Migration Guide

This document is no longer updated. For 8.5 and later releases, see the respective product documentation.

About Genesys

Genesys is the world's leading provider of customer service and contact center software - with more than 4,000 customers in 80 countries. Drawing on its more than 20 years of customer service innovation and experience, Genesys is uniquely positioned to help companies bring their people, insights and customer channels together to effectively drive today's customer conversation. Genesys software directs more than 100 million interactions every day, maximizing the value of customer engagement and differentiating the experience by driving personalization and multi-channel customer service - and extending customer service across the enterprise to optimize processes and the performance of customer-facing employees. Go to www.genesys.com for more information.

Each product has its own documentation for online viewing at the Genesys Documentation website or on the Documentation Library DVD, which is available from Genesys upon request. For more information, contact your sales representative.

Notice

Although reasonable effort is made to ensure that the information in this document is complete and accurate at the time of release, Genesys Telecommunications Laboratories, Inc., cannot assume responsibility for any existing errors. Changes and/or corrections to the information contained in this document may be incorporated in future versions.

Your Responsibility for Your System's Security

You are responsible for the security of your system. Product administration to prevent unauthorized use is your responsibility. Your system administrator should read all documents provided with this product to fully understand the features available that reduce your risk of incurring charges for unlicensed use of Genesys products.

Trademarks

Genesys and the Genesys logo are registered trademarks of Genesys Telecommunications Laboratories, Inc. All other company names and logos may be trademarks or registered trademarks of their respective holders.

The Crystal monospace font is used by permission of Software Renovation Corporation, www.SoftwareRenovation.com.

Technical Support from VARs

If you have purchased support from a value-added reseller (VAR), please contact the VAR for technical support.

Customer Care from Genesys: If you have purchased support directly from Genesys, please contact Genesys Customer Care. Before contacting Customer Care, please refer to the ***Genesys Care Support Guide for On-Premises*** for complete contact information and procedures.

Ordering and Licensing Information

Complete information on ordering and licensing Genesys products can be found in the ***Genesys Licensing Guide.***

Released by

Genesys Telecommunications Laboratories, Inc. www.genesys.com

Document Version: 80g_mg_02-2016_v8.0.001.85

Table of Contents

Preface

Welcome to the *Genesys Migration Guide*. The Genesys migration process involves the transition of current Genesys installations at customer sites to new releases of Genesys products and solutions.

This guide provides system-level information for the Genesys 7.x and 8.x releases to date, and assists the migration team in performing the migration process at customer contact centers.

Note: To consult previous versions of this guide, please visit the Genesys Documentation Website.
Or, order the Documentation Library DVD from Genesys Order Management by email at orderman@genesys.com.

You will find the following information in *Genesys Migration Guide*:

- Information for effective planning and execution of Genesys software migrations: from releases 6.x to 7.x., from releases 7.x to higher releases of 7.x., and to some 8.x releases.
- Interrelationships among Genesys products that are significant in negotiating the migration process.
- Step-by-step procedures for each stage of the migration process.

This Preface discusses the following topics:

Intended Audience

The *Genesys Migration Guide* is primarily intended for those involved in the migration process. The following list gives examples of the type of audience who would use this guide.

- Genesys personnel

  For example:

  - Genesys Account Team
  - Professional Services
  - Customer Care
  - System engineer(s)
- Members of the migration teams at customer sites

  For example:

  - Lead architect
  - Team project manager(s)
  - Implementation specialists for the various components and migration phases

This guide assumes that you have a basic understanding of:

- Computer-telephony integration (CTI) concepts, processes, terminology, and applications.
- Network design and operation.
- Your company's network configuration.
- Genesys Framework architecture and functions.

Document Conventions

This document uses certain stylistic and typographical conventions—introduced here—that serve as shorthands for particular kinds of information.

Document Version Number

A version number appears at the bottom of the inside front cover of this document. Version numbers change as new information is added to this document. Here is a sample version number:

72gets_ad_03-2006_v7.2.001.00

You will need this number when you are talking with Genesys Customer Care about this product.

Type Styles

Italic

In this document, italic is used for emphasis, for documents' titles, for definitions of (or first references to) unfamiliar terms, and for mathematical variables.

Examples:

- Please consult the *Genesys Migration Guide* for more information.
- *A customary and usual practice* is one that is widely accepted and used within a particular industry or profession.
- Do *not* use this value for this option.
- The formula, $x + 1 = 7$ where x stands for . . .

Monospace Font

A monospace font, which looks like `teletype or typewriter text`, is used for all programming identifiers and GUI elements.

This convention includes the *names* of directories, files, folders, configuration objects, paths, scripts, dialog boxes, options, fields, text and list boxes, operational modes, all buttons (including radio buttons), check boxes, commands, tabs, CTI events, and error messages; the values of options; logical arguments and command syntax; and code samples.

Examples:

- Select the `Show variables on screen` check box.
- Click the `Summation` button.
- In the `Properties` dialog box, enter the value for the host server in your environment.
- In the `Operand` text box, enter your formula.
- Click `OK` to exit the `Properties` dialog box.
- The following table presents the complete set of error messages T-Server® distributes in `EventError` events.
- If you select `true` for the `inbound-bsns-calls` option, all established inbound calls on a local agent are considered business calls.

Monospace is also used for any text that users must manually enter during a configuration or installation procedure, or on a command line:

Example:

- Enter `exit` on the command line.

Screen Captures Used in This Document

Screen captures from the product GUI (graphical user interface), as used in this document, may sometimes contain a minor spelling, capitalization, or grammatical error. The text accompanying and explaining the screen captures corrects such errors *except* when such a correction would prevent you from

installing, configuring, or successfully using the product. For example, if the name of an option contains a usage error, the name would be presented exactly as it appears in the product GUI; the error would not be corrected in any accompanying text.

Square Brackets

Square brackets indicate that a particular parameter or value is optional within a logical argument, a command, or some programming syntax. That is, the parameter's or value's presence is not required to resolve the argument, command, or block of code. The user decides whether to include this optional information. Here is a sample:

```
smcp_server -host [/flags]
```

Angle Brackets

Angle brackets indicate a placeholder for a value that the user must specify. This might be a DN or port number specific to your enterprise. Here is a sample:

```
smcp_server -host <confighost>
```

Related Resources

The following resources provide additional information that is relevant to Genesys software. Consult these additional resources as necessary.

Genesys

- *Genesys Technical Publications Glossary,* available on the Genesys Documentation website, provides a comprehensive list of the Genesys and computer-telephony integration (CTI) terminology and acronyms used in this document.
- Release Notes and Product Advisories, which are available on the Genesys Customer Care website at http://genesys.com/customer-care/.

Information about supported hardware and third-party software is available on the Genesys Documentation website and the Genesys Customer Care website in the following documents:

- *Genesys Supported Operating Environment Reference Guide*
- *Genesys Supported Media Interfaces Reference Manual*

Consult the following additional resources as necessary:

- *Genesys Hardware Sizing Guide*, which provides information about Genesys hardware sizing guidelines for the Genesys releases.

- *Genesys Interoperability Guide,* which provides information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.
- *Genesys Licensing Guide*, which introduces you to the concepts, terminology, and procedures relevant to the Genesys licensing system.
- *Genesys Database Sizing Estimator Worksheets* which provide a range of expected database sizes for various Genesys products.

For additional system-wide planning tools and information, see the release-specific listings of System Level Documents on the Genesys Customer Care website. These documents are accessible from the system level documents by release tab in the Knowledge Base Browse Documents Section.

Genesys product documentation is available on the:

- Genesys Customer Care website at http://www.genesys.com/customer-care/.
- Genesys Documentation website at http://docs.genesys.com/.
- Genesys Documentation Library DVD, which you can order by e-mail from Genesys Order Management at orderman@genesys.com.

Making Comments on This Document

If you especially like or dislike anything about this document, please feel free to e-mail your comments to Techpubs.webadmin@genesys.com.

You can comment on what you regard as specific errors or omissions, and on the accuracy, organization, subject matter, or completeness of this document. Please limit your comments to the information in this document only and to the way in which the information is presented. Speak to Genesys Customer Care if you have suggestions about the product itself.

When you send us comments, you grant Genesys a nonexclusive right to use or distribute your comments in any way it believes appropriate, without incurring any obligation to you.

Contacting Genesys Customer Care

If you have purchased support directly from Genesys, please contact Genesys Customer Care.

Before contacting Customer Care, please refer to the *Genesys Care Support Guide for On-Premises* for complete contact information and procedures.

Part

1 Overview of Migration Process

This Part of the *Genesys Migration Guide* presents an overview of the migration process and contains the following chapters:

Note: This migration information includes 7.x products as new 7.x versions are released, and 8.x products as new 8.x versions are released, as well as any changes to support information for maintenance versions of previously released products.

Chapter

1 Migration Roadmap

Migration is a transitional process during which an existing customer who has installed Genesys products and solutions acquires new releases of these products and solutions.

For some clients, migration might include installing new Genesys products (deployment) or expanding the existing solutions to include new components (upgrade).

This chapter introduces you to the migration process and discusses the following topics:

Note: This guide includes 7.0.x and 7.x products, and some 8.x products. The product information will continue to be updated as additional 7.x and 8.x versions are released.

Overview of Migration Process

Figure 1 shows the scope of the Genesys migration process.

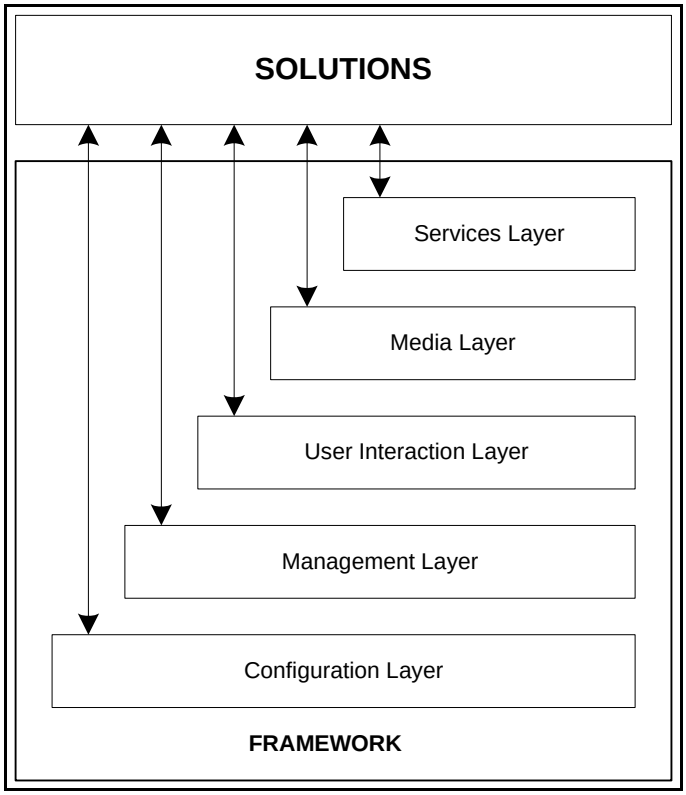

Figure 1: Scope of Migration

See *Framework 8.0 Deployment Guide* for an explanation of the different layers.

Migration/Upgrade Order

Migration is generally done in the following order:

1. Install License Manager 9.5.

   See Chapter 2, "Licensing Migration," on page 47 and chapters on specific solutions in this guide for components that require licensing.

2. Upgrade your hardware and your operating system and/or database, if necessary.

   This must be done before migrating your Genesys product.

> **Note:** See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability; and contact Technical Support for deployment instructions before migrating Configuration Layer.

3. Upgrade Configuration Server Proxy (if applicable).

   For further information about the Configuration Server Proxy, see Part Two, "Framework Migration" on page 59 in this guide.

4. Set up the migration environment, including Configuration Conversion Wizard (CCW).

   See Part Two, "Framework Migration" on page 59 in this guide.

5. Use CCW to convert existing data structures from Configuration Database into appropriate 7.x format.

6. Upgrade Configuration Layer.

   For further information about the Configuration Layer, see Part Two, "Framework Migration" on page 59 in this guide.

7. Upgrade Management Layer.

> **Note:** This can also be done later since Local Control Agent (LCA) 7.0.1 is compatible with LCA 7.2.

8. Upgrade core components.

   See Part Two, "Framework Migration" on page 59 in this guide for Stat Server upgrade instructions and Part Five, "T-Server Migration" on page 407 in this guide.

9. Migrate Solution components.

   See chapters on specific solutions in this guide.

Preparations for Migration

Preparing for migration and analyzing the business and operational environment are necessary for a successful migration.

1. Genesys Account Team works with the customer to do the following:
   - Identify the company's reasons for migrating to the latest release of Genesys solutions.
   - Define the roles and responsibilities of the participants in the migration process.

2. Genesys then provides the software and technical assistance to ensure a successful migration.
3. If Professional Services (PS) is engaged, the Account Team informs the PS representative of the company's customized needs.

Note: Genesys strongly recommends that anyone considering migration should engage Genesys Professional Services for the task.

4. Training of the migration team and contact center personnel using and maintaining the new system is arranged at the customer site.

Note: Several training classes are available for customers engaged in the migration project. A complete listing may be found on the Genesys website.

5. Analysis of the customer's business and operational environment by the Genesys Professional Service Architecture Practice team, a Customer Care Manager (CCM), or a system engineer includes:
   - Becoming familiar with the customer's existing system management and business requirements.
   - Examining the existing technology of the company's contact center and its overall architecture (network, hardware, and software).
   - Identifying anticipated growth or other changes in the company's operations.

Approaches to Migration

There are several different approaches to migration.

Basic Approaches

- Overnight approach

  In the overnight approach, all of the current applications are turned off and the new 7.x applications are turned on in one night.
- Phased approach (component-based)

  The component-based, phased approach turns off all the applications of the same type or all the components of a specific solution and then turns on new versions of those same-type applications or solution-specific components. (Same-type applications include all T-Servers; an example of all components of one solution is Enterprise Routing components.)
- Phased approach (site-by-site)

  The site-by-site phased approach migrates all of the Genesys applications one site at a time until all of the company sites are migrated. This approach starts with the site or data center that contains the Configuration Database and the Configuration Server.

- Rollback procedures

Rollback Procedures

The *Genesys Migration Guide* presents an approach that Genesys recommends, which includes rollback procedures at each major step in the migration process. The purpose of the rollback procedures is to secure the system against loss of data or functionality during the migration. Should the need arise, the rollback procedures can return a newly installed component to its original condition before migration.

Solutions/Components and Environment Compatibility

Interoperability between 6.1, 6.5, 7.0.x, and 7.x components is discussed in the solution sections in this guide. For example, operating in a mixed environment involves working with 7.2 components in a 7.1 environment, 7.0 components in a 6.x environment, or 6.x components in a 7.0 environment. Also, some 8.x migration paths, and additional 8.x products are being added as new products are released.

Chapter

2 Licensing Migration

This chapter discusses how to upgrade your licensing system implemented through the License Manager (FLEXlm lmgrd), vendor daemon, and license file.

This chapter contains the following topics:

In migrating from Genesys 7.x to Genesys 8.x, you may use the license control features specified in the license file. Existing 7.x components may use 7.x license features; 8.x components may use 8.x license features.

License Control Architecture

For a description and overview of the Genesys licensing system, see the *Genesys Licensing Guide*, Chapter 2: Licensing Concepts.

Upgrading Licensing System

When upgrading a product to 7.x or 8.x, check to see if there is a need for a licensing upgrade. For a complete list of products and components which perform license checking, see the *Genesys Licensing Guide* or contact Genesys Technical Support.

In most cases, you may use the existing configuration for the new license control system. Migration scenarios are described later in this chapter.

Alternatively, it is possible to change the license control configuration when upgrading; for example, to replace a single-server configuration with a three-server redundancy configuration. In this situation, you must first install the selected new target configuration and then remove the current configuration. To change the license control configuration, refer to the *Genesys Licensing Guide*, Appendix C: Ordering Licenses; "Selecting License Server Configuration."

Note: Genesys recommends that you archive old license file(s), application executables, FLEXlm 7.1, and Genesys 7.x vendor daemon, for use in case of a potential rollback. A rollback is possible for all supported license control configurations.

To Upgrade Licensing Control System

To upgrade the license control system, follow the steps provided in this section.

Note: This is a general description. Specific details for license control configuration are provided throughout this guide.

1. Request the appropriate license file for your products, configuration, and computer hosts. Refer to the Genesys Licensing Guide, Appendix C: Ordering Licenses; "Selecting License Server Configuration."
2. Copy it to the proper directory.

   In general, new licenses are needed only for components that are updated. If both old and new license files are issued for the same host, it is possible to merge them into one license file. However, depending on the migration option, it would also be possible to issue new license files for both the unchanged and the upgraded components.

The license file configuration may depend on several factors. You may provide the relevant information to Order Management when requesting license files:

- Platform the application is running on: On some new platforms, applications are built with 11.9; the suggested license server is 11.9
- Platform the license server is running on: Some new platforms require the 11.9 license server, even if applications are still on older platforms.

The license file will be generated depending on the platform the license logic is executed on:

- If licenses are counted, file generation is based on the license server platform.
- If licenses are uncounted, file generation is either based on the application's platform (if no server is used), or on the license server platform.

Note: In keeping with the FLEX compatibility rules, the new license server also supports the old applications and their available `FEATURE` entries in the license file.

You must ensure there is no conflicting information in the resulting license file(s). In particular, for multiple entries with the same feature name, you should retain only the valid entry and remove the others manually.

If you decide to keep the double entries, only the first line of a given feature is taken into account, and the other lines are ignored. In addition, this is logged by the license server.

Note: This is particularly relevant for feature names that are the same for Genesys 7.x and 8.x, for example, CIW and GIS. In this case, the feature line with the 7.x or8.x version should be kept, and the other line(s) with the same feature should be removed. You must remove them manually.

3. Install the new License Server 11.9.

   The Genesys installation automatically installs both FLEX License Manager and the new Genesys vendor daemon in the selected target directory.

   Note: If your current FLEX License Manager is 9.5 or later, you may keep it, unless operating system support or IPv.6 support requires 11.9. After installation, you should remove the License Manager installed by Genesys, and if necessary, copy the new Genesys vendor daemon and other installed files to the required directory. Remove the License Manager manually; removal is not performed automatically.

4. Upgrade the license control system.

   The new license server is started by:

   ```
   lmgrd -c license.dat
   ```

   Note: This procedure provides the same functions previously available by using `run.bat` script.

5. Configure and install the new Genesys 7.x or 8.x components.

   Specify the license control options for new Genesys 7.x or 8.x applications in the configuration environment. Depending on the application, you might also need to configure objects that are the subject to license control.

   Note: The application specific details for license control configuration are described in the migration chapters in this guide.

6. Start the new Genesys 7.x or 8.x components and connect the Genesys 7.x or 8.x application to the new license server using one of the following options:

   a. Use command line option.

      To start a server application with the new license file, specify the following in the startup command line for the application:

      ```
      -l [license file name or license server location]
      ```

   b. Rely on application settings for license control in the Configuration Server for location of license file or *license server port@host address*.

      See the *Genesys Licensing Guide* for further information on how to start applications.

   Note: Generally, Genesys 7.x or 8.x applications rely on license configurations in the Configuration Server without using command line specifications. However, you should check for application specific exceptions: for example, Call Concentrator 7.0 requires specification in the command line.

7. Ensure that everything works correctly, then, uninstall the software that is no longer needed, such as the old application and old license server.

Methods for Upgrading Licensing System

This section describes various methods for upgrading the licensing control system:

- Running old and new versions of license server on different hosts: see “Running Two Versions of License Server” on page 51.
- Replacing the old version of a single license server by a new one: see “Replacing Existing License Server” on page 52.

- Upgrading three-server redundancy: see "Upgrading Three-Server Redundancy" on page 53.

It is not possible to run both old and new Genesys vendor daemons concurrently on the same host.

Note: While replacing your license server, you may continue running your applications. After the new license server is activated, replace the migrated components with the new versions.

Running Two Versions of License Server

You may upgrade by installing the new 8.x licensing system while leaving the current system intact. If any complications occur, you may easily perform a rollback to the previous configuration.

Note: Running two versions of license servers in parallel requires a second computer because you must run the license servers on different hosts.

To Run Two Versions of License Server

1. Select a host for the new License Server 11.9.

Warning! This cannot be the computer where the old license server is installed.

2. Order new licenses from Genesys using information about the selected host.

   Note: New licenses are required only for new or updated components. Unchanged components do not need new licenses.

   See Appendix C, "Ordering Licenses" in the *Genesys Licensing Guide* for information on how to order licenses.

3. Install License Server 11.9 on the selected host.

   See the *Genesys Licensing Guide* for installation instructions.

4. Set up the license file with license data for 8.x applications on the host for the new License Server 11.9.

   See the *Genesys Licensing Guide* for detailed instructions.

5. Start License Server 11.9.
6. Install the Genesys 8.x application, pointing to the new license server or license file.
7. Modify the application configuration for the new Genesys 8.x application, if necessary.

> **Note:** See component sections of this guide to identify application-specific changes in licensing configuration.

8. Stop the 7.x application.
9. Start the 8.x application.
10. Monitor the 8.x application to ensure it is operating correctly.
11. If the new system is operating correctly, uninstall the 7.x application.

Replacing Existing License Server

If you replace the existing license server, you do not need a second host to run the new License Server 11.9.

To Replace Existing License Server

1. Order new licenses from Genesys using information about the current license server host.

   > **Note:** New licenses are required only for new or updated components. Unchanged components do not need new licenses. However, it is possible to issue a completely new license file for both unchanged and upgraded components.

   See the *Genesys Licensing Guide* for information on how to order licenses.
2. Install License Server 11.9 on the same host, but in a separate directory.

   > **Note:** Rollback to the old configuration is easier if different directories were used.

3. Use the same host and port parameters as with License Server 7.x.

   > **Note:** This avoids restarting the old applications after license server upgrade.

   See the *Genesys Licensing Guide* for installation instructions.
4. Combine 7.x and 8.x license `FEATURE`s. This allows migration of a given component to Genesys 8.x release while you are still running some 7.x components. Add 8.x licenses to the 7.x license file or vice versa.

   See the *Genesys Licensing Guide* for instructions on modifying license files.
5. Configure the new Genesys 8.x applications in Configuration Server.

   See component sections of individual chapters of this guide to identify application-specific changes in licensing configuration.

6. Install Genesys 8.x application, pointing it to the new license server or the appropriate license file.
7. Stop License Server 7.x.

Note: You should stop the old license server just before starting the new one. You should install the License Server 11.9 and configure the components while the old license server is running. This increases the time that the license server is available.

8. Start License Server 11.9.
9. Stop the Genesys 7.x application.
10. Start the Genesys 8.x application.
11. Monitor the Genesys 8.x application to ensure it is operating correctly.
12. Uninstall the Genesys 7.x application.

Upgrading Three-Server Redundancy

For three-server redundancy configuration, it is recommended to replace the old configuration with a new one.

It is possible to run both the old and new three-server redundancy configurations in parallel (similar to the single server configuration) but this would require six computers for the license servers.

Installing the new three-server redundancy configuration on the same computers as the old one has the least impact on old applications. This procedure avoids restarting them with new license information.

Note: The next procedure is based upon the assumption that you will be following these recommendations. If you decide to change the computers or run two three-server redundancy configurations in parallel, the migration steps should be changed to accommodate these modifications.

To Upgrade Three-Server Redundancy

1. Order new licenses from Genesys using information about the current license server hosts and generate a license file for all three license servers.

   Note: New licenses are only required for new or updated components. Unchanged components do not need new licenses. However, it is possible to issue a new license file for both unchanged and upgraded components.

2. Install License Server 11.9 on the same hosts as the previous three-server redundancy configuration, but in separate directories.

> **Note:** Rollback to the old configuration is easier if different directories are used.

3. Use the same hosts and port parameters as with License Server 7.x.

   See the *Genesys Licensing Guide* for installation instructions.

4. Combine Genesys 7.x and 8.x license `FEATURE`s. This allows migration of a given component to Genesys release 8.x while you are still running some other Genesys 6.x components. Add 7.x licenses to the 8.x license file or vice versa.

   See the *Genesys Licensing Guide* for instructions on modifying license files.

5. Configure the new Genesys 8.x applications in Configuration Server.

   See component sections of this guide to identify application-specific changes in licensing configuration.

6. Install Genesys 8.x application, pointing it to the new three-server redundancy license server and the appropriate license file.

7. Stop the individual license servers of the existing three-server redundancy configuration.

> **Note:** The three-server redundancy servers should be stopped just before starting the new ones. You should perform License Server installation and component configuration while the old three-server redundancy is running. This increases the time that license servers are available.

8. Start new License Server 11.9 on all three hosts.
9. Stop the Genesys 7.x application.
10. Start the Genesys 8.x application.
11. Monitor the Genesys 8.x application to ensure it is operating correctly.
12. Uninstall the Genesys 7.x application.

Upgrading Licensing System with Multiple Vendors

You may use FLEX to control not only Genesys products but other third-party products, as well. In this situation, it is possible to have:

1. Separate license server instances for Genesys and for external products.

2. Same License Manager to control both Genesys vendor daemon and license file, and external products, each with its own vendor daemon and license file.

To Upgrade Single-Server Configuration with Multiple Vendors

To upgrade a single-server configuration with multiple vendors, use the following steps.

Note: Multiple vendor daemons on the same server machine are only possible if they are from a different vendor.

1. Request a new Genesys license file.
2. Install and configure the new Genesys 8.x application.
3. Upgrade FLEX to version 11.9 if an upgrade has not already been performed. For example, a License Manager upgrade may have been previously required by a third-party software.

   Note: Due to FLEX compatibility rules, Genesys software also works with newer versions of the License Manager.

4. Upgrade Genesys vendor daemon.

   The Genesys installation automatically installs both FLEX License Manager and the new Genesys vendor daemon in the selected target directory.

   If your current FLEX License Manager is 9.5 or later, you may keep it, unless operating system support requires 11.9. For this purpose, after installation, remove the License Manager installed by Genesys. If necessary, copy the new Genesys vendor daemon and other installed files to the required directory. Remove the License Manager manually; removal is not performed automatically.

   Note: The third-party vendor daemon does not need to be upgraded.

See Figure 2 on page 56 for an example of this configuration.

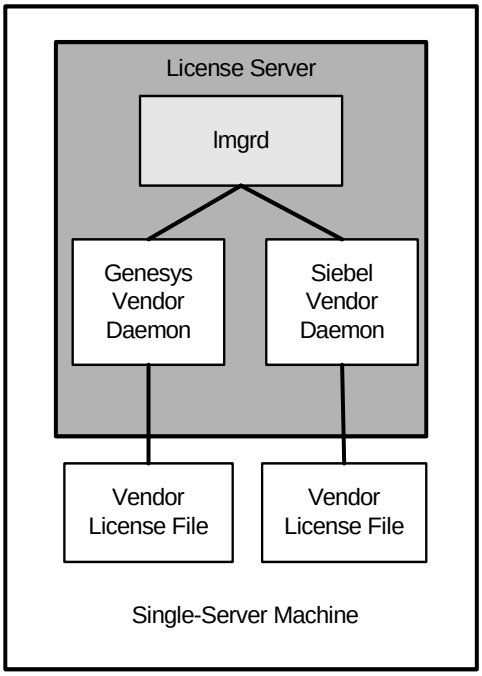

Figure 2: Single-Server Configuration with Multiple Vendors (example)

To Upgrade Multiple, Independent-Servers Configuration with Multiple Vendors

To upgrade multiple, independent-servers configuration with multiple vendors, follow these steps:

1. Request a new Genesys license file.
2. Install and configure the new Genesys 8.x application.
3. Upgrade FLEX on one or more servers.

   Upgrade FLEX to version 11.9 if an upgrade has not already been performed. For example, a License Manager upgrade may have been previously required by a third-party software.

   Note: Due to FLEX compatibility rules, Genesys software also works with newer versions of the License Manager..

4. Upgrade Genesys vendor daemon on one or more license servers.

   The new Genesys installation automatically installs both FLEX 11.9 manager and the new Genesys vendor daemon in the selected target directory.

   If your current FLEX License Manager is 9.5 or later, you may keep it, unless operating system support, or IPv.6 support, requires 11.9. For this purpose, after installation, remove the License Manager installed by Genesys. If necessary, copy the new Genesys vendor daemon and other installed files to the required directory. Remove the License Manager manually; removal is not performed automatically.

Note: The third-party vendor daemons on the license servers do not need to be upgraded.

See Figure 3 for an example of this configuration.

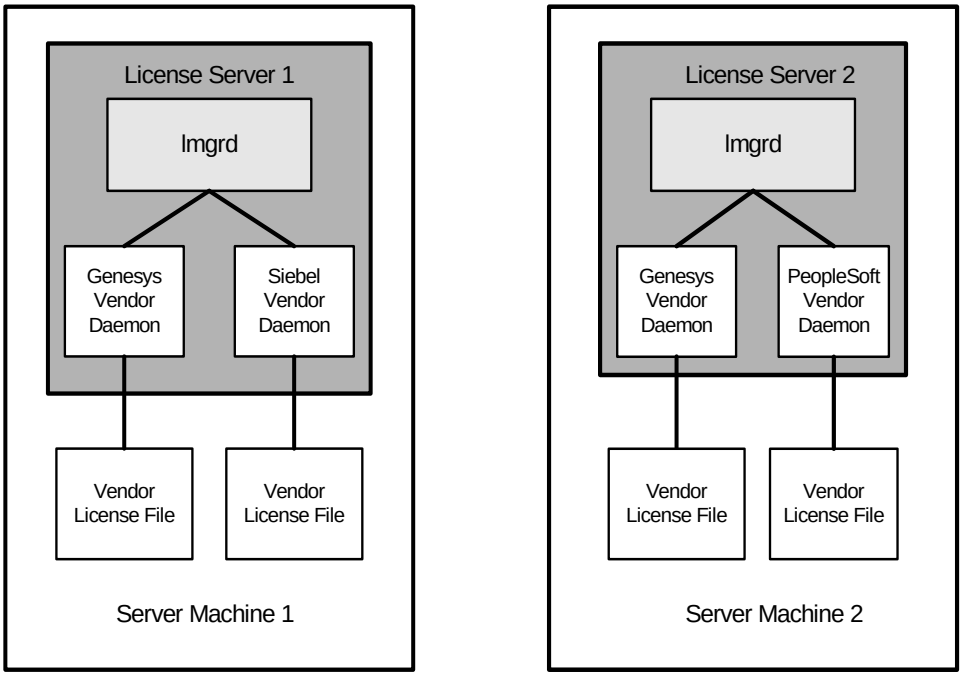

Figure 3: Multiple, Independent-Servers Configuration (example)

Part

2 Framework Migration

Note: For Management Framework, this part of the Genesys Migration Guide provides information about migration to versions 8.1.3 or earlier. For information about migration to releases 8.5.0 and later, see the *Management Framework Migration Guide*, available on the Genesys Documentation website.

The chapters in this Part describe the migration process from:

- Releases 7.6 and 8.0 of Genesys Management Framework to the latest 8.1, as applicable.
- Releases 7.6, 8.0, and 8.1 of other Genesys Framework components to the latest 8.5, as applicable.

This Part covers the following:

- Migration order for the Genesys Framework, including the Configuration Database conversion.
- Interoperability information for Framework components.
- Migration instructions.

The information is divided into the following chapters:

- Chapter 3, "Introduction to Framework Migration," on page 61 discusses the preliminary migration procedures and component compatibility. It provides an overview of the Framework migration process and of the Configuration Conversion Wizard (CCW) used for data conversion.
- Chapter 4, "Setup of Migration Environment," on page 73 discusses the steps you should take prior to database conversion.
- Chapter 5, "Migration of Configuration Database," on page 83 describes the Configuration Database migration procedure. It also describes how to convert a Configuration Database from single-tenant to multi-tenant, and from a single-language database to a multi-language database using UTF-8 encoding.

- Chapter 6, "Update of Configuration Database Locale," on page 99 describes the process of updating the locale of an 8.1.1 or later Configuration Database.
- Chapter 7, "Changes in Framework," on page 103 describes major changes in Framework architecture and configuration option changes in each server component.
- Chapter 8, "Upgrade of Framework Components," on page 137 describes how to upgrade applications that belong to the Genesys Framework, after you have successfully converted the configuration data.
- Chapter 9, "Migrating Genesys Administrator," on page 147 describes how to migrate to the latest version of Genesys Administrator, and also describes major changes in Genesys Administrator functionality and configuration options.
- Chapter 10, "Migrating Genesys Administrator Extension," on page 165 describes how to migrate to the latest version of Genesys Administrator Extension, and also describes major changes in Genesys Administrator Extension functionality and configuration options.
- Chapter 11, "Load Distribution Server Migration," on page 215 describes migration from release 6.5 or 7.0 to release 7.1 of Load Distribution Server (LDS), and configuration option changes in LDS release 7.0 and 7.1.
- Chapter 12, "Stat Server Migration," on page 221 describes migration to release 7.x of Stat Server from prior releases beginning with release 6.5. It also discusses changes in Stat Server behavior and configuration.
- Chapter 13, "Integration Server and Software Development Kits Migration," on page 241 explains how to upgrade from version 6.1, 6.5.0, 6.5.1, or 7.x to version 7.0, 7.1, 7.2, 7.5 or 7.6, of Genesys Integration Server (GIS) and related Software Development Kits (SDKs).

See the following appendix for further information:

- Appendix A, "Login Procedure," on page 1821 describes a standard login procedure for a Genesys Framework GUI application.

In addition, the *Genesys Interoperability Guide* includes tables with interoperability information about 6.1, 6.5, 7.x, and some 8.x releases of Genesys products.

Chapter

3 Introduction to Framework Migration

This chapter discusses preliminary migration procedures and component compatibility, and gives an overview of the Framework migration process and the Configuration Conversion Wizard (CCW) used for data conversion.

This chapter contains the following topics:

Note: For Management Framework, this chapter provides information about migration to versions 8.1.3 or earlier. For information about migration to releases 8.5.0 and later, see the *Management Framework Migration Guide*, available on the Genesys Documentation website.

Preliminary Migration Procedures

Note: If you want to upgrade your operating system, you must do this before migrating your Genesys product.

The migration process includes these preliminary procedures for Framework 8.1:

1. Review Chapter 1, "Migration Roadmap," in this guide.
2. Examine the order in which you must upgrade the Genesys software required for Framework 8.1. See "Order of Migration for 8.1" on page 63.

3. Examine "Component Changes for Framework" on page 103. You might also want to look at "Configuration Option Changes for Framework" on page 118.

   Note: The tables in Chapter 7 on page 103 discuss only changes that directly affect the migration of this product. For complete information about what is new in this release of Framework and how the 8.1 release functions, see the *Framework Deployment Guide*. For a complete list of documentation relevant to the migration of this product, see "Reference Materials".

4. Review the licensing requirements for Framework 8.1. See Chapter 2, "Licensing Migration".

   Note: Beginning with release 7.0, you do not need a license to operate Stat Server. Stat Servers prior to release 7.0 did need a license.

5. Check the interoperability of the Framework 8.1 components during the upgrade procedures. See the *Genesys Interoperability Guide* for more information.
6. Review the capabilities of the Configuration Conversion Wizard (CCW) on page 69.
7. Review other issues pertaining to the migration of Framework to release 8.1. See "Additional Information about Migration" on page 69.

   Note: The Stat Server Application, Application Template, and Configuration Wizard are packaged separately from Framework. These components now reside on the Real-Time Metrics Engine DVD. See the "Stat Server Migration," chapter for more information.

Reference Materials

Consult these additional resources as necessary:

- *Framework 8.1 Deployment Guide*

For system-level information, consult the following guides on the Genesys Documentation Wiki and the Genesys Technical Support websites in the following documents:

- *Genesys 8.1 Security Deployment Guide*
- *Genesys Hardware Sizing Guide*
- *Genesys Licensing Guide*
- *Genesys Supported Media Interfaces Reference Guide*
- *Genesys Supported Operating Environment Reference Guide*
- *Genesys Interoperability Guide*

Order of Migration for 8.1

This section discusses multi-site/single-site and multi-tenant migration, migration order, and laboratory testing and rollback.

Multi-Site/Single-Site and Multi-Tenant Migration

It is possible to migrate all sites or all tenants simultaneously. It is possible to migrate separate sites independently. There can also be interoperability of different versions at different sites.

The conversion procedures for a Multi-Tenant environment and an Enterprise (Single-Tenant) environment are the same.

Migration and Upgrade Order

The installation, configuration, and operation of Genesys software in a contact center are solution-based instead of component- based. This approach calls for:

- Common functionality that integrates components.
- Applications that perform solution-level management.
- An enhanced configuration data model that supports new functions and configuration objects.

Because of these changes, migration from previous releases must be performed gradually in two stages.

Warning! If you are using Configuration Server Proxies in your distributed configuration environment, you must convert the master Configuration Server and then convert every Configuration Server Proxy in your environment before you proceed to migrate other Framework components. See Step 3 on page 139 for details.

Stage One

The first stage involves:

- Setting up DB Server 8.1 to access the existing and subsequently the new Configuration Databases.
- Migrating your Configuration Database, using the Configuration Conversion Wizard (CCW) to automate the process.
- Setting up Configuration Server 8.1 to handle the reformatted database.

The Framework Configuration Layer upgraded during this stage is fully backward compatible, and you can use it to run existing previous installations.

For a detailed description of the first migration stage, refer to:

- Chapter 4, “Setup of Migration Environment,” on page 73.
- Chapter 5, “Migration of Configuration Database,” on page 83.

Conversion Permissions

Migrating your database might involve such tasks as creating a table space, user, or database. To successfully perform a database migration, you must have database administrator (DBA) permissions or ask your DBA for help.

Warning! Contact your DBA before migrating your Configuration Database if your database administrator has added any additional columns to the database tables. Configuration Conversion Wizard does not migrate custom tables or columns that your DBA might have added to the Genesys Configuration Database.

Terminology

When discussing various databases in this and other Framework-related chapters, the term *existing database* refers to the Configuration Database you have been using in your previous Genesys environment.

Stage Two

During the second stage you will deploy Framework 8.1 components. This does not affect your existing configuration. Existing 7.x and 8.0 installations can continue operating throughout the upgrade process and after the upgrade is completed. Chapter 8, "Upgrade of Framework Components," on page 137, describes this second stage.

Laboratory Testing and Rollback

Given the changes introduced in recent releases, Genesys strongly recommends that you test the new installation under laboratory conditions before using it in a production mode. To preserve the possibility of a rollback to the previous environment, do not remove existing components or their configuration in the Configuration Database from the environment until normal operation of the 8.1 installation is tested and verified in production mode.

For information on new functionality and architectural changes implemented in release 8.1, refer to the *Framework 8.1 Deployment Guide.*

Interoperability Among Framework Components

The term *interoperable* means that different versions of Genesys solutions, components, or options can work together compatibly during the migration process.

Interoperability of Genesys products can occur at two levels of migration:

Two levels of interoperability

- **Interoperability at the suite level** means combining different versions of solutions and options during the migration process.

Example: You can migrate to the Configuration and Management Layers of Framework 8.1 and continue using other 7.x and 8.0 components. See the *Genesys Interoperability Guide* for information about suite-level interoperability.

- **Interoperability at the solution-specific level** means combining different versions of the components of a particular solution while upgrading them sequentially during the migration process.

  The mixture of components may include executables, applications, routing strategies, scripts, and data that comprise a particular solution.

  As you upgrade each of the components in sequence, you will need to know if each is backward-compatible with the other Framework components.

  If you have several components to upgrade, determine if the first components you upgrade to release 8.1 will be backward compatible with the components that are not upgraded yet.

The following section provides the answer to this important question.

Compatibility Among Framework Components

Framework 8.1 includes these components, listed by layer:

Configuration Layer

- Configuration Server
- Configuration Database
- Configuration Manager

The Configuration Layer also uses DB Server, a Services Layer component, to access the Configuration Database.

In addition, the Configuration Layer includes a number of Genesys wizards. If you have used release 8.0 or earlier wizards, replace them with corresponding 8.1 wizards using regular uninstallation and installation procedures.

Note: The Management Framework Configuration Wizard has not been updated for 8.1. The 8.0 version is compatible with Management Framework.

Management Layer

- Local Control Agent (LCA)
- Solution Control Server (SCS)
- Solution Control Interface (SCI)
- Message Server
- Log Database
- Genesys SNMP Master Agent (an optional component to interface the Management Layer with a third-party Network Management System or NMS)

The Management Layer also uses DB Server, a Services Layer component, to access the Log Database.

Starting in release 8.0, LCA also includes the Genesys Deployment Agent, which is used by Genesys Administrator (a new interface in Release 8.0) to deploy Genesys Applications and Solutions to the Host on which the LCA and the Genesys Deployment Agent are deployed.

User Interaction Layer

- Genesys Administrator

Genesys Administrator is a new component in release 8.0. It is a web-based interface that combines most of the functionality of Configuration Manager and Solution Control Interface.

Media Layer

- T-Server
- HA Proxy
- Load Distribution Server

Refer to the chapter "T-Server Migration Procedures," for information about migrating T-Server and HA Proxy.

Services Layer

- DB Server
- Stat Server

Refer to the chapter "Stat Server Migration," for information about migrating Stat Server.

Configuration Layer Components Compatibility

Configuration Server 8.1

Configuration Server 8.1 operates with these versions of the other Framework components:

- DB Server releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0
- Configuration Manager release 8.1
- Local Control Agent releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Solution Control Server releases 8.1, 8.0, 7.6, 7.5, 7.1,and 7.0
- Message Server releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Genesys Administrator release 8.1, 8.0
- T-Server releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0
- HA Proxy releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0
- LDS releases 7.2, 7.1, and 7.0

- Stat Server releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0

Warnings!
- Configuration Server Proxy works only with the same or higher version of Configuration Server.
- To ensure faultless operation, all Configuration Servers in the environment must be running the same release. The only exception to this is during the migration process, when different Configuration Servers can be temporarily running different releases before being upgraded. Temporarily means during an upgrade procedure that requires stopping of master servers, upgrading them, starting, stopping, and upgrading proxies. Anything beyond that period leads to limited functionality on the Proxy side, and should be avoided in production.

Note: Starting in release 7.5, Configuration Server does not support backward compatibility of Keep-Alive Protocol (KPL) for release 6.5 clients. If you used KPL with previous Genesys versions, consider using Automatic Disconnect Detection Protocol (ADDP) after you upgrade to release 8.1. Refer to the *Framework Deployment Guide* for information about ADDP.

Configuration Manager 8.1

Configuration Manager 8.1 operates with these versions of the other Framework components:

- Configuration Server release 8.1 only

Management Layer Components Compatibility

Local Control Agent 8.1

LCA 8.1 operates with 8.x and 7.x versions of any other Framework server components.

Solution Control Server 8.1

SCS 8.1 operates with these versions of the other Framework components:

- Local Control Agent releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Solution Control Interface releases 8.0, 7.6, 7.5, 7.1, and 7.0
- Message Server releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Genesys SNMP Master Agent releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Configuration Server releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0
- Genesys Administrator release 8.1 and 8.0

Solution Control Interface 8.0

SCI 8.0 operates with these versions of the other Framework components:

- Configuration Server releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0
- Solution Control Server releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Message Server releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- DB Server releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0

Message Server 8.1

Message Server 8.1 operates with these versions of the other Framework components:

- DB Server releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0
- Local Control Agent releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Solution Control Server releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Log Database 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- T-Server releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0
- HA Proxy releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0
- LDS releases 7.2, 7.1, and 7.0
- Stat Server releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0
- Genesys SNMP Master Agent releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Configuration Server releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0

SNMP Master Agent 8.1

Genesys SNMP Master Agent 8.1 operates with these versions of the other Framework components:

- Local Control Agent releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Solution Control Server releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Message Server releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Configuration Server releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0

User Interface Layer Components Compatibility

Refer to the chapter “Migrating Genesys Administrator” for information about Genesys Administrator.

Media Layer Components Compatibility

Refer to the T-Server Part of this guide for information about T-Server and HA Proxy.

Services Layer Components Compatibility

DB Server 8.1

DB Server 8.1 operates with these versions of the other Framework components:

- Configuration Server releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0
- Local Control Agent releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Message Server releases 8.1, 8.0, 7.6, 7.5, 7.1, and 7.0
- Stat Server releases 8.1, 8.0, 7.6, 7.5, 7.2, 7.1, and 7.0
- Solution Control Interface releases 8.0, 7.6, 7.5, 7.1, and 7.0

Stat Server 8.1 Refer to the chapter "Stat Server Migration," for information about Stat Server.

Additional Information about Migration

The following information also pertains to the migration of Framework to release 8.1.

- If you have a distributed configuration environment supported by Configuration Server Proxy, you must upgrade the Configuration Database, master Configuration Server, then upgrade all Configuration Server Proxies (in that order) *before* you proceed with the migration of other components. Keeping an old Configuration Server Proxy for a site where applications will remain at the old release is not recommended. See Step 3 on page 139 for more information.
- Review suite-level migration issues. The section on Stat Server changes in the Stat Server chapter of this guide, for instance, lists some algorithm changes in Stat Server that affect statistical values sent to clients.

Note: For an overview of migration issues, please see Chapter 1, "Migration Roadmap," of this guide.

About CCW

To make the existing Configuration Database compatible with Configuration Server 8.1, you must convert the structure of the database to 8.1 format.

Use the Genesys Configuration Conversion Wizard (CCW) to convert existing data structures to the 8.1 format. CCW performs automatic migration from any release to release 8.1. When migrating the Configuration Database, CCW makes a copy of the original database, and migrates that copy. This enables you to keep the original Configuration Database and Configuration Server in service while you are performing the migration.

CCW only converts the database structures originally created with the Genesys initialization scripts. CCW does *not* convert any custom tables or columns that you might have added to the Configuration Database.

After the conversion, CCW generates a detailed report of conversion statistics, including database changes, for your review. The same information is stored in a log file that CCW creates for each working session.

CCW can also help you:

- Update localization information in the Configuration Database by executing localization scripts.
- Export data from your Genesys Configuration Database into a text file.

Note: CCW only exports data from the database structures originally created with the Genesys initialization scripts.

- Import the data, which you have previously exported with CCW, into an initialized, empty Genesys Configuration Database. Both databases—the one from which the data was exported and the one into which the data is being imported—must be initialized using the initialization scripts from Configuration Servers of the same release. The target database, the one into which you are importing data, must be empty.
- Check the business logic of data in your Genesys Configuration Database. The business logic rules imply certain patterns in associations between configuration objects in addition to the Configuration Server integrity rules. For example, a report on business logic verification might indicate which Places have no DNs assigned to them, which Agents have no Logins assigned to them, and so on.

You might find these functions useful when you prepare your release 8.0 or earlier database for migration, or when you work with your 8.1 database.

Migrating from Release 8.1.1 or Later

If you are migrating from release 8.1.1 or later, you do not have to migrate your data to get new data types and enumerators that have been added in the new Configuration Database schema. If you want to use the new types and enumerators, you can use CCW to update only the localization information stored in the database. Otherwise, you do not need to do anything - the new version of Configuration Server 8.1 will run against your current Configuration Database. Future versions of Configuration Server 8.1will include extensions to the list of application types you can utilize without migrating your system.

Single-Tenant to Multi-Tenant Conversion

Starting in release 8.1.3, you can use CCW to convert your single-tenant Configuration Server to a multi-tenant Configuration Server. In effect, your enterprise (single-tenant) environment becomes a multi-tenant environment, with only one tenant—yours—as the root (or `Environment`) tenant. This provides you with the flexibility to perhaps expand or better organize your operations.

You can perform this conversion at any time, although Genesys recommends that you do so when you are migrating to a new release or locale of the Configuration Database. See “Migrating a Configuration Database from Single-Tenant to Multi-Tenant” on page 93 for more information.

Conversion to Multi-Language Support

Starting in release 8.1.3, you can use CCW to convert an existing Configuration Database with single-language character coding, to a multi-language database using UTF-8 encoding.

You can perform this conversion at any time, although Genesys recommends that you do so when you are migrating to a new release or locale of the Configuration Database. See “Multi-Language Configuration Databases” on page 96 for more information.

Chapter

4 Setup of Migration Environment

This chapter discusses the steps you must take prior to converting the Configuration Database.

This chapter contains the following topics:

Note: This chapter provides information about setting up your environment for migration to versions 8.1.3 or earlier. For information about migration to releases 8.5.0 and later, see the *Management Framework Migration Guide*, available on the Genesys Documentation website.

Calculating the New Size of the Configuration Database

Check the size of the existing Configuration Database and calculate the size of the new database. Use the *Genesys Database Sizing Estimator Worksheets*, if necessary. If data storage capacity is limited, refer to the *Genesys Hardware Sizing Guide* to determine how much memory to allocate for every object in the contact center. Places, DNs, and Agents usually account for the majority of configuration objects.

For information on extending a database, refer to database management manuals or contact your database administrator.

Checking Configuration Data

For the migration of the Configuration Database to be successful, your existing data must be accurate. Some data integrity rules have changed since earlier releases, and Configuration Conversion Wizard uses the latest rules. When converting your data to the 8.1 database, CCW might encounter instances of configuration that do not comply with the 8.1 rules, and it will inform you of these instances.

Primary and Backup Servers

Most often, this applies to the configurations of primary and backup servers. In an 8.1 configuration, primary and backup servers:

1. Must be primary-backup pairs. That is, no backup servers can be configured for a server that is configured to be a backup server itself.
2. Must have one-direction references. That is, a backup server must not have a reference to its primary server in its `Backup Server` field.

For more information, about handling data inconsistencies, refer to “Resolving Data Inconsistency” on page 90.

Migrating a Changed Database Structure

Note the following issues about the use of CCW for converting the Configuration Database (and its importing and exporting procedures):

- Any modifications to the Configuration Database structure that you make directly in the database engine are considered to be foreign (custom-added). Foreign fields and tables are not migrated, and data from them is not exported.
- CCW does not transfer foreign tables (such as those used to record a state of the Configuration Database) during migration.
- Obsolete fields and tables of the original Configuration Database are removed during conversion after CCW migrates the data they contain. (Using a non-CCW import-export procedure does not prevent this removal.)

Note: CCW applies these rules to migration of a release 8.0 database or earlier to an 8.1 release.

Database Structure Modification Discovery

Migrating with CCW brings with it a database structure modification discovery procedure. This procedure detects:

- Foreign fields in Configuration Database tables
- Foreign tables
- Obsolete fields in Configuration Database tables and obsolete tables

The CCW discovery procedure generates a detailed report that is available for viewing from the `Configuration Database Information` pane. Clicking the button to the right of the `Database Structure` line on the pane opens a window that contains information about what the Configuration Database Structure wizard is currently connected to.

- If the discovery procedures does not find any changes to the database structure, the button's label reads `Original`. Clicking it reveals information about the original structure of the database.
- If the discovery process finds changes, the button's label reads `Modified` (and a warning sign icon appears next to the button). Clicking it reveals information about the modified structure of the database.
- If the discovery process, for any reason, is unable to determine whether there were any changes to the database structure, the button's caption reads `Unknown`.

The detailed report from the discovery process lists tables in the database, rows in tables, and fields of tables (with their data types, lengths, and whether nulls are allowed).

Changes to Enumerators—Now Business Attributes

Beginning with release 7.0.1 of the Configuration Layer, Business Attributes is the new name for Enumerators, and Attribute Values is the new name for Enumerator Values. In addition to the name change, Genesys has added new predefined Business Attributes.

During migration from a release prior to 7.0.1, and for each predefined Business Attribute being installed with the 8.1 release, if there already exists a user-defined Business Attribute with the same name, the system renames the existing Business Attribute and adds the new predefined Business Attribute in its place. With multi-tenant databases, for each sub tenant, the system copies the predefined Business Attributes from the super tenant. If there arise name conflicts, the system renames the user-defined Business Attribute and adds the predefined one to its place.

Note: This resolution to name conflicts found during migration may affect applications that rely on the attributes of the user-defined objects.

Migrating From Configuration Database 8.1.1 and Later

Starting in release 8.1.2 of the Configuration Layer, new releases of Configuration Server 8.1 include extensions to the Configuration Database schema that contain new application types and enumerators. When you run the Configuration Conversion Wizard (CCW) to update your Configuration Database, the new types and enumerators are added to the database schema. However, you do not have to migrate your data - CCW does not prompt you for a new database and copy all of your configuration data to the new database. This greatly reduces the time required to complete the migration to the new release. CCW also updates the localization information stored, if required.

Installing the Configuration Layer

Note: Configuration Server 8.1 consumes no more memory than other 7.x or 8.0 versions. Allocate at least 1 GB of virtual memory to Configuration Server 8.1 and adjust RAM as needed after you monitor Configuration Server 8.1 operations.

To Set Up Components of the Configuration Layer

To set up the components of the 8.1 Configuration Layer that are required for the migration procedure, you must:

1. Install DB Server 8.1 and configure it to work with the existing database.
2. Install Configuration Server 8.1.

   Warning! Do not execute the database initialization scripts at this point.

3. Install Configuration Manager 8.1.

For installation and configuration instructions for the Configuration Layer components, refer to the *Framework 8.1 Deployment Guide.*

Installing the Configuration Conversion Wizard

Note: If you have installed Configuration Conversion Wizard (CCW) for any release prior to 8.1, uninstall it before installing CCW release 8.1.

To Install CCW:

1. Locate the installation package on the Management Framework 8.1 product DVD in the `configuration_layer/convers_wizard/windows` directory.
2. Locate and double-click `Setup.exe` to start installation.

3. Specify the program folder to which you want to add CCW. By default, it is added to the `Genesys Solutions/Framework` folder.
4. When the CCW icons appear, click `Finish` to complete the installation.

When the setup program is finished, Configuration Conversion Wizard is ready to start; however, to operate, CCW requires that you specify connection parameters.

Specifying the Database Connection

To connect to your existing Configuration Database, CCW requires information about that database and the DB Server through which the database is to be accessed. You provide this information in one of two ways:

- As configuration option values within the database connection configuration file named `convers.cfg`. See "Configuring the Local Configuration File" on page 77 for instructions.
- As values entered interactively during startup. See "Entering Connection Parameters Dynamically" on page 80 for instructions.

Configuring the Local Configuration File

To Create a File Listing Database Connection Parameters

1. Open the local configuration file (`convers.cfg`) in the directory where CCW is installed.
2. Within this file, specify the values for the configuration options described in "Configuration Options Description", below. For configuration option values, use information about DB Server 8.1, the existing Configuration Database, and the DBMS user account through which the database is currently accessed. (See "Sample Configuration File" on page 79 for an example of a database connection configuration file.)

   Warning! Do not use the `Tab` key for entries in the configuration file.

3. Save the configuration file.

Configuration Options Description

Specify values for the following options to provide the Configuration Conversion Wizard with information about the Configuration Database, and about the DB Server through which CCW must access this database.

Note: If you are changing the connection parameters after initial installation, you must save the configuration file and re-specify it in the `Connection to the Configuration Layer Database` screen of CCW.

host

Default Value: No default value
Valid Value: Any valid host name
Changes Take Effect: After configuration file is specified in CCW

Specifies the host name of the computer running the DB Server 8.1 through which the Configuration Database is to be accessed.

port

Default Value: No default value
Valid Value: Any valid TCP/IP port
Changes Take Effect: After configuration file is specified in CCW

Specifies the TCP/IP port that clients should use to connect to the DB Server 8.1 through which the Configuration Database is to be accessed.

dbengine

Default Value: No default value
Valid Values: `oracle`, `sybase`, `informix`, `mssql`, `db2`, `postgresql`
Changes Take Effect: After configuration file is specified in CCW

Specifies the type of DBMS that handles the Configuration Database.

dbname

Default Value: No default value
Valid Value: Any database name
Changes Take Effect: After configuration file is specified in CCW

Specifies the name of the Configuration Database to be accessed as specified in the DBMS that handles this database. A value for this option must be specified unless `dbengine=oracle`.

dbserver

Default Value: No default value
Valid Value: Any valid entry name
Changes Take Effect: After configuration file is specified in CCW

Specifies the name or alias identifying the DBMS that handles the Configuration Database.

dbtimeout

Default Value: No default value
Valid Value: Any positive integer
Changes Take Effect: After configuration file is specified in CCW

Specifies the maximum time, in seconds, before which CCW should cease attempting to make its initial connection to the Genesys Database Server.

dbrequest-timeout

Default Value: `30`
Valid Value: `1 · 3000`
Changes Take Effect: After configuration file is specified in CCW

Specifies the maximum time, in seconds, in which the database request should be completed. If the request does not complete in this time, the request is cancelled, the import procedure is aborted, and a corresponding message is displayed to the user.

username

Default Value: No default value
Valid Value: Any character string
Changes Take Effect: After configuration file is specified in CCW

Specifies the user name established in the DBMS to access the Configuration Database.

password

Default Value: No default value
Valid Value: Any character string
Changes Take Effect: After configuration file is specified in CCW

Specifies the password established in the DBMS to access the Configuration Database.

delete-in-size

Default Value: `200`
Valid Value: `1 · 32767`
Changes Take Effect: After configuration file is specified in CCW

Specified only when migrating from release 6.5; specifies the number of fields in an SQL query that uses the `IN` statement, such as:

```
DELETE... FROM ... WHERE ... IN (X1, ..., An)
```

where `n` = value of `delete-in-size`.

Use this option to limit the length of SQL queries that use the `IN` statement.

Sample Configuration File

```
host = db-host
port = 4040
dbengine = mssql
dbserver = server_name
dbname = config
username = DBMS_user
password = DBMS_user_password
```

Entering Connection Parameters Dynamically

If you do not configure a configuration file with the connection parameters, CCW prompts you to enter the parameters during startup.

To provide Configuration Conversion Wizard with information about the Configuration Database and about the DB Server through which CCW must access this database, the following parameters are required:

To Provide CCW with Parameters

1. The host name of the computer running the DB Server 8.1 that provides access to the Configuration Database.
2. The TCP/IP port that clients should use to connect to the DB Server 8.1 through which the Configuration Database is to be accessed.
3. The type of DBMS (engine) that handles the Configuration Database.
4. The name or alias identifying the DBMS that handles the Configuration Database.
5. The name of the Configuration Database to be accessed as specified in the DBMS that handles this database.
6. The user name established in the DBMS to access the Configuration Database.
7. The password established in the DBMS to access the Configuration Database.

Using Password-Encryption

Starting with release 7.0, CCW can encrypt the password you use for accessing the Configuration Database so that it does not explicitly appear in the CCW configuration file or log. This improves configuration data security.

To enable access password encryption, start CCW with the following command line:

```
ConversWizard.exe -p <config-file-name>.cfg <password value>
```

Where

`-p` The command-line parameter that forces an instance of CCW to start, encrypt the database password in the configuration file, and terminate.

`<config-file-name>.cfg` The name of the CCW configuration file (usually, `convers.cfg`) that describes parameters of the Configuration Database whose access password is being encrypted.

`password value` The password used for accessing the specified Configuration Database.

As a result of this command, CCW writes an encrypted password in the configuration file and exits.

Chapter

5 Migration of Configuration Database

This chapter describes the procedure for converting a Configuration Database to the latest release of 8.1.

It contains the following topics:

Note: This chapter provides information about migrating your Configuration Database to versions 8.1.3 or earlier. For information about migrating it to releases 8.5.0 and later, see the *Management Framework Migration Guide*, available on the Genesys Documentation website.

About Migration from Previous Releases

How you migrate your Configuration Database depends on the release of the Database from which you are migrating.

Migrating from Configuration Database 8.1.0 or earlier

If you are migrating from a release 8.1.0 or earlier Configuration Database, use Configuration Conversion Wizard (CCW) to convert a copy of the configuration data to the latest 8.1 format while the original configuration data stays intact. The procedure is designed to protect data from corruption, and to minimize Configuration Server downtime. As a result, the production database remains operational during the conversion procedure and after the conversion

is finished, and existing applications can connect to Configuration Server 8.1 and, thus, to the converted database. See "Migrating a Changed Database Structure" on page 74 for information on how the migration process deals with changes you may have made to your existing Configuration Database structure.

Warning! Configuration Server release 8.1.0 or earlier is switched to Read-only mode during the data conversion; this ensures that Configuration Server clients do not modify existing data while it is being converted. Configuration Server returns to normal operational mode after the conversion procedure is complete.

To switch Configuration Server to Read-only mode, you must supply login parameters of the Master Account or an account in the Super Administrators group. If you do not have the account information, ask the administrator for your Genesys Configuration Database for help. For more information about the Master Account, the Super Administrators group, and Read-only mode, see the *Framework 8.1 Deployment Guide* and *Framework 8.1 Configuration Manager Help*.

Already Migrated to Configuration Database 8.1.1

Starting in release 8.1.2 of the Configuration Layer, new releases of Configuration Server include extensions to the Configuration Database 8.1.1 schema that contain new application types and enumerators. If you have previously migrated to Configuration Database 8.1.1, and want to use the latest version of any Genesys products and features that depend on the new types or enumerators, you only need to use CCW to update the locale information stored in your database. You do not have to migrate your data, nor does CCW copy your data. This greatly reduces the time required to complete the migration to the new release. See "Updating Locale of 8.1.1 Configuration Database to Release 8.1.x" on page 91.

If you have previously migrated to Configuration Database 8.1.1 and do not need to use the new application types or enumerators, you do not need to migrate your database any further. You can launch Configuration Server against your database. You can always add the new types and enumerators later (see "Updating Locale of 8.1.1 Configuration Database to Release 8.1.x" on page 91).

Migrating from Single-tenant to Multi-tenant

If you want to convert your single-tenant Configuration Database to a multi-tenant Configuration Database, you must first update the database to the latest locale. See "Migrating a Configuration Database from Single-Tenant to Multi-Tenant" on page 93 for more information.

Cross-DBMS Migration

If you are converting from one DBMS to another at the same time as you are upgrading your Configuration Database, see "Cross-DBMS Migration" on page 95.

Migrating to Multi-Language

If you want to convert your Configuration Database, supporting only one language, to one that supports multiple languages using UTF-8 encoding, you

must first update the database to the latest locale. See "Multi-Language Configuration Databases" on page 96 for more information.

Note: If you are using CCW with a database that is in UTF-8 format already and with which Configuration Server is currently running, you must set the `allow-mixed-encoding` option to `true` in Configuration Server. This ensures that older clients will be able to connect to Configuration Server.

The Migration Process

To upgrade the existing database, first set up the migration environment as described in Chapter 4 on page 73. Then proceed with the database conversion as described in the following section.

Notes:
- Support of the PostgreSQL DBMS is new in release 8.0, so migration of a PostgreSQL database from a release prior to 8.0 is not supported.
- The conversion procedure for Configuration Database 5.1 is similar to the current procedure for Configuration Database. Note, however, that the Configuration Conversion Wizard (CCW) does not convert 5.1 data from DB2 databases.
- You must upgrade the Configuration Database if you are upgrading from release 8.0 or earlier. However, if you are upgrading from 8.1.0 to 8.1.1, you must also convert the Configuration Database to the 8.1.1 schema, using CCW.

Migrating Configuration Database 8.1.0 or earlier

If you are migrating from a Configuration Database 8.1.0 or earlier, follow the procedures described in this section to migrate your data.

Notes: If you are already using a release 8.1.1 Configuration Database, migration of the database is not required. See "Updating Locale of 8.1.1 Configuration Database to Release 8.1.x" on page 91 for more information.

Starting Applications for Conversion

To begin upgrading configuration data structures to the latest 8.1 format, start DB Server 8.1 (refer to the *Framework 8.1 Deployment Guide*).Then start CCW.

To Start CCW

1. Make sure that you have the database connection parameters (see "Specifying the Database Connection" on page 77).
2. From the Windows' `Start` menu > `Programs` menu, run Configuration Conversion Wizard (CCW).
3. Read the CCW `Welcome` page and make sure that the listed preliminary requirements are met.
4. Provide the database connection parameters, by doing one of the following:
   - Select `Use configuration file` and provide the name and location of the configuration file (see "Configuring the Local Configuration File" on page 77).
   - Select `Manually enter parameters` and enter the parameters as requested on the subsequent wizard pages (see "Entering Connection Parameters Dynamically" on page 80).

When CCW connects to the database with the specified parameters, it:

- Identifies the version of the database to which it has connected.
- Checks the content of configuration data in the database.
- Gathers some statistical information about the database.
- Verifies whether Configuration Server runs against the database. If so, CCW prompts the user for Configuration Server connection parameters and sets Configuration Server to Read-only mode.

  For instructions on what values to specify for Configuration Server connection parameters, see Appendix A, "Login Procedure," on page 1821.

  Use the user name and password of the Master Account or of an account that is a member of the Super Administrator group; no other accounts have permissions to switch Configuration Server to Read-only mode.

Converting Configuration Database

Use the following procedure to migrate your 8.1.0 or earlier Configuration Database 8.1.0.

Procedure:
Converting an 8.1.0 or Earlier Configuration Database

Purpose: To migrate a release 8.1.0 or earlier Configuration Database to the current Configuration Database schema.

Start of procedure

1. From the list of possible procedures that CCW displays, select `Upgrade Configuration Database`.
2. When CCW prompts you to specify a new database that is to be used for the conversion procedure:
   a. Go to the database management system (DBMS) that handles your existing Configuration Database and do one of the following:
      - For all DBMS types except Oracle, create a new database, which will be used as the database copy for conversion.

      Note: The existing and new databases must be located within the same DBMS. Use the same user account to access both databases.

      If you are using Sybase, see also "Recommendations for Sybase Users" on page 89.

      - For the Oracle DBMS, create a new user.

   b. Using DBMS tools, copy the existing Configuration Database into the newly created database.

      Note: If you are using MS SQL, Genesys recommends that you use the DBMS backup and restore procedures for copying the database.

   c. Return to the CCW window.
3. Specify the name of the newly created database (for all DBMS types except Oracle) or the new user name and password (for the Oracle DBMS).
4. Click `Next` to start the data conversion.

   The conversion process might take some time, depending on the database size. A progress bar appears during conversion, indicating the progress of the conversion process.

   For example, conversion of a Configuration Database that contains around 200,000 configuration objects takes approximately 15 minutes if you use a computer running Windows 2000 with 1.5 GHz and 1 GB RAM.

If CCW detects that data in a particular table within your database does not comply with the latest 8.1 integrity rules, a warning is displayed. If this warning appears, exit CCW, resolve the data inconsistency as described on page 90, and restart the conversion process.

5. When CCW prompts you for which localization script to execute:
   - To load the English localization data from the Wizard's internal source, select `Load default English localization data`.
   - To load localization data from an external source, select `Load specific localization script which I will point out`. Then browse for the script that loads the CfgLocale table into the converted database. A script for your database type is located in the `sql_scripts` folder within the directory where Configuration Server 8.1 is installed.

   Table 1 provides a list of database types and their corresponding localization script names for an enterprise or multi-tenant environment.

Table 1: CfgLocale Scripts

Database Type	Script Name
DB2	CfgLocale_db2.sql
Informix	CfgLocale_ifx.sql
Microsoft SQL	CfgLocale_mssql.sql
Oracle	CfgLocale_ora.sql
PostgreSQL	CfgLocale_postgre.sql
Sybase	CfgLocale_syb.sql

Note: Support of the PostgreSQL DBMS was new in release 8.0, so migration of a PostgreSQL database from a release prior to 8.0 is not supported.

After executing the script, CCW checks the existing Switching Office objects to find out if any are of these types:

- WorldCom 800 Gateway
- AT&T 800 ICP Gateway
- Concert 800 Gateway

This verification occurs because in the latest 8.1 Configuration Database, a clear distinction is made among different switches of the general WorldCom 800 type. If you use AT&T 800 ICP Gateway or Concert 800 Gateway switches in your environment, you must update the corresponding Switching Office objects to reflect the actual type so that T-Servers for these switches can operate.

If the database contains one or more Switching Office objects of one of the three types, CCW displays the list of these Switching Office objects and suggests that you specify one of the three types for each Switching Office in the list:

- WorldCom 800 Gateway (the default choice)
- AT&T 800 ICP Gateway
- Concert 800 Gateway

6. For each existing Switching Office, select the type that matches your environment.
7. When a message appears indicating that the database upgrade is complete:
   a. Click `Statistics` to review a report on how many objects in each database table have been removed, added, or converted.
   b. Click `Finish` to exit CCW.

End of procedure

CCW stores information about the conversion in a log file created in the `Log` folder within the directory in which CCW is installed.

At shutdown, CCW sets the earlier Configuration Server back to the normal operational mode.

Recommendations for Sybase Users

To migrate the Configuration Database that resides in the Sybase DBMS, the option `select into` must be set to `true` for the new database (the copy that is being converted). You can do this within the `isql` shell using the following command sequence:

```
master..sp_dboption <your_db_name>, 'select into', true
go
use <your_db_name>
checkpoint
go
```

Starting the 8.1 Environment

The conversion procedure places the converted data in the newly created database. Use this database as your 8.1 Configuration Database.

To Start the New 8.1 Environment

After you exit the Configuration Conversion Wizard:

1. If you upgraded from Configuration Database 8.1.0 or earlier, ensure that a configuration file for Configuration Server 8.1 exists in the directory where Configuration Server 8.1 is installed. This file provides the Configuration Server with the configuration information about:
   - The Configuration Database that has been created as a result of the conversion procedure.
   - The user account through which the database can be accessed.

- DB Server 8.1.

2. In the configuration file for Configuration Server 8.1, set the following options:
   - `host` and `port` equal to the values specified in the configuration file for the release 8.0 or earlier Configuration Server.
   - `dbname` equal to the name of the DB Server 8.1 `Application` object.

   Save the file.

Note: Starting in release 7.5, the `port` option in the configuration file is used only during the first start of Configuration Server with an initialized database. After Configuration Server has started, the value of this option is written to the Configuration Database and associated with the Configuration Server `Application` object. Then, upon subsequent restarts, Configuration Server reads the port information from its `Application` object in the Configuration Database and ignores the setting of the port option in the configuration file.

Since the migrated Configuration Database already contains a Configuration Server `Application` object, Configuration Server uses the port specified in the database and not the port specified in its configuration file.

This step ensures that port information is synchronized between the Configuration Server configuration file and the Configuration Database.

3. Stop the Configuration Server running the earlier release.
4. Start Configuration Server 8.1.
5. Start Genesys Administrator or Configuration Manager 8.1. Then, in the `Login` window, specify the connection parameters of Configuration Server 8.1 (see Appendix A, "Login Procedure," on page 1821).
6. Check the Configuration Server 8.1 log to verify that Configuration Server is running correctly.

Resolving Data Inconsistency

During conversion, CCW might encounter instances of configuration that do not comply with the latest 8.1 rules. In this case, a warning displays requesting that you resolve the data inconsistency in a particular database table. If the warning appears:

To Resolve Data Inconsistency

1. Click `OK` to close the warning window and click `Finish` to exit CCW.
2. Check the CCW log file to identify the names of `Application` objects whose data do not comply with the latest 8.1 rules.

3. Make a backup copy of the existing database before you make any changes to the objects that CCW reported as inconsistent. This way, you can always restore your original database.
4. Start Configuration Manager and specify parameters of the Configuration Server that runs against the existing database at the Login Window (see Appendix A, "Login Procedure," on page 1821).
5. Decide which server(s) you want to leave as primary server(s) and which as backup server(s) so that:
   - All primary and backup servers are primary-backup pairs. That is, no backup servers are configured for a server that is configured to be a backup server itself.
   - All primary and backup servers have one-direction references. That is, no backup server has a reference to its primary server in the `Backup Server` field.
6. For those Application objects that you decided to leave as backup servers, set the `Backup Server` parameter to `none`.

After you resolve all instances of data inconsistency in your Configuration Database:

- Exit Configuration Manager.
- Restart the conversion process, beginning with "To Start CCW" on page 86.

Updating Locale of 8.1.1 Configuration Database to Release 8.1.x

If you have previously migrated to Configuration Database 8.1.1, you do not need to migrate your database to release 8.1.x. If you do not want to use the latest versions of any Genesys products and features that depend on new types or enumerators introduced by the new version of Configuration Server, you do not have to migrate or update anything - Configuration Server will work with your database as is.

However, if you want to use the latest versions of any Genesys products and features that depend on new types or enumerators introduced by a version of Configuration Server, you must update the locale information stored in the database, Use the procedure "Updating the locale of an 8.1.1 Configuration Database" on page 92. You do not have to migrate your data, nor does CCW copy your data. This greatly reduces the time required to prepare your database for use with the new release. In addition, you do not have to restrict access to your existing database during the locale upgrade.

Notes: There is no requirement to install the latest Configuration Server in your environment, just update the locale. The current Configuration Server will work with the updated database and the new definitions.

However, Genesys strongly recommends that you install the latest Configuration Server available to obtain all recent defect fixes.

Procedure: Updating the locale of an 8.1.1 Configuration Database

Purpose: To update the locale of an 8.1.1 Configuration Database to enable the use of new Genesys products and features depending on the new application types and enumerators included in a specific version of Configuration Server release 8.1.2 or later.

Warning! Carefully select the location of the localization scripts that you are loading using CCW. Selecting the incorrect localization script can damage the database.

In addition, Genesys strongly recommends that you make a backup of your current database using DBMS tools before you start the update.

Start of procedure

1. Determine the version of Configuration Server 8.1.x that contains the required definitions. Use documentation provided with new products that require the new types and enumerators.
2. Launch Configuration Conversion Wizard (CCW).

   Note: Make sure that you are using the latest available version of CCW to ensure that you can update the locale without being required to make a copy of your database.

3. From the list of possible procedures that CCW displays, select `Upgrade Configuration Database`.
4. When CCW prompts you to re-load the localization script, select `Yes`.
5. When CCW prompts you for which localization script to execute, do one of the following:
   - To load the English localization data from the Wizard's internal source, select `Default localization data (from internal source)`.
   - To load localization data from an external source, select `Load specific localization script`.

6. Select the CfgLocale script in the installation package for the Configuration Server version identified in Step 1, or in the `sql_scripts` folder within the directory if that (or later) version of Configuration Server 8.1.x is installed.

   Table 2 on page 93 provides a list of database types and their corresponding localization script names for an enterprise or multi-tenant environment.

Table 2: CfgLocale Scripts

Database Type	Script Name
DB2	CfgLocale_db2.sql
Informix	CfgLocale_ifx.sql
Microsoft SQL	CfgLocale_mssql.sql
Oracle	CfgLocale_ora.sql
PostgreSQL	CfgLocale_postgre.sql
Sybase	CfgLocale_syb.sql

   CCW loads the new locale into the database.

7. When a message appears indicating that the database upgrade is complete:
   a. Click `Statistics` to review a report on how many objects in each database table have been added or modified.
   b. Click `Finish` to exit CCW.
8. Restart Configuration Server and its backup, if configured.

End of procedure

Migrating a Configuration Database from Single-Tenant to Multi-Tenant

Note: If you are using CCW with a database that is in UTF-8 format already and with which Configuration Server is currently running, you must set the `allow-mixed-encoding` option to `true` in Configuration Server. This ensures that older clients will be able to connect to Configuration Server.

Starting in release 8.1.3, you can use CCW to convert a single-tenant configuration database to a hierarchical multi-tenant configuration database. In

effect, your data object model becomes a multi-tenant object model with only one root (`Environment`) tenant—yours.

After the conversion, you might notice a few changes to your database, such as:

- All folders previously located in the `Resources` Tenant are now in the `Environment` Tenant.
- There is no longer a Tenant called `Resources`; it has been removed.

Note: If you are using CCW to convert a single-tenant database that is already in UTF-8 format and with which Configuration Server is already running, to a multi-tenant database, you must set the `allow-mixed-encoding` option to true in Configuration Server.

Procedure: Migrating a single-tenant Configuration Database to a multi-tenant Configuration Database

Purpose: To convert a Configuration Database from a single-tenant to multi-tenant, using CCW. You can perform this procedure at any time so long as the necessary prerequisites are met, but Genesys recommends that you perform this procedure when migrating to a new release or locale.

Warning! You must perform this procedure on an exact copy of the single-tenant Configuration Database. CCW compares the copy to the original database, and will not perform the conversion if they are not identical.

Prerequisites

- The single-tenant database must be in the current (release 8.1.1 or later) schema.
- Permissions to the `Environment` tenant have been changed to allow full access for Administrators.
- An exact copy of the single-tenant database exists. It is this copy that will be converted to the multi-tenant structure. CCW does the conversion only if the two databases are identical.
- If the single-tenant database is already migrated to UTF-8 format, and is running with Configuration Server, the `allow-mixed-encoding` option is set to `true` in Configuration Server.

Start of procedure

1. Launch Configuration Conversion Wizard (CCW).

   Note: Make sure that you are using the latest available version of CCW.

2. From the list of possible procedures that CCW displays, select `Maintenance`, and click `Next`.

   Note: If the `Maintenance` option is disabled, the database is not in the current schema. See "Migrating Configuration Database 8.1.0 or earlier" on page 85 to update the schema of your database, then retry this procedure.

3. From the list of maintenance activities, select `Migrate database to multi-tenant mode`, and click `Next`.
4. If you have not yet created an exact copy of the database to be converted, do so now.
5. Enter the name of the copy of the database to be converted, and click `Next`.

   CCW will connect to that database, and compare it to the original. If they are identical, CCW will perform the conversion, ending with a final notification that the migration is complete.

   If they are not identical, CCW will not perform the conversion, and display a warning. The two databases must be identical before CCW will proceed with the conversion.

End of procedure

Cross-DBMS Migration

Genesys does not provide a tool for migration of a Configuration Database in one DBMS to another DBMS. This section provides a general workaround that will enable you to perform the cross-DBMS migration.

1. Upgrade the original (earlier) Configuration Database to the latest 8.1 in the same DBMS.
2. Use CCW to export the upgraded Configuration Database. The output SQL statements will be written in the syntax of the source DBMS.
3. If the SQL syntax of the source DBMS is different from that of the target DBMS, manually convert the exported SQL statements into the syntax necessary for the new DBMS.
4. Initialize the newly created Configuration Database in the target DBMS by running the initialization script only. For example, if the target DBMS is

Oracle and the database is for a single-tenant configuration, use the file `init_single_ora.sql`. Do not run the file `CfgLocale_ora.sql`.

Warning! There will be some duplicate statements in the initialization file, at least for `default` and `confserv` applications and for some ACEs. These duplicate statements should be removed from the initialization file, or the corresponding entries updated manually using Genesys Administrator or Configuration Manager after running the export file.

5. Execute the transformed export file using the target DBMS. Do not use CCW for this purpose.

Multi-Language Configuration Databases

In release 8.1.2 and earlier, a new multi-language configuration database could only be created manually in the appropriate Database Management System (DBMS). There was no automated way to migrate an existing database into one that supported data in multiple languages simultaneously. If you wanted to use multi-language functionality in those Genesys components that supported it, you had to contact Genesys Professional Services.

Starting in release 8.1.3, you can use CCW to convert an existing Configuration Database using a single type of character encoding, to a multi-language database using UTF-8 encoding. Use the procedure "Migrating a Configuration Database to a multi-language database using UTF-8 encoding" on page 96.

Procedure: Migrating a Configuration Database to a multi-language database using UTF-8 encoding

Purpose: To convert a Configuration Database to a multi-language database using UTF-8 encoding. You can perform this procedure at any time if the necessary prerequisites are met, but Genesys recommends that you perform this procedure when migrating to a new release.

Warning! Perform this procedure on an exact copy of the original Configuration Database. If unforeseen problems occur, you can then go back to the original database without any loss of data.

Prerequisites

- The original database must be in the current (release 8.1.1 or later) schema.

- Permissions to the `Environment` tenant have been changed to allow full access for Administrators.
- A new blank database in which the encoded data will be stored has been created and initialized with a multi-language locale. Refer to the *Framework Deployment Guide* for instructions about creating and initializing a multi-language database.

Start of procedure

1. Launch Configuration Conversion Wizard (CCW).

   Note: Make sure that you are using the latest available version of CCW.

2. From the list of possible procedures that CCW displays, select `Maintenance`.

   Note: If the `Maintenance` option is disabled, the database is not in the current schema. See "Migrating Configuration Database 8.1.0 or earlier" on page 85 to update the schema of your database, then retry this procedure.

3. From the list of maintenance activities, select `Migrate database to UTF-8 mode`.
4. When prompted, select the character encoding used by the original database, and enter the parameters of the new database and the DB Server as requested.

   After performing some checks, CCW will start the migration. This may take a while, depending on the size of your Configuration Database.
5. When the migration is completed, do one of the following:
   - Press `Next` to view migration statistics, a list of tables that are in the database and the number of rows in each that were migrated.
   - Press `Back` to return to the list of maintenance activities.

End of procedure

Chapter

6 Update of Configuration Database Locale

This chapter describes the conversion for updating the locale (schema) of a Configuration Database, version 8.1.1 or later, to the latest locale.

It contains the following topics:

Note: This chapter provides information about updating your Configuration Database Locale to versions 8.1.3 or earlier. For information about migrating it to releases 8.5.0 and later, see the *Management Framework Migration Guide*, available on the Genesys Documentation website.

Overview

If you are currently using Configuration Database 8.1.1 or later, you do not need to migrate your database to a newer version. If you do not want to use the latest versions of any Genesys products and features that depend on new types or enumerators introduced by the new version of Configuration Server, you do not have to migrate or update anything—Configuration Server will work with your database as is.

See Table 1 “CfgLocale Scripts” on page 88 to determine if you need to update the locale of your database. If you are not going to use those new features, or are satisfied with the given workarounds, you do not have to migrate your Configuration Database; Configuration Server 8.5 will work fine with your current Configuration Database.

However, if you want to use the latest versions of any Genesys products and features that depend on new types or enumerators introduced by a version of Configuration Server, you must update the locale information stored in the database. You do not have to migrate your data, nor does CCW copy your data. This greatly reduces the time required to prepare your database for use with the new release. In addition, you do not have to restrict access to your existing database during the locale upgrade.

Warning! You can upgrade only the latest available locale of your current release. That is, you cannot load the 8.5 locale into an 8.1 database. You must first upgrade your database to 8.5, and then load the 8.5 locale.

Notes: There is no requirement to install the latest Configuration Server 8.5 in your environment, just update the locale. The current Configuration Server 8.5 will work with the updated database and the new definitions.

However, Genesys strongly recommends that you install the latest Configuration Server available to obtain all recent defect fixes.

Updating the Locale

Use the following procedure to update the locale of your Configuration Database without affecting the data.

Procedure: Updating locale of Configuration Database

Purpose: To update the locale of a Configuration Database to enable the use of new Genesys products and features that depend on new application types and enumerators included in the current version of Configuration Server.

Warnings!
- Carefully select the location of the localization scripts that you are loading using CCW. Selecting the incorrect localization script can damage the database.
- Genesys strongly recommends that you make a backup of your current database using DBMS tools before you start the update.
- You can upgrade only the latest available locale of your current release. That is, you cannot load the 8.5 locale into an 8.1 database. You must first upgrade your database to 8.5, and then load the 8.5 locale.

Prerequisites

- Your Configuration Database must be in release 8.1.1 or later schema.
- You must be using the version of CCW that matches the version of the database being updated.

Start of procedure

1. Determine the version of Configuration Server that contains the required definitions. Use documentation provided with new products that require the new types and enumerators.
2. Launch Configuration Conversion Wizard (CCW).

   Note: Make sure that you are using the latest available version of CCW to ensure that you can update the locale without being required to make a copy of your database.

3. From the list of possible procedures that CCW displays, select `Upgrade Configuration Database`.
4. When CCW prompts you to re-load the localization script, select `Yes`.
5. When CCW prompts you for which localization script to execute, do one of the following:
   - To load the English localization data from the Wizard's internal source, select `Default localization data (from internal source)`.
   - To load localization data from an external source, select `Load specific localization script`.
6. Select the CfgLocale script in the installation package for the Configuration Server version identified in Step 1, or in the `sql_scripts` folder within the directory if that (or later) version of Configuration Server is installed.

   Table 3 provides a list of database types and their corresponding localization script names for an enterprise or multi-tenant environment.

Table 3: CfgLocale Scripts

Database Type	Script Name
DB2	CfgLocale_db2.sql
Microsoft SQL	CfgLocale_mssql.sql
Oracle	CfgLocale_ora.sql
PostgreSQL	CfgLocale_postgre.sql

Note: Updating the locale of an Informix or Sybase database is not supported in release 8.5.

CCW loads the new locale into the database.

7. When a message appears indicating that the database upgrade is complete:
   a. Click `Statistics` to review a report on how many objects in each database table have been added or modified.
   b. Click `Finish` to exit CCW.
8. Restart Configuration Server and its backup, if configured.

End of procedure

Next Steps

After you have updated the locale/schema of your Configuration Database, you might consider doing the following:

- Use CCW to convert a single-tenant database to a multi-tenant database. See page 93.
- Use CCW to convert a single-language database to a multi-language database. See page 96.

Chapter

7 Changes in Framework

This chapter describes major changes in Framework architecture and configuration option changes in each server component and discusses the following topics:

Note: This chapter contains information about changes in Framework up to version 8.1.3. For changes in releases 8.5.0 and later, see the *Management Framework Migration Guide*, available on the Genesys Documentation website.

Component Changes for Framework

Table 4 lists summaries of all high-level component differences for Framework from release 7.0 through 8.1, with the most recent changes listed first. For detailed information about all new features and functions available in Framework 8.1, refer to the *Framework 8.1 Deployment Guide.*

Note: Starting with release 7.2, Stat Server information is provided in the chapter "Stat Server Migration".

Table 4: Framework Component Changes Between Release 7.0 and 8.1

Current Component Name	Type of Change	Change Occurred in Release	Details
All Framework components	New functionality	8.1	Genesys Framework now supports IPv6 on most connections. Genesys Framework now supports the FlexLM 11.9 license manager. TLS as implemented by Genesys meets the Federal Information Processing Standards (FIPS). This applies to those components that support TLS.
All Framework components (cont.)	New functionality	8.1	The minimum permissions required to set up and operate Management Framework are now documented.
Configuration Database	New functionality	8.1	The Configuration Database can now store encrypted data using database encryption capabilities, but only if the Database Management System (DBMS) supports the encryption. (This refers to Transparent Data Encryption (TDE)). Migration is not required for Configuration Database 8.1.1; optional upgrade of locale information using CCW is all that is required. New multi-language environments are supported starting in release 8.1.2. Configuration Database and client databases must be configured appropriately when the database is first created.
Configuration Conversion Wizard	New functionality	8.1	You can use CCW to convert: • An existing Configuration Database from its current character encoding to a multi-language Configuration database encoded using UTF-8 • A single-tenant Configuration Database to a multi-tenant Configuration Database
External Authentication	New functionality	8.1	LDAP external authentication can now be configured on Configuration Server Proxy so authentication requests will be performed directly without forwarding them to the Master Configuration Server. Configuration Server Proxy now supports multiple LDAP servers.

Table 4: Framework Component Changes Between Release 7.0 and 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release	Details
External Authentication	Changed functionality	8.1	Only users with External IDs will be considered for external authentication. You can now configure Configuration Server to use LDAP external authentication by setting configuration options, instead of modifying the Configuration Server configuration file and the `ldapclient.conf` file. You now configure Configuration Server to use RADIUS external authentication by setting configuration options instead of modifying the Configuration Server configuration file.

Table 4: Framework Component Changes Between Release 7.0 and 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release	Details
Configuration Server	New functionality	8.1	With Oracle and MS SQL databases, users can configure a new mode of operation using stored procedures that will increase the performance of the system when processing update requests. Configuration Server now supports heartbeat detection functionality used by Local Control Agent (LCA) to detect unresponsive Genesys applications. A system administrator, or a user with equivalent access rights and permissions, can configure: • Additional attributes for user passwords, such as case, punctuation, character type, expiration, and reuse. • A user to be required to change his or her password at first login (if forced password reset is supported by the user interface). • Whether an account can be locked out after a specified number of unsuccessful login attempts. • Whether an account can be considered to be expired after a specified time of inactivity. The hash algorithm for the secure storage of passwords has been updated. If you are using Configuration Server Proxies running previous versions, you must set up Configuration Server to use the older version of the password hash until you upgrade all Configuration Server Proxies. When a user is editing an object that is linked to other objects, only a user with access to one or more of those linked objects can change the link between their linked objects and the object being edited. When configuring two applications as an HA pair, both applications must be started from the same account. Configuration Server now supports LDAP full referrals returned by Microsoft Active Directory. New multi-language startup mode that enables storage of data in UTF-8 format in most fields. A change of Wrap-up Time made at the Agent Login level now also appears in the configuration of the Agent. High capacity connections for SIP Server are now available on Linux systems.

Table 4: Framework Component Changes Between Release 7.0 and 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release	Details
Configuration Server	Enhanced support for Outbound Contact Solution	8.1	When configuring a Campaign Group, users can now select Average Distribution Time or Maximum Gain as an optimization method.Target Value for Maximum Gain is a calculated value based on Established Gain and Abandoned Loss.
Configuration Server	Enhanced support for Routing Solution	8.1	Support of Oracle's large objects (LOB) data type for Routing Strategies, making storage of Routing Strategies more efficient. Support of UTF-8 encoding for Business Attribute objects.
Configuration Server Proxy	New functionality	8.1	Users can now configure a writable Configuration Server Proxy to allow its clients to add, delete, or modify configuration objects and their permissions. Configuration Server Proxy now supports heartbeat detection functionality used by Local Control Agent (LCA) to detect unresponsive Genesys applications. Configuration Server Proxy now supports Client-Side Port Definition on all its connections. Client connections are now restored automatically by the backup Configuration Server Proxy after a switchover of the proxy servers.
Configuration Manager	New configuration object types	8.1	You can now configure the following new types of configuration objects in Configuration Manager: • Application types—Advisors Cisco Adapter, Advisors Genesys Adapter, Advisors Platform, Contact Center Advisor, Frontline Advisor, Business Rules Execution Server, Business Rules Application Server, CSTA Connector, Federation Server, Federation Stat Provider, Genesys Administrator Server, OT ICS OMP Infra, OT ICS Server, Social Messaging Server, UCM Connector, VP MRCP Proxy, VP Policy Server, Web Engagement Backend Server, Web Engagement Frontend Server, and Web RTC Gateway • Script types—Business Rules Data • Switch types—Aastra MX-ONE, Broadsoft BroadWorks

Table 4: Framework Component Changes Between Release 7.0 and 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release	Details
Local Control Agent (including Genesys Deployment Agent	New functionality	8.1	Applications on a Host now connect to the LCA on that Host using a loopback interface. This enables the connection to remain stable regardless of the status of the Network Interface Card. Local Control Agent can now monitor the state of NTP services. New logs report when an NTP service ceases to be available and when it becomes available. In addition, users can now change the signature of an NTP service/daemon. Local Control Agent and Genesys Deployment Agent now support TLS, including enabling you to secure specified ports using the TLS Protocol.
Log Database	New functionality	8.1	The Log Database can now store encrypted data using transparent database encryption as described for specified databases.
Solution Control Server	New functionality	8.1	Solution Control Server now supports heartbeat detection functionality used by Local Control Agent (LCA) to detect unresponsive Genesys applications.
Solution Control Server utilities	New functionality	8.1	You can now install the Solution Control Server utilities without installing Solution Control Server. Previously, the utilities were only installed automatically with Solution Control Server. The mlcmd.exe utility now uses names or DBIDs, and requires that the user provide credentials sufficient to access Configuration Server information to use the utility. In addition, parameters have been added that: • clear all active alarms • report CPU usage for each thread of a given process of a given application, and store the results in an XML file.
Message Server	New functionality	8.1	Error messages for authentication errors no longer contain a hint or direct indication of the reason that authentication failed. Message Server now supports Client-Side Port Definition and TLS on all its connections, and enables you to secure specified ports using the TLS Protocol.

Table 4: Framework Component Changes Between Release 7.0 and 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release	Details
Message Server	New functionality	8.1	If Message Server is unable to enter a log into the Log Database, a log event is generated, and can be used to trigger an alarm.
Logs and Alarms	New functionality	8.1	You can now enable and disable log filtering for individual applications. Alarm Detection and Alarm Condition scripts now use the name of the affected configuration object by default, instead of the database identifier (dbid). This ensures seamless XML import and export of Alarm Detection and Alarm Reaction script definitions. Host and Tenant attributes have been added to audit logs. New options enable sensitive data in logs to be marked for post-processing by the user, such as deletion, replacement, or hiding
Deployment Wizards	Removed functionality	8.1	You can no longer use Framework Deployment Wizards on the new versions of software introduced in release 8.1.
Configuration Database	Extended functionality	8.0	GVP objects are now stored in the Configuration Database. You can manage them using Genesys Administrator, or with Configuration Manager and Solution Control Interface.
DB Server	New functionality	8.0	DB Server can now detect database failures and try to reconnect. DB Server now supports the PostgreSQL Database Management System.
Configuration Server	Extended functionality	8.0	You can now configure hierarchical multi-tenant environments, where each Tenant is a parent Tenant, child Tenant, or both. Advanced Disconnect Detection Protocol is now supported between primary and backup Configuration Servers.

Table 4: Framework Component Changes Between Release 7.0 and 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release	Details
Configuration Server	New functionality	8.0	All Management Framework clients of Configuration Server now subscribe for only necessary notifications, improving system performance. You can now configure, at a Tenant level, a minimum length for all passwords used to gain access to applications within that Tenant. You can now configure a master Configuration Server running 8.x to ensure that Configuration Server Proxy running 7.6 or earlier reads configuration data correctly, even if using a different database schema. The History Log is now stored in the Configuration Database by all Configuration Servers (the HA pair), except Configuration Server Proxies.
Configuration Manager	New configuration objects and types	8.0	You can now configure the following new configuration objects in Configuration Manager: • Application types—Advisors, Capture Point, Customer View, ESS Extensible Services, iWD Manager, iWD Runtime Node, Interaction Workspace, Orchestration Server, Rules ESP Server, SMS Server • GVP Voice Platform Profiles • Script types—ESS Dial Plan, Interaction Workflow Trigger, Outbound Schedule • Switch types—Avaya TSAPI, Cisco UCCE, Huawei NGN You can now set the following new values for Business Attributes of type Media Type: • smssession • mms • mmssession
Configuration Manager	New functionality	8.0	By selecting an object in a Search results list, you can now directly open the folder containing that object, or view its list of dependent objects. You can set Configuration Manager to Emergency Mode, which provides read-only access to all Users except members of the Super Administrators access group. The on-line Help file now includes keyboard shortcuts

Table 4: Framework Component Changes Between Release 7.0 and 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release	Details
Configuration Manager	Changed functionality	8.0	You can now enter up to 4 KB of text when defining flexible option values of configuration objects. Disabled users can no longer log in to any Genesys Application.
Local Control Agent	New functionality	8.0	The Genesys Deployment Agent is now deployed with LCA. The Genesys Deployment Agent works with Genesys Administrator to deploy Genesys Applications and Solutions on the Host. Local Control Agent can now detect unresponsive Genesys applications for which you can configure appropriate actions, including alarms if required.
Solution Control Server	New functionality	8.0	In a Distributed Solution Control environment, any Solution Control Server can detect the failure of a remote site controlled by another Solution Control Server. You can now use the mlcmd.exe command line utility to stop and start Applications and Solutions; to retrieve the status of Applications, Solutions, and Hosts; and to create and send a custom log message.
Solution Control Interface	New functionality	8.0	You can now shut down an Application gracefully, if the Application supports Graceful Stop. Likewise, you can shut down a Solution gracefully, if the Applications that make up the Solution support Graceful Stop. After a user logs in, the date and time when anyone last logged in using that account is displayed. Platform status is now color-coded, to provide a quick visual reference as to the state of the system. A user can now be granted read-only access to the alarm interface, allowing them to monitor system status, including alarms, but prohibiting them from clearing alarms. The on-line Help file now includes keyboard shortcuts.
	Enhanced functionality	8.0	If you upgrade the Log Database to 8.0 or later, SCI now displays log records in descending order of generation with no effect on performance for large log databases. This upgrade is optional.
Logs and Alarms	Changed functionality	8.0	You can now specify a greater number of files (segments) before logs expire.

Table 4: Framework Component Changes Between Release 7.0 and 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release	Details
Wizard Manager	New functionality	8.0	Now supports the user inactivity timeout feature introduced in 7.6.
Configuration Import Wizard	New functionality	8.0	You can now enter configuration changes data in an XML file, and then use the new x2c.exe command line utility to apply those changes to the configuration data.
External Authentication	New functionality	8.0	New log events allow users to better monitor the connection between Configuration Server and the RADIUS or LDAP external authentication server. When logging in, you will receive messages from the RADIUS and LDAP servers indicating the success or failure of your login. You can now configure Configuration Server to accept an empty password if the external authentication server allows it. You can now configure RADIUS external authentication on Configuration Server Proxy.
Management Framework Deployment Manager	Removed functionality	8.0	Replaced by the Deployment Wizard in Genesys Administrator.
Configuration Server	New functionality	7.6	You can now improve system performance for large History Log updates.
	Changed functionality	7.6	By default, new users are no longer added automatically to a user group. To enable new users created in 7.6 or later to be assigned automatically to pre-defined Access Groups, you must manually disable this feature.
Configuration Manager	New functionality	7.6	During installation, you can configure the circumstances under which a Security Banner, which you can also design, to appear at login. You can now configure a time period after which users who have been inactive during that time will be forced to log in again.

Table 4: Framework Component Changes Between Release 7.0 and 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release	Details
Solution Control Interface	New functionality	7.6	During installation, you can configure the circumstances under which a Security Banner, which you can also deign, to appear at login. You can now configure a time period after which users who have been inactive during that time will be forced to log in again.
External Authentication	New functionality	7.6	You can now configure multiple LDAP external authentication servers.
Logs and Alarms	New functionality	7.6	You can now customize log events for an application by changing the log level of an event, or by disabling the event.
DB Server	New functionality	7.5	You can now configure multiple listening ports on those DB Server Application objects which are configured using a configuration file. You can now secure specified ports with Genesys Security using the TLS Protocol.
Configuration Server	New functionality	7.5	You can now configure multiple listening ports on Configuration Server. You can now secure specified ports with Genesys Security using the TLS Protocol. History log functionality is now mandatory. You can now configure Configuration Server to accept or reject a blank password.
Configuration Manager	New functionality	7.5	You can now configure all objects and parameters for Cost-based Routing in Configuration Manager. Campaign groups can be associated with multiple servers.
Genesys Security Pack on UNIX	New component	7.5	Enables Genesys Security using the TLS Protocol on UNIX platforms.
Message Server	New functionality	7.5	Message Server can now connect to DB Server or Configuration Server as a client using a secure connection. You can now control how many messages Message Server sends to DB Server without waiting for a response.

Table 4: Framework Component Changes Between Release 7.0 and 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release	Details
Solution Control Server (SCS)	New functionality	7.5	You can now configure multiple listening ports on a Solution Control Server. You can now secure specified ports with Genesys Security using the TLS Protocol. You can now distribute control over a primary and backup server in a redundant pair between different Distributed Solution Control Servers.
External authentication	New functionality	7.5	You can now configure multiple RADIUS external authentication servers.
Logs and alarms	New functionality	7.5	Log messages and alarms generated by the SCS are now processed without using the Message Server. You can now control the size of the Log Messages queue when the connection between Message Server and DB Server is unavailable. SCS and LCA logs now include a date and time stamp. An alarm is now visible only if you have access to the application that generated the alarm. Alarm reaction parameters now include the host name. The Alarm Reaction Wizard now enables you to customize the Subject line and content of e-mail alarm reactions.
Configuration Wizards	New functionality	7.5	You can now install configuration wizards from the appropriate product DVD, and run the wizards from a common Wizard Manager. The Common Wizard Component Set is no longer required. There is no longer any dependency between wizards of any application.
Configuration Import Wizard (CIW)	New functionality	7.5	CIW now contains utilities to support configuration data import from the Cisco CallManager switch.
Login	Removed functionality	7.5	Backup server information is removed from the login dialog for the Solution Control Interface module.
External Authentication	New functionality	7.2	In a Managed Services environment, different Tenants can now authenticate through different LDAP servers.

Table 4: Framework Component Changes Between Release 7.0 and 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release	Details
Configuration Manager	New functionality	7.2	Now you can associate a Supervisor with an Agent Group. Now you can specify automatic or manual reconnection. Search function now accepts the wildcard characters ? and * and can be case-insensitive.
Login	Removed functionality	7.2	Backup server information removed from login dialog for these modules: • Configuration Manager • Genesys Wizard Manager
Configuration Import Wizard	New functionality	7.1.1	CIW no longer requires a separately-purchased license, and can be run from the Configuration Manager Tools menu.
Login	New functionality	7.1.1	New Login dialog for these modules includes backup server information: • Configuration Manager • Genesys Wizard Manager • Solution Control Interface
Log Events	New functionality	7.1	You can control delivery of specified log events from specified applications and application types.
LDAP authentication	New functionality	7.1	Framework now supports external authentication for the Lightweight Directory Access Protocol (LDAP) servers: Novell E-Directory, IBM Tivoli Directory Server, Microsoft Active Directory.
Configuration Manager	New functionality	7.1	Users can view help for program errors directly from the menu bar.
Configuration Server	New functionality	7.1	Configuration Server supports Stat Server's new ability to collect Virtual Agent Group (VAG)-based data. Configuration Server also checks VAGs converted from earlier installations and displays a message if it finds errors.
Management Layer	New functionality	7.1	The Management Layer supports Genesys Enterprise Telephony Software (GETS) functionality.

Table 4: Framework Component Changes Between Release 7.0 and 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release	Details
Solution Control Interface	New functionality	7.1	SCI now connects to the Configuration Server backup, after a lost connection, without requesting login information.
SCI / SCS	New functionality	7.1	SCI/SCS in the Management Layer can now detect probable stuck calls and either clear them automatically or notify you to do it manually.
Solution Control Server	New functionality	7.1	SNMP Trap messages generated by Solution Control Server now include host information.
	New functionality	7.1	The Management Layer supports ADDP trace output for Local Control Agent and Solution Control Server—which used to appear only in `stdout`—now also appears in the log file.
Local Control Agent	New functionality	7.1	You can now name a non-default configuration file, in the command line, when you start Local Control Agent.
SNMP Master Agent	New functionality	7.1	SNMP Master Agent supports the “Clearance” alarm level for SNMP Traps
Licensing	New functionality	7.0.1	License control for redundant configurations is now enforced. You must have a special high-availability (HA) license to operate any Genesys server in a redundant configuration, whether with the redundancy type `warm standby` or `hot standby`.
Configuration Server	New functionality	7.0.1	Configuration Server now supports certain third-party authentication systems. You can integrate Genesys software with your established security system, which may provide functions that Genesys does not provide. Essentially, you can deploy your system to control user access to Genesys applications and avoid creating an additional security schema in your Genesys configuration environment.

Table 4: Framework Component Changes Between Release 7.0 and 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release	Details
Configuration Manager	Configuration object handling	7.0.1	You can perform the same configuration operation over multiple configuration objects in Configuration Manager simultaneously. The Enumerator and Enumerator Value configuration objects are now called Business Attribute and Attribute Value respectively. In addition, the Configuration Database provides an increased number of predefined objects of these types.
Configuration Import Wizard	New functionality	7.0.1	Support for new data sources is added to the Configuration Import Wizard, including: • Microsoft Excel documents. • NEC APEX 7400 switch configuration.
Solution Control Interface	New functionality	7.0.1	You can use new commands in SCI to start all or a set of configured solutions. SCI now supports ADDP (Advanced Disconnect Detection Protocol) for its connection to Solution Control Server (SCS) and prompts users to reconnect to the backup SCS once the connection to the primary SCS is lost.
Solution Control Server	Licensing	7.0.1	SCS now requires a special HA license to perform a switchover between primary and backup servers for all Genesys applications.
Configuration Server Proxy	Removed	7.0	Configuration Server 7.0, when running in Proxy mode, provides support for geographically distributed environments.
Management Framework Deployment Manager	Newly implemented	7.0	

Configuration Option Changes for Framework

This section documents all configuration option changes in specific Framework server components from release 7.0 through 8.1, with the most recent changes listed first. The changes are listed by component.

Where to find detailed descriptions of the configuration options

Refer to the *Framework Configuration Options Reference Manual* for detailed descriptions of all of the Framework configuration options, with the following exceptions:

- Configuration options for the Configuration Conversion Wizard are described in detail in "Configuration Options Description" on page 77.
- Configuration options introduced or changed in 8.1 are described in the *Framework 8.1 Deployment Guide*.
- Configuration options related to Genesys security features are described in detail in the latest version of the *Genesys Security Deployment Guide.*
- Configuration options related to external authentication are described in detail in the *Framework External Authentication Reference Manual*.

General Configuration Option Changes

Table 5 documents all changes in common configuration options (that is, those that are supported by all Genesys server applications), from release 7.0 through 8.1, with the most recent changes listed first.

All Genesys server applications support the unified set of log options (called *common log options*) in addition to application-specific log options. The common log options are configured for each application in the following sections: `log`, `log-extended`, `log-filter`, and `log-filter-data`.

Note: Leaving the default settings for the common log options might adversely affect performance in production mode.

Starting with release 7.6, all Genesys Server applications also support a set of common options for operations that are not related to logs.

Table 5: Common Option Changes

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
enable-async-dns	common	Changed values	8.1	New values 0, 1
cipher-list	security	New	8.1	

Table 5: Common Option Changes (Continued)

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
tls-crl	security	New	8.1	
tls-target-name-check	security	New	8.1	
account-override-lockout	security-authentication-rules	New	8.1	New section
last-expired-at	security-authentication-rules	New	8.1	Read-only New section
last-locked-at	security-authentication-rules	New	8.1	Read-only New section
no-change-password-at-first-login	security-authentication-rules	New	8.1	New section
override-account-expiration	security-authentication-rules	New	8.1	New section
heartbeat-period	sml	Changed values	8.1	
default-filter-type	log-filter	New value	8.1	New value: tag
filtering	log-filter	New	8.1	
<key-name>	log-filter-data	New value	8.1	New value: tag
dml-retry	dbserver	New	8.1	
enable-ipv6	common	New	8.1	
expire	log	New values	8.0	New range: 1–1000 files
default-filter-type	log-filter	New values	8.0	
<key-name>	log-filter-data	New values	8.0	
disable-rbac	security	New	8.0	New section
heartbeat-period	sml	New	8.0	

Table 5: Common Option Changes (Continued)

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
heartbeat-period-thread-class-<n>	sml	New	8.0	
hangup-restart	sml	New	8.0	
suspending-wait-timeout	sml	New	8.0	
alarm	log	Moved	7.6	Moved from Solution Control Server.
x-conn-debug-open	log	New	7.6	Use only when requested by Genesys Technical Support.
x-conn-debug-select	log	New	7.6	
x-conn-debug-timers	log	New	7.6	
x-conn-debug-write	log	New	7.6	
x-conn-debug-security	log	New	7.6	
x-conn-debug-api	log	New	7.6	
x-conn-debug-dns	log	New	7.6	
x-conn-debug-all	log	New	7.6	
rebind-delay	common	New	7.6	Use only when requested by Genesys Technical Support. New section
enable-async-dns	common	New	7.6	Use only when requested by Genesys Technical Support. Use only with T-Servers.
level-reassign-<eventID>	extended-log	New	7.6	New section
level-reassign-disable	extended-log	New	7.6	New section
address	Transport Parameters	New	7.6	

Table 5: Common Option Changes (Continued)

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
backup-port	Transport Parameters	New	7.6	
port	Transport Parameters	New	7.6	
default-filter-type	log-filter	New 7.2		New section
<key name>	log-filter-data	New 7.2		New section
keep-startup-file	log	New	7.1	This option applies only to T-Servers.
verbose	log	New values	7.0	New values: interaction, debug
buffering	log	See Details	7.0	Now applies to stderr and stdout output.
memory-storage-size	log	New	7.0	
message_format	log	New default value	7.0	New default value: short
time_format	log	New value; new default value	7.0	New value (which is the new default): time
print-attributes	log	New	7.0	
check-point	log	New	7.0	
memory	log	New	7.0	
spool	log	New	7.0	
all	log	New output level	7.0	New level: memory
standard	log	New output level	7.0	New level: memory
interaction	log	New	7.0	

Table 5: Common Option Changes (Continued)

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
trace	log	New output level	7.0	New level: memory
		See Details	7.0	Log events of higher levels are now also sent to the specified output.
debug	log	New output level	7.0	New level: memory
		See Details	7.0	Log events of higher levels are now also sent to the specified output.

DB Server

Table 6 lists all configuration option changes in DB Server from release 7.0 through 8.1, with the most recent changes listed first.

Table 6: Option Changes in DB Server

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
db-request-timeout	dbserver	New	8.0	
dbprocess_name	dbserver	New and corrected values	8.0	New value: dbclient_postgre Removed ./ from other values.
db2_name	dbserver	New and corrected values	8.0	New values: ./dbclient_db_32, ./dbclient_db2_64 Corrected value: ./dbclient_db2
informix_name	dbserver	Corrected value	8.0	Corrected value: ./dbclient_informix

Table 6: Option Changes in DB Server (Continued)

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
msql_name	dbserver	Corrected value	8.0	Corrected value: ./dbclient_msql
oracle_name	dbserver	New and corrected values	8.0	New values: ./dbclient_oracle_32, ./dbclient_oracle_64 Corrected value: ./dbclient_oracle
postgre_name	dbserver	New	8.0	
sybase_name	dbserver	Corrected value	8.0	Corrected value: ./dbclient_sybase
tls	Transport Parameter	New	7.5	
dbprocess_number	dbserver	Correction	7.1	The default value and valid values were incorrectly documented in the previous releases of the document.

Database Access Point

Table 7 lists all configuration option changes in Database Access Point from release 7.0 through 8.1, with the most recent changes listed first.

Table 7: Option Changes in Database Access Point

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
utf8-ucs2	dbclient	New	8.1	
db-request-timeout	dbserver	New	8.0	

Configuration Server

Table 8 on page 124 documents all configuration option changes in Configuration Server from release 7.0 through 8.1, with the most recent changes listed first. These options apply to Configuration Server operating in Master mode.

Table 9 on page 127 documents configuration option changes in Configuration Server 8.1 running in Proxy mode (also referred to as *Configuration Server Proxy*).

Table 8: Option Changes in Configuration Server

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
reconnect-timeout	Configuration Database	Added value	8.1	New value: `0`
allow-mixed-encoding	confserv	New	8.1	
enable-pre-812-security	confserv	New	8.1	
force-md5	confserv	New	8.1	
multi-languages	confserv	New	8.1	
password-change	confserv	New	8.1	
packet-size	confserv	New	8.1	
chase-referrals	gauth_ldap[_n]	New	8.1	
port	soap	Changed default value	8.1	New default value: `0`
all	history-log-section	Modified	8.0	Do not apply to Master Configuration Server.
failsafe-store-processing	history-log-section	Modified	8.0	Not documented in previous versions of this document.
protocol	confserv / <application>	New	8.0	
addp-timeout	confserv / <application>	New	8.0	Same name as existing options, but placed in different configuration section.
addp-remote-timeout	confserv / <application>	New	8.0	
addp-trace	confserv / <application>	New	8.0	
fix_cs_version_7x	confserv	New	8.0	

Table 8: Option Changes in Configuration Server (Continued)

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
allow-external-empty-password	confserv	New	8.0	
last-login	confserv	New	8.0	
last-login-synchronize	confserv	New	8.0	
objects-cache	confserv	New	8.0	
disable-vag-calculation	<application>	New	7.6	
all	history-log	New value	7.6	New value: `:memory:`
history-log-file-name	confserv	Obsolete	7.6	Replaced by options in history-log section.
history-log-expiration	confserv	Obsolete	7.6	
history-log-client-expiration	confserv	Obsolete	7.6	
history-log-max-records	confserv	Obsolete	7.6	
history-log-active	confserv	Obsolete	7.6	
no-default-access	security	New	7.6	
all	history-log	New	7.6	
expiration	history-log	New	7.6	
client-expiration	history-log	New	7.6	
max-records	history-log	New	7.6	
active	history-log	New	7.6	
failsafe-store-processing	history-log	New	7.6	
backlog	Application Parameter	New	7.6	Use only when requested by Genesys Technical Support.
history-log-save	confserv	Obsolete	7.5	
history-log-file-save	confserv	Obsolete	7.5	
history-log-keep	confserv	Obsolete	7.5	
history-log-scan	confserv	Obsolete	7.5	

Table 8: Option Changes in Configuration Server (Continued)

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
history-log-expiration	confserv	New	7.5	
history-log-client-expiration	confserv	New	7.5	
history-log-max-records	confserv	New	7.5	
history-log-active	confserv	New	7.5	
allow-empty-password	confserv	New	7.5	
transport	dbserver	New	7.5	
schema	hca	See Details	7.5	The hca section is not required for users of Genesys InfoMart 7.5 or later.
verbose	gauth_radius	New	7.5	The gauth-radius section is new in release 7.5. Not documented in previous versions.
tls	Transport Parameter	New	7.5	
force-reconnect-reload	confserv	New	7.2	
addp	dbserver	New	7.1	
addp-timeout	dbserver	New	7.1	
addp-trace	dbserver	New 7.1		
dbcheck	confserv	Obsolete	7.0	
encoding	confserv	New	7.0	
locale	confserv	New	7.0	
schema	hca	New	7.0	The hca section is new to release 7.0.
port	soap	New	7.0	The soap section is new to release 7.0.
debug	soap	New	7.0	

Table 8: Option Changes in Configuration Server (Continued)

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
client_lifespan	soap	New	7.0	

Table 9: Option Changes in Configuration Server Proxy

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
library	authentication	New	8.1	New section
enforce-external-auth	authentication	New	8.1	
allow-mixed-encoding	csproxy	New	8.1	
client-response-timeout	csproxy	New	8.1	
packet-size	csproxy	New	8.1	
ldap_url	gauth_ldap	New	8.1	New section
verbose	gauth_ldap	New	8.1	
retry_attempts	gauth_ldap	New	8.1	
retry_interval	gauth_ldap	New	8.1	
proxy-writable	csproxy	Scope expanded	8.0	Scope expanded to all clients, not just Genesys Agent Desktop.
last-login	csproxy	New	8.0	
last-login-synchronize	csproxy	New	8.0	
objects-cache	csproxy	New	8.0	
verbose	gauth_radius	New	7.5	New section Not documented in previous versions.
proxy-writable	csproxy	New	7.6	

Table 9: Option Changes in Configuration Server Proxy (Continued)

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
expiration	history-log	Modified when changes take effect.	7.6	Old Changes Take Effect: After restart New Changes Take Effect: Immediately
client-expiration	history-log		7.6	
max-records	history-log		7.6	
failsafe-store-processing	history-log	New	7.6	
all	history-log	New value	7.6	New value: :memory
backlog	See Details	New	7.6	Use only when requested by Genesys Technical Support. Defined in Application Parameters section on the Advanced tab of Port Properties in Configuration Manager.
verbose	history-log	Obsolete	7.5	
expire	history-log	Obsolete	7.5	
segment	history-log	Obsolete	7.5	
all	history-log	New default value	7.5	Old default value: trlog New default value: histlog
expiration	history-log	New	7.5	
client-expiration	history-log	New	7.5	
max-records	history-log	New	7.5	
active	history-log	New	7.5	
license-file	license	New	7.0	Unified licensing option. See *Genesys Licensing Guide* for description. New section
encoding	csproxy	New	7.0	New section
locale	csproxy	New	7.0	New section

Table 9: Option Changes in Configuration Server Proxy (Continued)

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
verbose	history-log	New	7.0	New section
all	history-log	New	7.0	
segment	history-log	New	7.0	
expire	history-log	New	7.0	
port	soap	New	7.0	New section
debug	soap	New	7.0	
client_lifespan	soap	New	7.0	

Configuration Manager

Table 10 documents all configuration option changes in Configuration Manager from release 7.0 through 8.1, with the most recent changes listed first.

Note: This table does not include configuration options for Genesys Administrator, which are set in the Configuration Manager `Application` object with which Genesys Administrator is bound, or associated, during its deployment.

Table 10: Option Changes in Configuration Manager

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
inactivity-timeout	security	New	7.6	

Local Control Agent

Starting with release 7.0, Local Control Agents supports common log options which allows you to precisely configure log output for LCA. Because you do not configure an `Application` object for LCA, if you need to change the default log option settings, create a configuration file called `lca.cfg` and specify new values for appropriate options. The file must be located in the same directory as the Local Control Agent executable file.

Table 11 documents all other configuration option changes in Local Control Agent from release 7.0 through 8.1, with the most recent changes listed first.

Table 11: Option Changes in Local Control Agent

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
lookup_clienthost	general	New	8.1	

For more information on the LCA configuration file and for related instructions, see the *Framework Deployment Guide.*

Genesys Deployment Agent

Starting with release 8.0, the Genesys Deployment Agent is deployed with LCA. The Genesys Deployment Agent is used by of Genesys Administrator to deploy Genesys Applications and Solutions on the Host. To enable this functionality, you must identify what port on the Host that the Genesys Deployment Agent will use to communicate with Genesys Administrator. You provide this information in the Host's `Annex`, in the new section `rdm`, specifying the port number with the configuration option `port`.

Genesys Deployment Agent supports common log options which allows you to precisely configure log output for Genesys Deployment Agent. Because you do not configure an `Application` object for Genesys Deployment Agent, if you need to change the default log option settings, create a configuration file called `gda.cfg` (or rename and modify the `gda.cfg.sample` file that is located in the installation folder) and specify new values for appropriate options. The file must be located in the same directory as the Genesys Deployment Agent executable file (`gda.exe`).

Table 12 on page 130 documents all other configuration option changes in Genesys Deployment Agent from release 8.0 through 8.1, with the most recent changes listed first.

Table 12: Option Changes in Genesys Deployment Agent

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
transport	security	New	8.1	New section
rootdir	web	New	8.0	New section Not previously documented

For more information about the Genesys Deployment Agent, refer to the *Framework Deployment Guide*.

Message Server

Table 13 documents all configuration option changes in Message Server from release 7.0 through 8.1, with the most recent changes listed first.

Table 13: Option Changes in Message Server

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
signature	MessageServer	New	8.0	
request-queue-size	messages	Removed	8.0	
log-queue-exp-time	messages	New	7.5	
log-queue-size	messages	New	7.5	
log-queue-response	messages	New	7.5	
block-messages	db-filter	New 7.1		
block-messages-from-<DBID>	db-filter	New 7.1		
block-messages-by-<type>	db-filter	New 7.1		
db_binding	messages	New	7.0	

Solution Control Server

Table 14 documents all configuration option changes in Solution Control Server from release 7.0 through 8.1, with the most recent changes listed first.

Table 14: Option Changes in Solution Control Server

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
ha_service_ unavail_primary	general	New	8.1	
lookup_clienthost	general	New	8.1	
max-req-per-loop	general	New	8.1	

Table 14: Option Changes in Solution Control Server (Continued)

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
alarms-port	Transport Parameter	New	8.1	
backup-alarms-port	Transport Parameter	New	8.1	
alarm	log	Moved	7.6	Moved to common configuration options.
smtp_from	general	See Details	7.1.1	Documented correctly in 7.2.
max_switchover_time	general	New	7.0	New section
distributed_mode	general	New	7.0	
distributed_rights	general	New	7.0	
alive_timeout	general	New	7.0	
alarm	log	New value	7.0	New value: memory

Solution Control Interface

Table 15 documents all configuration option changes in Solution Control Interface from release 7.0 through 8.0, with the most recent changes listed first.

Table 15: Option Changes in Solution Control Interface

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
critical-color	host-status-display	New	8.0	New section
major-color	host-status-display	New	8.0	New section
other-color	host-status-display	New	8.0	New section
inactivity-timeout	security	New	7.6	

Genesys SNMP Master Agent

Table 16 documents all configuration option changes in Genesys SNMP Master Agent from release 7.0 through 8.1, with the most recent changes listed first.

Table 16: Option Changes in SNMP Master Agent

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
password	snmp-v3-auth	New	8.1	New section
password	snmp-v3-priv	New	8.1	New section
v3priv_protocol	snmp	Removed value	8.0	Unsupported value: `IDEA`
mode	agentx	Removed value	7.1.1	Obsolete value: `UNIX`
unix_port	agentx	Obsolete	7.1.1	
trap_host	snmp	Obsolete	7.0	Replaced by trap_target.
trap_port	snmp	Obsolete	7.0	Replaced by trap_target.
trap_target	snmp	New	7.0	

Tenant

Table 17 on page 133 documents all Tenant-level configuration option changes from release 7.0 through 8.1, with the most recent changes listed first.

Table 17: Tenant-Level Option Changes

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
force-password-reset	security-authentication-rules	New	8.1	
max-account-sessions	security-authentication-rules	New	8.1	
password-expiration	security-authentication-rules	New	8.1	

Table 17: Tenant-Level Option Changes (Continued)

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
password-expiration-notify	security-authentication-rules	New	8.1	
password-no-repeats	security-authentication-rules	New	8.1	
password-req-punctuation	security-authentication-rules	New	8.1	
tenant-override-section	security-authentication-rules	New	8.1	
password-req-number	security-authentication-rules	New	8.0	Not documented in previous releases of this document.
password-req-mixed-case	security-authentication-rules	New	8.0	Not documented in previous releases of this document.
password-req-alpha	security-authentication-rules	New	8.0	Not documented in previous releases of this document.
account-lockout-threshold	security-authentication-rules	New	8.0	Not documented in previous releases of this document.
account-lockout-duration	security-authentication-rules	New	8.0	Not documented in previous releases of this document.
account-lockout-attempts-period	security-authentication-rules	New	8.0	Not documented in previous releases of this document.
password-min-length	security-authentication-rules	New	8.0	

Host

Table 18 documents all Host-level configuration option changes from release 7.0 through 8.1, with the most recent changes listed first.

Table 18: Host-Level Option Changes

Current Option Name	Configuration Section Name	Type of Change	Change Occurred in Release #	Additional Information
signature	ntp-service-control	New	8.1	New section
lca-upgrade	security	New	8.1	
upgrade	security	New	8.1	
ip-version	transport	New	8.1	New section
port	rdm	New	8.0	New section in 8.0. Not documented in previous releases of this document.
gda-tls	security	New	8.0	New section in 8.0. Not documented in previous releases of this document.
addp-remote-timeout	addp	New	7.6	New section in 7.6. Not documented in previous releases of this document.
addp-timeout	addp	New	7.6	Not documented in previous releases of this document.

Chapter

8 Upgrade of Framework Components

This chapter describes how to upgrade applications that belong to the Genesys Framework after you have successfully converted the configuration data. It discusses the following topics:

Note: This chapter provides information about migrating your Management Framework components up to version 8.1.3. For information about migrating themto releases 8.5.0 and later, see the *Framework Migration Guide*, available on the Genesys Documentation website.

To migrate Genesys Administrator, refer to the chapter "Migrating Genesys Administrator".

To migrate Stat Server, refer to the chapter "Stat Server Migration".

To migrate T-Servers, refer to the T-Server sections in this guide.

Upgrade Overview

After you have successfully converted the Configuration Database to 8.1 format, install Framework 8.1 components. The *Framework 8.1 Deployment Guide* provides recommendations for planning the Genesys Framework 8.1 installation. The *Framework 8.1 Deployment Guide* also describes the configuration, installation, and startup procedures.

During the configuration procedure, you can skip configuration of the entities present in the database as a result of the database conversion. Or you can modify the preexisting components to enable new options and functions. If you are using Configuration Wizards for component deployment, they will show these configuration entities as existing.

Notes: • Converting your database with the Configuration Conversion Wizard (CCW) does not register the Framework instance in the Configuration Database. When you are deploying Framework components or Genesys solutions with Configuration Wizards, you must first run the Framework Configuration Wizard, which identifies the Framework-related objects in the database and registers a Framework instance.

After completing the 8.1 installations of previously configured components, check or modify the configuration parameters to enable the new features and capabilities you would like to use. The *Framework 8.1 Deployment Guide* helps you to evaluate features introduced to Genesys Framework in the latest releases. The *Framework 8.1 Configuration Options Reference Manual* describes configuration options for Framework components and highlights newly introduced and retired options. The *Framework 8.1 Management Layer User's Guide* describes how to enable Management Layer functionality.

To take full advantage of the new features and functionality offered in a particular release, Genesys recommends all software components be of the same release whenever possible—particularly, the Configuration Layer and the Management Layer. These two layers function as a unit in many respects.

Migrating Framework Components to 8.1

Complete these preliminary procedures before upgrading your Framework components:

1. Install FLEXlm License Manager, version 11.9

   You should have the license files for 8.1 components.

   Licensing is addressed in:

   - *Genesys Licensing Guide*
   - Chapter 2, "Licensing Migration".

2. Migrate the Configuration Database if required. See "About Migration from Previous Releases" on page 83.

   Note: You must upgrade the Configuration Database if you are upgrading from release 8.1.0 or earlier. If you are upgrading from release 8.1.1, no migration is required–Configuration Server will work with your current database. However, if you want to use the new types and attributes in a later 8.1.x release of Configuration Server, you have to use CCW to upgrade the localization information stored in the database.

3. If you are using Configuration Server Proxies in a distributed environment, you must upgrade the Configuration Database, master Configuration Server, then upgrade all Configuration Server Proxies (in that order) *before* you proceed with the migration of other components. Keeping an old Configuration Server Proxy for a site where applications will remain at the old release is not recommended.

   To migrate your Configuration Server Proxies:

   a. Upgrade the master Configuration Server and launch it.

   b. Upgrade all the Configuration Server Proxies.

   To ensure uninterrupted operations, you can keep existing proxies running while upgrading the master server. This applies for all versions.

The following information summarizes the migration of Framework components from release 8.0 or earlier:

1. Install physical 8.1 applications for each converted `Application` object.
2. Modify the configuration of converted `Application` objects for server applications to enable or disable new functionality as required. This can include:
   - Configuration options newly introduced for this application. See "Configuration Option Changes for Framework" on page 118.
   - In distributed configuration environments, replacing connections to older Configuration Server Proxies with connections to updated Configuration Servers running in Proxy mode.
   - Enabling ADDP for any connections. This is optional.
   - Disabling the automatic assignment of new users to access groups. See "Disabling No Default Access for New Users" on page 140.

Note: Starting in release 7.5, Configuration Server does not support backward compatibility of Keep-Alive Protocol (KPL) for release 6.5 clients. If you used KPL with previous Genesys versions, consider using Automatic Disconnect Detection Protocol (ADDP). Refer to the *Framework 8.1 Deployment Guide* for information about ADDP.

3. Update Contact Center configuration objects as needed:
   - `Alarm Conditions`
   - `Alarm Reactions`

Migration Procedures

Follow these migration procedures for Framework components.

Upgrading Configuration Layer

Warnings! If you are using Configuration Server Proxies in a distributed environment, you must upgrade every Configuration Server Proxy before you upgrade any other Framework component. Refer to Step 3 on page 139 for instructions.

Notes:

- Skip this section if you have already upgraded the Configuration DB Server and Configuration Server as part of migrating the Configuration Database (see "Installing the Configuration Layer" on page 76).
- Configuration Server 8.1 consumes no more memory than other 7.x or 8.0 versions. Allocate at least 1 GB of virtual memory to Configuration Server 8.1 and adjust RAM as needed after you monitor Configuration Server 8.1 operations.

To Upgrade the Configuration Layer

To set up the components of the 8.1 Configuration Layer that are required for the migration procedure, you must:

1. Install DB Server 8.1 and configure it to work with the existing Configuration Database.
2. Install Configuration Server 8.1.

   Warning! Do not execute the database initialization scripts.

3. Install Configuration Manager 8.1.
4. In geographically distributed environments, install as many release 8.1 Configuration Server Proxies as required.

For installation and configuration instructions for Configuration Layer components, refer to the *Framework 8.1 Deployment Guide.*

Disabling No Default Access for New Users

Starting in release 7.6, new users are not automatically assigned to Access Groups, by default. Users created prior to release 7.6 retain their existing permissions and Access Groups assignments. If you want new users to be assigned automatically to pre-defined Access Groups, as was done in release 7.5 and earlier, you must disable this feature as follows:

1. Open the release 8.1 Configuration Server `Application` object `Properties` dialog box.
2. Select the `Options` tab.
3. If the `security` section does not exist, create it.

4. In the `security` section, set the `no-default-access` configuration option to one (`1`) and click `OK`. This will give new users the same default Access Group assignments and permissions as were given in release 7.5 or earlier.
5. Click `OK`.

Refer to the chapter "No Default Access for New Users" of the *Genesys 8.1 Security Deployment Guide* for more information about this feature and its configuration option.

Upgrading DB Server

Note: This section describes an upgrade of a DB Server for databases other than the Configuration Database.

To Upgrade DB Server

For each `DB Server Application` object whose data was converted from the earlier database:

1. In Configuration Manager, back up the existing configuration option settings in a `*.cfg` or `*.conf` file, using the `Export` button on the toolbar of the `Options` tab in the `Application Properties` dialog box. Save this `*.cfg` or `*.conf` file in a secure location in case of a rollback. Refer to *Framework 8.1 Configuration Manager Help* for a description of the Export function.
2. Install a physical DB Server 8.1 application. For installation instructions, refer to the *Framework 8.x DB Server User's Guide.*
3. Verify the following parameters on the `Start Info` tab of the DB Server Application object in Configuration Manager: the DB Server working directory, the executable name, and command-line parameters.
4. Specify any new configuration options on the `Options` tab of the DB Server Application object in Configuration Manager. See Table 6 on page 122 for details.
5. If you have not previously used the centralized-logging and alarm-signaling capabilities of Management Layer, but would like to do so now, add a connection to Message Server on the `Connections` tab of the DB Server Application object in Configuration Manager. Do this after you have configured Application objects for the Management Layer components.
6. If using the Configuration Server Proxy to notify this DB Server about configuration changes, use Genesys Administrator or Configuration Manager to add a connection to the Configuration Server Proxy.

To Roll Back

If you need to return to your earlier Genesys installation:

1. If any DB Server configuration options have been changed, restore the previously configured settings by importing the `*.cfg` or `*.conf` file in which you backed up DB Server release 8.0 or earlier configuration options. To do so, use the `Import` button on the toolbar of the `Options` tab in

the Application Properties dialog box in Configuration Manager. Refer to *Framework 8.1 Configuration Manager Help* for a description of the Import function.

2. Delete any new connections to server applications that you have configured for the DB Server Application object in Genesys Administrator or Configuration Manager.
3. Uninstall DB Server 8.1.

To Upgrade Database Access Points

For each Database Access Point Application object whose data was converted from the release 8.0 or earlier database, verify that this Database Access Point references the 8.1 database. For additional instructions, refer to the *Framework 8.x DB Server User's Guide.*

To Roll Back

If you need to return to your 8.0 release or earlier Genesys installation, verify that this Database Access Point references the release 8.0 or earlier database.

Upgrading Message Server

To Upgrade Message Server

For each Message Server Application object whose data was converted from the earlier database:

1. In Configuration Manager, back up the existing configuration option settings in a *.cfg or *.conf file using the Export button on the toolbar of the Options tab in the Application Properties dialog box. Save this *.cfg or *.conf file in a secure location in case of rollback. Refer to *Framework 8.1 Configuration Manager Help* for a description of the Export function.
2. Install a physical Message Server 8.1 application. For installation instructions, refer to the *Framework 8.1 Deployment Guide.*
3. Verify the following parameters on the Start Info tab of the Message Server Application object in Configuration Manager: the Message Server working directory, the executable name, and command-line parameters.
4. If you are using the Configuration Server Proxy to notify this Message Server about the configuration changes, add Configuration Server Proxy to the Connections tab of the Message Server Application object in Configuration Manager.

To Roll Back

If you need to return to your earlier Genesys installation:

1. If any Message Server configuration options have changed, restore the previously configured settings by importing the *.cfg or *.conf file in which you backed up the release 8.0 or earlier Message Server configuration options. To do so, use the Import button on the toolbar of the Options tab in the Application Properties dialog box in Configuration Manager. Refer to *Framework 8.1 Configuration Manager Help* for a description of the Import function.

2. Delete any new connections to server applications that you have configured on the `Connections` tab of the `Message Server Application` object in Configuration Manager.
3. Uninstall Message Server 8.1.

Upgrading the Log Database

If you are upgrading from a release earlier than 7.0, you must upgrade your Log Database after you install Message Server.

To Upgrade the Log Database from 7.0 or earlier

Using your DBMS tools, load the upgrade script appropriate to your DBMS type. The scripts are located in the `scripts` folder within the directory to which you installed Message Server. Table 19 lists database types and their corresponding upgrade script names for an enterprise or multi-tenant environment..

Table 19: Log Database Upgrade Scripts

Database Type	Script Name
DB2	upgrade_6X270_db2.sql
Informix	upgrade_6X270_informix.sql
Microsoft SQL	upgrade_6X270_mssql.sql
Oracle	upgrade_6X270_oracle.sql
Sybase	upgrade_6X270_sybase.sql

To upgrade the Log Database to 8.1

If you have upgraded your Message Servers to 8.1 or later, you should also upgrade your Log Databases, as follows:

Warning! Upgrading a large Log Database with a large number of records can take a significantly long time.

1. For each Message Server configured on the log database to be updated, set the configuration option `db_storage` to `false`.
2. If you are using the Sybase DBMS, switch on the `Select into/bulkcopy/pllsort` option.
3. Execute the script `upgrade_7Xto80_<DBMS type>.sql` for the type of DBMS that you are using.
4. After the upgrade script has completed running, set the configuration option `db_storage` to `true` for those Message Servers configured on the updated database, as necessary.

Upgrading Local Control Agent

Note: When you stop and uninstall Local Control Agent (LCA), SCS recognizes the loss of connection as a failure of the host. Thus, SCS would perform switchover for redundant pairs whose primary server is running on the host where LCA is down. If you want to avoid switching operations over to backup servers, either stop SCS before upgrading LCA or identify which applications are running as primary on the LCA's host and stop corresponding backup servers; restart either SCS or the backup servers respectively after the upgrade.

To Upgrade the Local Control Agent

For each host computer on which you were running LCA in your earlier environment:

1. Uninstall the release 8.0 or earlier LCA release.
2. Change the `LCA Port` property in the appropriate `Host Properties` window if necessary.
3. Install LCA release 8.1. For installation instructions, refer to the *Framework 8.1 Deployment Guide.*

Note: If you want to use the Management Layer, you must manually install LCA on every computer that runs Genesys servers. Install LCA from the Management Framework DVD using the instructions documented in the *Framework 8.1 Deployment Guide.*

To RollBack

If you need to return to your earlier Genesys installation, do not make any modifications to your LCA installation. LCA 8.1 is fully backward compatible and you can use it in an earlier environment.

Upgrading Solution Control Server

To Upgrade the Solution Control Server

For each `Solution Control Server Application` object whose data was converted from the earlier database:

1. In Configuration Manager, back up the existing configuration option settings in a `*.cfg` or `*.conf` file using the `Export` button on the toolbar of the `Options` tab in the `Application Properties` dialog box. Save this `*.cfg` or `*.conf` file in a secure location in case of rollback. Refer to *Framework 8.1 Configuration Manager Help* for a description of the Export function.
2. Install a physical Solution Control Server 8.1 application. For installation instructions, refer to the *Framework 8.1 Deployment Guide.*
3. Verify the following parameters on the `Start Info` tab of the `Solution Control Server Application` object in Configuration Manager: the Solution Control Server working directory, the executable name, and command-line parameters.

4. Specify any new configuration options on the Options tab of the Solution Control Server Application object in Configuration Manager. See Table 14 on page 131 for details.
5. If you have not previously used the centralized-logging and alarm-signaling capabilities of the Management Layer, but want to use them now, add a connection to Message Server on the Connections tab of the Solution Control Server Application object in Configuration Manager. Do this after you have configured an Application object for Message Server.
6. If using the SNMP Option to provide alarm reactions, verify that the SNMP Master Agent Application is added to the Connections tab of the Solution Control Server Application object in Configuration Manager. Do this after you have configured an Application object for SNMP Master Agent.
7. If using Configuration Server Proxy to notify this Solution Control Server about configuration changes, add Configuration Server Proxy to the Connections tab of the Solution Control Server Application object in Configuration Manager.

To Roll Back

If you need to return to your earlier Genesys installation:

1. If any SCS configuration options have been changed, restore previously configured settings by importing the *.cfg or *.conf file in which you exported release 8.0 or earlier Solution Control Server configuration options. To do so, use the Import button on the toolbar of the Options tab in the Application Properties dialog box in Configuration Manager. Refer to *Framework 8.1 Configuration Manager Help* for a description of the Import function.
2. Delete any new connections to server applications that you have configured on the Connections tab of the Solution Control Server Application object in Configuration Manager.
3. Uninstall Solution Control Server 8.1.

Upgrading Solution Control Interface

To Upgrade Solution Control Interface

For each Solution Control Interface Application object whose data was converted from the earlier database:

1. Install as many physical Solution Control Interface 8.0 applications as needed. For installation instructions, refer to the *Framework 8.1 Deployment Guide.*
2. Verify that a connection to the correct Solution Control Server is configured on the Connections tab of the Solution Control Interface Application object in Configuration Manager.
3. Verify that a connection to the correct Database Access Point is configured on the Connections tab of the Solution Control Interface Application object in Configuration Manager.

To Roll Back

If you need to return to your 7.6 release or earlier Genesys installation:

1. Restore any preexisting connections and delete any new connections to server applications that you have configured on the `Connections` tab of the `Solution Control Interface Application` object in Configuration Manager.
2. Uninstall Solution Control Interface 8.0.

Upgrading Stat Server

To Upgrade Stat Server

See the Stat Server chapter in this document.

Migrating Other Configuration Objects

To Migrate Other Configuration Objects

After you have migrated all Framework components, migrate or configure the following objects:

- `Alarm Conditions`
- `Alarm Reactions`

Review the recent changes to common log events and log events for each Framework component listed in *Framework 8.1 Combined Log Events Help.* Verify that your `Alarm Condition` and `Alarm Reaction` objects are based on currently supported log events. If necessary, make appropriate changes or configure new Alarm Conditions for newly-introduced log events.

Chapter

9 Migrating Genesys Administrator

This chapter contains procedures for migrating to the latest version of Genesys Administrator from an earlier version, and describes major changes in Genesys Administrator and configuration option changes.

This chapter contains the following topics:

Interoperability with Other Framework Components

Genesys Administrator is a web-based interface that combines the functionality of Configuration Manager and Solution Control Interface. It resides in the User Interaction Layer of the Genesys Framework.

Genesys Administrator 8.1 operates with these versions of the other Framework components:

- Configuration Server release 8.x
- Solution Control Server release 8.x

Preliminary Migration Procedures

Complete the procedures in this section before upgrading Genesys Administrator.

Operating System and Web Browser Upgrades

Before migration, you might need to upgrade the operating system and/or the web browser used by Genesys Administrator. Check the *Genesys Supported Operating Environment Reference Guide* to determine if you do need to upgrade your operating system or web browser.

Management Framework Upgrades

You must be running Management Framework 8.0 or later to support Genesys Administrator. If you want to use the Role-Based Access Control (RBAC) feature of Genesys Administrator, you must be running Genesys Administrator 8.0.2 or later. If you want to use the multi-language features in Management Framework, you must be running Management Framework 8.1.2 or later with Genesys Administrator 8.1.3 or later.

If you are currently running a release of Management Framework earlier than that required in the previous paragraph, refer to Chapters 3 to 9 of this Guide to upgrade to the required release of Management Framework.

Web Server Software Upgrades

Before migrating, you may need to upgrade the software that is required to enable your web server to function properly with Genesys Administrator 8.1. Refer to "Prerequisites" in the following section to determine if you need to upgrade the software.

Migration to 8.1

This section contains the prerequisites and procedures to upgrade to Genesys Administrator 8.1.

Prerequisites

To support Genesys Administrator 8.1, your web server must be running the following software:

- on Windows 2003:
  - Microsoft Information Internet Services (IIS), version 6
  - .NET Framework 3.5 SP1/ ASP.Net 2.0
- on Windows 2008:
  - Microsoft IIS, version 7
  - .NET Framework 3.5 SP1/ ASP.Net 2.0
- on Windows 2008 R2:
  - Microsoft IIS, version 7.5

- .NET Framework 3.5 SP1/ ASP.Net 2.0

If you are running on Windows Server 2008 with Service Pack 2, and want to use a remote IP repository for deployment functionality based on a remote NFS file system, ensure that you have applied Windows update kb978845 and/or have taken other steps to address this issue.

Note: Genesys Administrator 8.1.3 does not support remote deployment of IPs. This functionality was moved to Genesys Administrator Extension 8.1.4.

Upgrading to Genesys Administrator 8.1.3

In release 8.1.3, Genesys Administrator optionally supports the import and display of data encoded in UTF-8 format. This functionality requires Management Framework 8.1.2 or later.

For Genesys Administrator to support UTF-8 encoding, the Configuration Database and Configuration Server must be configured appropriately. For more information about this configuration, refer to Chapter 4 in this Guide, and to the *Framework 8.1 Deployment Guide*.

Conversion of IP Repositories

When you migrate to Genesys Administrator 8.1.1 or later, deployment repository content is converted to support the storage of 32-bit and 64-bit IPs for the same platform. All IPs in existing repositories are treated as 32-bit IPs.

In Genesys Administrator 8.1.3, support of the remote deployment of IPs was moved to Genesys Administrator Extension 8.1.4. In Genesys Administrator Extension, you can upload IPs that are stored in a Genesys Administrator IP repository, by using the following procedure.

Procedure: Uploading Genesys Administrator Repositories into Genesys Administrator Extension

Purpose: To enable Genesys Administrator Extension to deploy IPs formerly stored in Genesys Administrator repositories.

Prerequisites

- You are using Genesys Administrator 8.1.4 or later.

Start of procedure

1. In Genesys Administrator Extension, go to `Configuration` > `Solution Deployment` > `Installation Packages`.

2. In the Installation Packages panel, click New.
3. In the new Software Installation Wizard panel, select UNC Path to an Existing Administrator Repository.
4. In the text field, type the path to the existing Genesys Administrator repository.
5. Click Next to open the path. A list of IPs found at the specified location is displayed.
6. Click the check box beside each IP that you want to upload.
7. Click Finish.

   A progress bar is displayed showing the status of the upload process. Click Close at any time to close the panel without interrupting the upload procedure. The status of the IP upload will be displayed in the Installation Packages list.

End of procedure

Refer to *Genesys Administrator Extension Help* for specific instructions about using the Solutions Deployment module.

Migration Procedure

After you have performed all necessary upgrades of your operating system, Management Framework, and web server software, use the procedure "Migrating to Genesys Administrator 8.1.x" on page 150 to migrate to the latest version of Genesys Administrator 8.1.x.

This migration procedure removes the previous version of Genesys Administrator, reboots the machine if necessary, then finishes installing the new version.

Warning! Do not remove your older version of Genesys Administrator before upgrading to the new release. Doing so may result in missing metadata or IP Repositories.

Procedure: Migrating to Genesys Administrator 8.1.x

Purpose: To upgrade to the latest version of Genesys Administrator 8.1.x.

Prerequisites

- The correct version of Management Framework 8.0 or later, identified in "Management Framework Upgrades" on page 148, is installed and running.

- The web server is running the software identified in "Prerequisites" on page 148.

Start of procedure

1. On the Genesys Administrator 8.1 product CD, locate and open the installation directory `/web_configuration_manager/`.
2. Locate and double-click `setup.exe` to start the Genesys Installation Wizard.
3. Use the `About` button on the wizard's `Welcome` page to review the `readme` file. This file also contains a link to Genesys Administrator's Release Note.
4. Click `Next` on the wizard's `Welcome` page to start the upgrade.
5. The wizard detects the old version of Genesys Administrator and the `Maintenance Setup` page appears. Select the older version from the list, and click `Next` to proceed.

   The next step begins the upgrade itself. The wizard might restart the computer during the process, so it is strongly recommended that you close all open applications before proceeding.
6. On the `Ready to Upgrade` page, click:
   - `Back` to update any installation information.
   - `Install` to proceed with the upgrade. The computer might restart at this point.
7. If the wizard did restart the computer, click `Next` on the wizard's `Welcome` page to continue the upgrade.
8. On the `Security Banner Configuration` page, do one of the following:
   - If you want to configure a security banner to be displayed at login, select `Enable Security Banner`. Follow the steps in the wizard, as described in the *Genesys 8.x Security Deployment Guide*.
   - If you do not want to configure a Security Banner, leave the `Enable Security Banner` checkbox clear.

   Click `Next`.
9. On the `Ready to Install` page, click:
   - `Back` to update any installation information.
   - `Install` to proceed with the installation. `Installation Status` displays the installation progress.
10. On the `Installation Complete` page, click `Finish`.

End of procedure

Rollback Procedure

When upgrading Genesys Administrator, the installation wizard detects the previous version and removes it automatically. In general, to roll back to the

previous version, use the procedure "Rolling back to the previous version of Genesys Administrator" on page 152.

Procedure:
Rolling back to the previous version of Genesys Administrator

Start of procedure

1. Remove the existing version of Genesys Administrator, as follows:
   a. Go to `Start` > `Settings` > `Control Panel`.
   b. Select `Add or Remove Programs`.
   c. Select the version of Genesys Administrator already installed and click `Remove`. The Installation Wizard will uninstall the application.
2. Reboot your computer. This step is not required but is recommended.
3. Install the previous version of Genesys Administrator. Refer to the Readme file in the IP Installation Wizard to determine the appropriate version of Genesys Administrator to install.

End of procedure

Changes in Genesys Administrator

This section describes major changes in Genesys Administrator functionality and architecture, and in configuration options for Genesys Administrator.

Component Changes for Genesys Administrator

Table 20 on page 153 summarizes all high-level component differences for Genesys Administrator from release 8.0 through 8.1, with the most recent changes listed first. For detailed information about new features and functions available in Genesys Administrator 8.1, refer to the *Framework 8.1 Genesys Administrator Deployment Guide.*

Table 20: Genesys Administrator Configuration Changes Between Release 8.0 and Release 8.1

Type of Change	Change Occurred in Release	Details
Discontinued functionality	8.1	Remote IP deployment is discontinued in Genesys Administrator 8.1.3 and moved to Genesys Administrator Extension 8.1.4 as Solution Deployment functionality. Genesys Administrator Extension can upload IPs stored in Genesys Administrator repositories, so IPs do not need to be manually transferred between repositories.
Deployment enhancements	8.1	When using the Remote Deployment Wizard, users can now: • Configure connections for the Application being deployed. One or more connections can be configured in a single step. • Configure a secure client-side port connection for the Application being deployed. • Validate the uniqueness of ports selected during configuration.
Security enhancements	8.1	When using permissions: • Permissions can now be managed for all authorized users of an object at once. • Permissions can now be replaced recursively.
		When using Role-Based Access Control: • Role privileges for Genesys Administrator can be accessed only from the Environment Tenant. In a multi-tenant environment, role privileges for Applications other than Genesys Administrator can be accessed from any Tenant. • A User can now be granted privileges to create a new Tenant, without being able to access all of the existing Tenants. • A User can now be granted privileges to access the Search functionality on the Provisioning tab.
		Genesys Administrator now supports Read-only Mode and Emergency Mode.
		You can now configure Genesys Administrator to use a secure flag so the cookie's information is transmitted only over an HTTPS-encrypted channel.

Table 20: Genesys Administrator Configuration Changes Between Release 8.0 and Release 8.1 (Continued)

Type of Change	Change Occurred in Release	Details
Security enhancements (cont.)	8.1	When logging in: • Genesys Administrator now supports the standard Genesys Security Banner feature at login. • The amount of detailed technical information displayed in an authentication error message is now configurable. • Genesys Administrator can now be configured to prompt the User to change his or her password, usually when the user is logging into the system for the first time, or when their password is about to expire. This feature must be activated in Configuration Server 8.1.1 or later to be available for use in Genesys Administrator.
Solution support	8.1	For the eServices Solution: • You can now use Genesys Administrator to provision Multimedia/eServices SCXML applications on Interaction Queues. • Genesys Administrator now supports UTF-8 encoding for Business Attributes objects.
Solution support (cont.)	8.1	For the Outbound Contact Solution: • You can now provision Script objects of type Outbound Schedule under Outbound Contact. These Outbound Schedules enable the user to automate periodic execution of dialing sessions (for example, daily, weekly, monthly, and so on), based on preconfigured settings. Outbound Schedules also allow automatic control over dialing session executions (such as activation, deactivation, starting, stopping, and modification of dialing mode) based on time or in response to meeting user-defined conditions. • You can now change the name of the script that is associated with an Outbound schedule from within the properties dialog box of the schedule. • When configuring Schedules, you can define the dialing priorities for each dialing session for the Load, Start, and Set Dialing Mode actions. • The list of Dialing Sessions now displays Stat Server, Max Queue Size, IVR Profile, Interaction Queue, and Trunk Group DN for each session. • Genesys Administrator now supports the creation of a Calling List based on a PostgreSQL database. • The refresh rate that you set in Genesys Administrator User Preferences now applies also to viewing Outbound Contact Reports.

Table 20: Genesys Administrator Configuration Changes Between Release 8.0 and Release 8.1 (Continued)

Type of Change	Change Occurred in Release	Details
Solution support (cont.)	8.1	For the Outbound Contact Solution (cont.): • Genesys Administrator now supports an Outbound Contact Solution deployed using the PostgreSQL database. • The refresh rate that you set in Genesys Administrator User Preferences now applies also to viewing Outbound Contact Reports. • You can now choose which statistics to display, and define the properties of these statistics, for all Outbound Contact reports available in Genesys Administrator. • The following features require Outbound Contact 8.1.2: ◦ Genesys Administrator now supports the Predictive GVP dialing mode and a new optimization parameter (Average Distribution Time) for individual Campaigns, Campaign Sequences, and Schedules. ◦ Genesys Administrator now supports the new optimization parameter, Maximum Gain, and its target value for individual Campaigns, Campaign Sequences, and Schedules, in predictive dialing modes. ◦ You can now choose to use predefined Stored Procedures in Outbound Contact Server for Calling Lists and Campaigns, or to define customized Stored Procedures in Genesys Administrator.
		For the Routing Solution: • You can now use Genesys Administrator to load and unload Routing Strategies (Simple Routing Scripts) on and from DNs and DN Groups, and to schedule that loading and unloading. • Genesys Administrator now validates Routing Strategies to confirm that all applicable configuration objects exist. • Genesys Administrator supports the new Operational Reporting (OR) feature on the Orchestration Server (release 8.1.0 or later), which enables you to: ◦ View specific statistics and details about active and recently active sessions in an Orchestration deployment. ◦ Search for sessions in an Orchestration deployment, and from the search results, terminate any of those sessions. ◦ Specify an alternate Universal Resource Identifier (URI) when configuring a script of type Enhanced Routing for Orchestration • Genesys Administrator now supports UTF-8 encoding for Business Attributes name and value.

Table 20: Genesys Administrator Configuration Changes Between Release 8.0 and Release 8.1 (Continued)

Type of Change	Change Occurred in Release	Details
Solution Support (cont.)	8.1	For the SIP Server Solution, you can now configure and synchronize peer SIP Servers for Disaster Recovery.
		For the Voice Platform Solution: • You can use the new Recording Server Resource Group to group and manage Recording Group resources. • You can now view CTI Connector (CTIC) component and Intelligent Contact Management (ICM) connection statistics using the new CTIC Dashboard. • The new ASR/TTS Usage and ASR/TTS Usage Peaks Reports generated by the Automatic Speech Recognition (ASR) Server and Text-to-Speech (TTS) Server components provide metrics on a per-component, -IVR Profile, -Tenant, and -deployment basis. • You can now validate the uniqueness of DIDs across all Tenants. • Historical Media Control Platform (MCP) Call Detail Record (CDR) reports now include information to indicate which platform resources have been used in the call. Examples of such resources include ASR, TTS, Video, and VoiceXML. Please consult the GVP documentation for a complete list. • You can now view information about the per-call Interaction Voice Response (IVR) Actions and a list of custom variables for the session using the Historical Call Browser for MCP. • You can now combine information from all sites in the system in the following reports: ◦ Tenant and IVR Profile Call Arrivals Reports ◦ Voice Application Reporting (VAR) IVR Action Usage and Summary ◦ ASR/TTS Usage Report • Resource Manager (RM) CDRs displayed in the Active and Historical Call Browser now include the Site ID. • You can now use the IVR Profile Wizard to enter authentication parameters used by GVP context services. • If primary and backup Policy Servers are configured, when Genesys Administrator tries to access the Policy Server to obtain information, it will first try the Policy Server instance to which it was last successful in gaining access.

Table 20: Genesys Administrator Configuration Changes Between Release 8.0 and Release 8.1 (Continued)

Type of Change	Change Occurred in Release	Details
Usability enhancements	8.1	Genesys Administrator now supports access from client browsers and connectivity to other Genesys servers via IPv6 when IPv6 addresses are set up properly in the Domain Name System.
		Third-party applications can now log in to Genesys Administrator on behalf of the user, without the User having to interact with the Genesys Administrator login dialog box.
		The Centralized Log now supports searching of log records by user and tenant.
		You can, at any time, change the Log Database Access Point (DAP) or the Solution Control Server to which Genesys Administrator is connected without having to log out and log back in. The choices of Log DAPs and Solution Control Servers to which Genesys Administrator can connect, however, is limited to those in the list of connections for the Genesys Administrator Application object in Configuration Server.
		Configuration of connections is optimized so that you can add connections with default parameters in a single step.
		In the list of Applications and Solutions, the Status (stopped, started) is now refreshed automatically at a rate that is the greater of every 15 seconds or the refresh rate specified in the User Preferences.
		Genesys Administrator can now work with Alarm Reaction Scripts that identify the application, host, or object by DBID or by its name as supported by Management Layer 8.1.1 and later. This ensures full compatibility with new and legacy script definitions.
		Users can view additional fields added to audit logs, and can use these new fields as filter criteria
		Dates and times are now displayed using the same calendar and time zone as the language pack installed on the Genesys Administrator server.
		Genesys Administrator can now display UTF-8-encoded data from any database that supports the multi-language feature in Management Framework.
		For each Host, a list of the Applications installed on that Host is displayed, as is the status and mode of each Application.
		For each Solution, a list of the Applications making up that Solution is displayed, as is the status and mode of each Application.

Table 20: Genesys Administrator Configuration Changes Between Release 8.0 and Release 8.1 (Continued)

Type of Change	Change Occurred in Release	Details
Usability enhancements (cont.)	8.1	You can now provision more object and properties in bulk as follows: • Create and modify User, DN, DN Group, Agent Group, Place, Place Group, and Tenant objects by importing a .csv text file. • Export to an import-compatible .csv file existing User, DN, DN Group, Agent Group, Place, Place Group, and Tenant objects, which can then be modified off-line and imported back into Genesys Administrator, if required. You can also choose to sort the exported data, enabling columns with master/details to be consolidated when viewed in a spreadsheet. In release 8.1.3, you can also specify the list delimiter used in the file. • Create a range of User and Place objects. • Add an Agent to one or more Agent Groups while configuring the Agent. You can optionally apply throttling to bulk operations to ensure that Configuration Server is not overwhelmed by the volume of processing requests. Refer to *Genesys Administrator Help* for detailed instructions about bulk operations, including throttling.
		You can now view operating statistics about a Host.
		In a multi-tenant environment, users can now view Permissions in a flat list (Simple Mode) or in a logical tree structure by Tenant. In this mode, a user with the necessary permissions and role privileges can setup every possible combination of permissions. Users can switch between the two modes as required.
		In a multi-tenant environment, users can now view the list of Tenant objects as a flat list (Simple Mode) or as a logical tree in which you open the parent Tenant to view the child Tenants (Advanced Mode). Users can switch between the two modes as required.
		When creating new Tenants, users can set additional options to customize the information that is required at creation.
		Users can now configure an Agent Group with multiple supervisors.
		Users can now filter a list of Agents by Skill and Skill Level properties.

Configuration Option Changes for Genesys Administrator

This section documents all configuration option changes in Genesys Administrator from release 8.0 through 8.1.

Genesys Administrator configuration options are described in detail in the *Genesys Administrator Deployment Guide*.

Table 21: Option Changes in Genesys Administrator

Option Name	Configuration Section Name	Type of Change	Change Occurred in Release	Additional Information
cs_resp_timeout	default	New	8.1	
csv-separator	default	New	8.1	
Stat<n>	GAOutboundCampaign Stats	New	8.1	
BulkUpdateBatchSize	CSThrottling	New	8.1	
BulkUpdateBatchTimeout	CSThrottling	New	8.1	
RowIdx	AgentBulkProcess	New	8.1	
MaxRowColumns	AgentBulkProcess	New	8.1	
UserName	AgentBulkProcess	New	8.1	
FirstName	AgentBulkProcess	New	8.1	
LastName	AgentBulkProcess	New	8.1	
Password	AgentBulkProcess	New	8.1	
EmployeeID	AgentBulkProcess	New	8.1	
State	AgentBulkProcess	New	8.1	
AgentFlag	AgentBulkProcess	New	8.1	
SkillAdded	AgentBulkProcess	New	8.1	
SkillLevel	AgentBulkProcess	New	8.1	
SkillDeleted	AgentBulkProcess	New	8.1	
SwitchName	AgentBulkProcess	New	8.1	
AgentLogin	AgentBulkProcess	New	8.1	
WrapUpTime	AgentBulkProcess	New	8.1	

Table 21: Option Changes in Genesys Administrator (Continued)

Option Name	Configuration Section Name	Type of Change	Change Occurred in Release	Additional Information
SectionName	AgentBulkProcess	New	8.1	
OptionName	AgentBulkProcess	New	8.1	
OptionValue	AgentBulkProcess	New	8.1	
SwitchDeleted	AgentBulkProcess	New	8.1	
AgentLoginDeleted	AgentBulkProcess	New	8.1	
AccessGroup	AgentBulkProcess	New	8.1	
AccessGroupDeleted	AgentBulkProcess	New	8.1	
AgentGroup	AgentBulkProcess	New	8.1	
AgentGroupDeleted	AgentBulkProcess	New	8.1	
RowIdx	AgentGroupBulkProcess	New	8.1	
MaxRowColumns	AgentGroupBulkProcess	New	8.1	
AgentGroupName	AgentGroupBulkProcess	New	8.1	
State	AgentGroupBulkProcess	New	8.1	
Agent	AgentGroupBulkProcess	New	8.1	
AgentRemoved	AgentGroupBulkProcess	New	8.1	
SectionName	AgentGroupBulkProcess	New	8.1	
OptionName	AgentGroupBulkProcess	New	8.1	
OptionValue	AgentGroupBulkProcess	New	8.1	
RowIdx	DNBulkProcess	New	8.1	
MaxRowColumns	DNBulkProcess	New	8.1	
Number	DNBulkProcess	New	8.1	
Type	DNBulkProcess	New	8.1	
State	DNBulkProcess	New	8.1	
Register	DNBulkProcess	New	8.1	

Table 21: Option Changes in Genesys Administrator (Continued)

Option Name	Configuration Section Name	Type of Change	Change Occurred in Release	Additional Information
RouteType	DNBulkProcess	New	8.1	
SwitchSpecificType	DNBulkProcess	New	8.1	
Association	DNBulkProcess	New	8.1	
Alias	DNBulkProcess	New	8.1	
SectionName	DNBulkProcess	New	8.1	
OptionName	DNBulkProcess	New	8.1	
OptionValue	DNBulkProcess	New	8.1	
RowIdx	DNGroupBulkProcess	New	8.1	
MaxRowColumns	DNGroupBulkProcess	New	8.1	
DNGroupName	DNGroupBulkProcess	New	8.1	
State	DNGroupBulkProcess	New	8.1	
GroupType	DNGroupBulkProcess	New	8.1	
DNName	DNGroupBulkProcess	New	8.1	
DNRemoved	DNGroupBulkProcess	New	8.1	
SectionName	DNGroupBulkProcess	New	8.1	
OptionName	DNGroupBulkProcess	New	8.1	
OptionValue	DNGroupBulkProcess	New	8.1	
RowIdx	PlaceBulkProcess	New	8.1	
MaxRowColumns	PlaceBulkProcess	New	8.1	
PlaceName	PlaceBulkProcess	New	8.1	
State	PlaceBulkProcess	New	8.1	
DN	PlaceBulkProcess	New	8.1	
DNRemoved	PlaceBulkProcess	New	8.1	
SectionName	PlaceBulkProcess	New	8.1	

Table 21: Option Changes in Genesys Administrator (Continued)

Option Name	Configuration Section Name	Type of Change	Change Occurred in Release	Additional Information
OptionName	PlaceBulkProcess	New	8.1	
OptionValue	PlaceBulkProcess	New	8.1	
RowIdx	PlaceGroupBulkProcess	New	8.1	
MaxRowColumns	PlaceGroupBulkProcess	New	8.1	
PlaceGroupName	PlaceGroupBulkProcess	New	8.1	
State	PlaceGroupBulkProcess	New	8.1	
PlaceName	PlaceGroupBulkProcess	New	8.1	
PlaceNameRemoved	PlaceGroupBulkProcess	New	8.1	
SectionName	PlaceGroupBulkProcess	New	8.1	
OptionName	PlaceGroupBulkProcess	New	8.1	
OptionValue	PlaceGroupBulkProcess	New	8.1	
RowIdx	TenantBulkProcess	New	8.1	
MaxRowColumns	TenantBulkProcess	New	8.1	
TenantName	TenantBulkProcess	New	8.1	
State	TenantBulkProcess	New	8.1	
ParentName	TenantBulkProcess	New	8.1	
ChargNumber	TenantBulkProcess	New	8.1	
SectionName	TenantBulkProcess	New	8.1	
OptionName	TenantBulkProcess	New	8.1	
OptionValue	TenantBulkProcess	New	8.1	
EnableNewTenCustomization	TenantCreateDialog	New	8.1	
TenantAdminAccountChkbox	TenantCreateDialog	New	8.1	
TenantAdministratorsRoles	TenantCreateDialog	New	8.1	
TenantAdministratorsRolesChkbox	TenantCreateDialog	New	8.1	

Table 21: Option Changes in Genesys Administrator (Continued)

Option Name	Configuration Section Name	Type of Change	Change Occurred in Release	Additional Information
TenantUsersRoles	TenantCreateDialog	New	8.1	
TenantUsersRolesChkbox	TenantCreateDialog	New	8.1	
TenantAdminLoginChkbox	TenantCreateDialog	New	8.1	
TenantUsersLoginChkbox	TenantCreateDialog	New	8.1	
TenantAdministratorsAccess	TenantCreateDialog	New	8.1	
TenantAdminCreateDefaultLegacyRanks	TenantCreateDialog	New	8.1	
TenantAppFolderCreateMode	TenantCreateDialog	New	8.1	
TenantAppAccountCreateMode	TenantCreateDialog	New	8.1	
TenantAppAccountCreateFormat	TenantCreateDialog	New	8.1	

Chapter

10 Migrating Genesys Administrator Extension

This chapter contains procedures for migrating to the latest version of Genesys Administrator Extension from an earlier version, and describes major changes in Genesys Administrator Extension and configuration option changes.

This chapter contains the following topics:

Interoperability with Other Framework Components

Genesys Administrator Extension resides in the User Interaction Layer of the Genesys Framework. This Layer provides comprehensive user interfaces to:

- Configure, monitor, and control the management environment.
- Perform specific tasks related to Solution Deployment, Operational Parameter Management, Audio Resource Management, and Configuration Object Management (formerly Account Management).

Preliminary Migration Procedures

Complete the procedures in this section before upgrading Genesys Administrator Extension.

Management Framework Upgrades

You must be running Management Framework 8.1.0 or later to support Genesys Administrator Extension.

If you are currently running a release of Management Framework earlier than the one that is specified in the previous paragraph, refer to the Management Framework chapters of this guide to upgrade to the required release of Management Framework.

Migration to 8.5.0

This section contains the prerequisites and procedures that are needed to upgrade to Genesys Administrator Extension 8.5.0.

Prerequisites

Genesys Administrator Extension uses Management Framework. To use the Role-based Access Control feature, Configuration Server 8.0.x or higher is required.

Notes:
- A new application type, `Genesys Administrator Server`, was introduced in Genesys Framework release 8.1.1 for use with Genesys Administrator Extension release 8.1.2 or higher. Previous versions of GAX do not support this new application type and must use the `Genesys Generic Server` application type.
- To avoid issues with role assignments, you should upgrade the application, metadata, and the roles to the new type when you migrate to the latest version of GAX or perform a fresh install.

The computer on which you install Genesys Administrator Extension must be capable of acting as a web application server, and must be running one of the following:

- Red Hat Enterprise Linux 5.5 (64-bit) - Enterprise Edition, with `Updates from RHN` enabled;
- Red Hat Enterprise Linux 6.0 (64-bit) - Enterprise Edition, with `Updates from RHN` enabled;

  Or,

- Windows Server 2008 R2, with 64-bit applications running natively on a 64-bit OS.
- Windows Server 2012, with 64-bit applications running natively on a 64-bit OS.

The computer must also run the following:

- Java 6 or Java 7 Runtime (JRE) from Oracle. See the *Genesys Administrator Extension Deployment Guide* for information about obtaining and installing Java, if necessary.

GAX 8.5.0 uses an embedded Jetty instance as the web application server; as a result, Tomcat is no longer a prerequisite to use GAX. For those who choose to use Tomcat instead of Jetty, GAX requires Tomcat 6.0.37 from Apache. Refer to "Migration Procedure" on page 169 for additional information.

In addition, each module of Genesys Administrator Extension might have additional prerequisites. Refer to the *Genesys Administrator Extension Deployment Guide* for more information.

Browser Requirements

Genesys Administrator Extension includes a web-based GUI with which you can manage Genesys applications and solutions. It is compatible with the following browsers:

- Microsoft Internet Explorer 8.x, 9.x, 10.x, 11.x
- Mozilla Firefox 17 or higher
- Safari 6 on Macintosh systems
- Chrome

Note:
- Genesys Administrator Extension supports all major browsers, but it is optimized for Chrome.
- If you use Microsoft Internet Explorer or Safari, refer to the *Genesys Administrator Extension Deployment Guide* for troubleshooting information specific to your browser.

Genesys Administrator Extension is designed to be viewed at a minimum screen resolution of 1024x768, although higher resolutions are recommended. If you are working in 1024x768 mode, maximize your browser to ensure that you can see all of the interface.

Required Permissions and Role Privileges

Genesys Administrator Extension uses a permission-based mechanism and a role-based access control system to protect your data. Before installing and using Genesys Administrator Extension, ensure that all users have the

necessary access permissions and role privileges to do their work. The following are examples of scenarios that require permissions:

- A Tenant user must have write (`Update`) permission on his or her `User` object to set and save his or her User Preferences in Genesys Administrator Extension.
- To log in to Genesys Administrator Extension, a user must have `Read` permission on his or her `User` object, `Read` and `Execute` permissions on his or her `Tenant` object, and `Read` and `Execute` permissions on the Genesys Administrator Extension client `Application` object. These permissions are usually assigned by adding the users to access groups.

There are no role privileges required to log in to GAX; however, GAX-specific functions may require additional role privileges to be enabled. Refer to the *Genesys Administrator Extension Deployment Guide* for more information about role privileges that are specific to Genesys Administrator Extension.

Deploying Multiple Instances of GAX with Shared Resources

You can install multiple instances of GAX to support both High Availability (HA) and load balancing. You can also install multiple instances of GAX to take advantage of the GAX plug-in architecture. Each instance of GAX can be deployed with a different combination of plug-ins.

In either scenario, the multiple instances of GAX share the same data resources, such as Configuration Server, the GAX database, and audio resources, but are executed independently by different users on different hosts.

Minimum Required Firewall Permissions and Settings for GAX Deployment

Your firewall must allow incoming connections on the http and https ports (for example, 8080, 80, 433, and so on, based on your setup). The application server can listen on more than one port at once.

You must allow outgoing connections to allow GAX to establish connections; however, you can restrict the connections to networks that contain the following components:

- GDA hosts
- Databases
- Genesys configuration layer servers: Configuration Server, Message Server, and Solution Control Server

Minimum Required File System Permissions and Settings for GAX Deployment

The GAX operating system user is the user that runs the GAX process. The GAX operating system user must have the following permissions:

- Write permission on the log file folder
- Read/write access to the folder configured for ARM (Audio Resource Management)

Enabling UTF-8 Encoding (for Oracle Databases)

Starting in release 8.1.3, Genesys Administrator Extension optionally supports UTF-8 character encoding for Oracle databases. This functionality requires Configuration Server 8.1.2 or later.

For more information, refer to the *Genesys Administrator Extension Deployment Guide.*

Migration Procedure

After you have performed all necessary upgrades to your operating system, Management Framework, and web browser, use the procedure "Upgrading GAX (Management Framework 8.1.1 or higher)" or the procedure "Upgrading GAX (Management Framework 8.1.0 or lower)" to migrate to the latest version of Genesys Administrator Extension.

Note: Genesys Administrator Extension 8.5.0 uses an embedded instance of Jetty for web-server functions, whereas previous releases have used Tomcat. The following upgrade procedures explain how to upgrade GAX to use Jetty. To continue using Tomcat, you must remove the old `<Tomcat Home>/webapps/gax` folder and copy the new `gax.war` file from the GAX installation folder to the `<Tomcat Home>/webapps` folder.

Procedure: Upgrading GAX (Management Framework 8.1.1 or higher)

1. Stop the instance of GAX that you want to upgrade.
2. Ensure that Management Framework, Configuration Server, and Genesys Administrator are all upgraded to versions that are compatible with the latest version of GAX before proceeding. Refer to the *Genesys Administrator Extension Deployment Guide* for more information.

3. Follow the procedure below that describes your GAX environment. You can skip this step if your GAX `Application` object type is `Genesys Administrator Server` and you do not intend to use the Pulse 8.5 plug-in.
   - Your GAX `Application` object is of type `Genesys Generic Server`.

     Create and configure the configuration objects that are required for the latest version of GAX by using Genesys Administrator to perform the following steps:

   a. Open your existing GAX `Application` object of type `Genesys Generic Server` in edit mode.
   b. Click the `Options` tab.
   c. Click `Export` to save your configured GAX options to a file on your local file system of type `CONF/CFG`.
   d. Create and configure a new Server `Application` object for Genesys Administrator Extension of type `Genesys Administrator Server`. Refer to the *Genesys Administrator Extension Deployment Guide* for more information.
      i. Ensure that you follow the steps that pertain to the use of Management Framework Configuration Server 8.1.1, or higher.
      ii. Replicate any configuration that you wish to add to your newly created `Application` object by referring to the GAX `Application` object of your previous version.
      iii. Click the `Options` tab.
      iv. Click `Import` and specify the `CONF/CFG` file that you previously created. Select `No` to not overwrite any existing options.
      v. (Optional) Create a DAP that points to the Log Database (refer to the *Genesys Administrator Extension Deployment Guide* for more information). Set the role of the DAP to auditing. Enable auditing by setting the value of the `general/auditing` option to `true`. Add the DAP to your GAX connections. On the `Options` tab of the DAP, in the `GAX` section, configure the `role` option with the value `auditing`.
   - You intend to use the Pulse 8.5 plug-in.

     You must reuse the existing GAX `Application` object if you intend to migrate to Pulse 8.5. To do so, use Genesys Administrator to perform the steps below:

   a. Upload the GAX 8.5 Application Template. Refer to the *Genesys Administrator 8.1 Help* for additional instructions on how to upload Application Templates.
   b. Open the GAX 8.5 `Application Template` object.
   c. Click the `Options` tab.
   d. Click `Export` to save your configured GAX options to a file on your local file system of type `CONF/CFG`.
   e. Close the GAX 8.5 `Application Template`.

f. Open your existing GAX `Application` object.

g. Click the `Options` tab.

h. Click `Import` and specify the `CONF/CFG` file that you previously created from the GAX 8.5 `Application Template`. Select `No` to not overwrite any existing options.

i. Click `Save & Close`.

4. (Optional) If you want to retain the installed plug-ins that you used with GAX 8.1.4, go to the GAX folder and back up the `webapp` folder by renaming it to `webapp_backup`.

5. On the target machine, run the GAX installer for the release to which you want to upgrade. The installer copies the binary file and copies all of the required files to the target directory. For more details, refer to the Procedure: Installing Genesys Administrator Extension server on a Linux host, on page 178 or Procedure: Installing Genesys Administrator Extension server on a Windows Server host, on page 179.

6. Execute all applicable database upgrade scripts, if necessary. To determine if you have to apply any database scripts:

   a. Execute the following SQL statement upon your existing GAX database: `select * from db_schema_version`.

   b. Compare the result with the update scripts in the `resources/sql_scripts` folder in the target directory of the installation.

Note: The latest database schema versions are:

- asd—8.5.000.01
- opm-arm—8.1.301.01
- core—8.1.301.01

The following examples list the upgrade scripts for Solution Deployment:

- (Oracle only) gax_asd_upgrade_db_8.1.320.01_to_8.5.000.01_ora.sql
- (Microsoft SQL only) gax_asd_upgrade_db_8.1.320.01_to_8.5.000.01_mssql.sql
- (PostgreSQL only) gax_asd_upgrade_db_8.1.320.01_to_8.5.000.01_postgres.sql

7. As a local user on the host machine, whether in person or via a remote desktop connection, launch GAX and run Setup Mode. Follow the instructions in Procedure: Deploying Genesys Administrator Extension, on page 176.

8. (Optional) You can delete the previous GAX `Application` object after you have verified that the new release is working correctly.

9. To use the System Dashboard feature, you must set up a connection to Solution Control Server (SCS). Refer to Procedure: Adding a Connection to Solution Control Server from GAX, on page 179.

10. If you backed up the `webapp` folder in Step 4 to `webapp_backup`, you must perform the following actions:
    a. Stop GAX.
    b. Copy the plug-in .jar files from `webapp_backup` to the new `webapp` folder in the GAX 8.5.0 installation folder.
    c. Delete the `webapp_backup` folder.
    d. Start GAX.

End of procedure

Notes:
- Some plug-ins might require additional configuration. Refer to the plug-in documentation for more information about installing and configuring the plug-in.
- You must upload the plug-in installation package into GAX if the plug-in contains new privileges.
- If you are migrating from Tomcat to Jetty, you might need to update the paths used in the `asd` configuration options if they refer to the `{CATALINA_HOME}` variable that was previously used by Tomcat. For example:

  ```
  asd.silent_ini_path={CATALINA_HOME}/webapps/gax/WEB-
  INF/classes/xmltemplates/ga_default/
  genesys_silent_ini.xml
  asd.local_ip_cache_dir = {CATALINA_HOME}/gaxLocalCache
  ```

  The above two options must be set to a new path, such as:

  ```
  asd.silent_ini_path=./plugin.data/asd/installation/
  genesys_silent_ini.xml
  asd.local_ip_cache_dir =./plugin.data/asd/gaxLocalCache
  ```
- Role privileges must be renewed if the application type is changed. Genesys stores role privileges that are associated with the application type to which they apply, but since GAX is associated with `Genesys Administrator Server` in 8.1.1 releases of Management Framework (for GAX 8.1.2 and higher), not `Genesys Generic Server`, the role privileges must be set using the correct type.
- Database upgrade scripts that have version numbers prior to the ones from which you upgraded do not have to be executed. You must log in to the database schema as a GAX user and run the commands inside the SQL scripts as commands for the database.

- If you are upgrading from release 8.1.x to 8.5.0, when you execute the SQL upgrade scripts, make sure that the scripts are properly committed. If your client application has auto-commit switched off, you might have to add the following line(s) to the scripts.

  a. For Oracle:

  ```
  commit;
  ```

  b. For MS SQL:

  ```
  BEGIN TRANSACTION;
  COMMIT TRANSACTION;
  ```

- For PostgreSQL:

  ```
  commit;
  ```

Procedure: Upgrading GAX (Management Framework 8.1.0 or lower)

1. Stop the instance of GAX that you intend to upgrade.
2. (Optional) Complete this step if you intend to migrate an earlier version of Pulse to Pulse 8.5.

   You must reuse the existing GAX `Application` object if you intend to migrate to Pulse 8.5. To do so, use Genesys Administrator to perform the steps below:

   a. Upload the GAX 8.5 Application Template. Refer to the *Genesys Administrator 8.1 Help* for additional instructions on how to upload Application Templates.

   b. Open the GAX 8.5 `Application Template` object.

   c. Click the `Options` tab.

   d. Click `Export` to save your configured GAX options to a file on your local file system of type `CONF/CFG`.

   e. Close the GAX 8.5 `Application Template`.

   f. Open your existing GAX `Application` object.

   g. Click the `Options` tab.

   h. Click `Import` and specify the `CONF/CFG` file that you previously created from the GAX 8.5 `Application Template`. Select `No` to not overwrite any existing options.

   i. Click `Save & Close`.
3. (Optional) If you want to retain the installed plug-ins that you used with GAX 8.1.4, go to the GAX folder and back up the `webapp` folder by renaming it to `webapp_backup`.

4. On the target machine, run the GAX installer for the release to which you want to upgrade. The installer copies the binary file to the target directory that was defined during installation, and also copies all of the required files to the target directory. For more details, refer to Procedure: Installing Genesys Administrator Extension server on a Linux host, on page 178 or Procedure: Installing Genesys Administrator Extension server on a Windows Server host, on page 179.
5. Execute all applicable database upgrade scripts, if necessary. To determine if you have to apply any database scripts:
   a. Execute the following SQL statement upon your existing GAX database: `select * from db_schema_version`.
   b. Compare the result with the update scripts in the `resources/sql_scripts` folder in the target directory of the installation.

Note: The latest database schema versions are:
- asd—8.5.000.01
- opm-arm—8.1.301.01
- core—8.1.301.01

The following examples list the upgrade scripts for Solution Deployment:
- (Oracle only) gax_asd_upgrade_db_8.1.320.01_to_8.5.000.01_ora.sql
- (Microsoft SQL only) gax_asd_upgrade_db_8.1.320.01_to_8.5.000.01_mssql.sql
- (PostgreSQL only) gax_asd_upgrade_db_8.1.320.01_to_8.5.000.01_postgres.sql

6. As a local user on the host machine, whether in person or via a remote desktop connection, launch GAX and run Setup Mode. Follow the instructions in Procedure: Deploying Genesys Administrator Extension, on page 176.
7. (Optional) You can delete the previous GAX `Application` object after you have verified that the new release is working correctly.
8. To use the System Dashboard feature, you must set up a connection to Solution Control Server (SCS). Refer to Procedure: Adding a Connection to Solution Control Server from GAX, on page 179.
9. If you backed up the `webapp` folder in Step 3 to `webapp_backup`, you must perform the following actions:
   a. Stop GAX.
   b. Copy the plug-in .jar files from `webapp_backup` to the new `webapp` folder in the GAX 8.5.0 installation folder.
   c. Delete the `webapp_backup` folder.

d. Start GAX.

End of procedure

Notes:
- Some plug-ins might require additional configuration. Refer to the plug-in documentation for more information about installing and configuring the plug-in.
- You must upload the plug-in installation package into GAX if the plug-in contains new privileges.
- If you are migrating from Tomcat to Jetty, you might need to update the paths used in the `asd` configuration options if they refer to the `{CATALINA_HOME}` variable that was previously used by Tomcat. For example:

  ```
  asd.silent_ini_path = {CATALINA_HOME}/webapps/gax/WEB-
  INF/classes/xmltemplates/ga_default/
  genesys_silent_ini.xml
  asd.local_ip_cache_dir = {CATALINA_HOME}/gaxLocalCache
  ```

  The above two options must be set to a new path, such as:

  ```
  asd.silent_ini_path = ./plugin.data/asd/installation/
  genesys_silent_ini.xml
  asd.local_ip_cache_dir = ./plugin.data/asd/gaxLocalCache
  ```
- Role privileges must be renewed if the application type is changed. Genesys stores role privileges that are associated with the application type to which they apply, but since GAX is associated with `Genesys Administrator Server` in 8.1.1 releases of Management Framework (for GAX 8.1.2 and higher), not `Genesys Generic Server`, the role privileges must be set using the correct type.
- Database upgrade scripts that have version numbers prior to the ones from which you upgraded do not have to be executed. You must log in to the database schema as a GAX user and run the commands inside the SQL scripts as commands for the database.

- If you are upgrading from release 8.1.x to 8.5.0, when you execute the SQL upgrade scripts, make sure that the scripts are properly committed. If your client application has auto-commit switched off, you might have to add the following line(s) to the scripts.

  a. For Oracle:
  ```
  commit;
  ```
  b. For MS SQL:
  ```
  BEGIN TRANSACTION;
  COMMIT TRANSACTION;
  ```
  c. For PostgreSQL:
  ```
  commit;
  ```

Procedure: Deploying Genesys Administrator Extension

Purpose: To use Setup Mode to deploy Genesys Administrator Extension 8.5.0.

Start of procedure

1. Connect to GAX locally by opening a supported web browser and navigating to the location of your GAX host (for example: http://localhost:8080/gax/).

Note: Setup Mode is accessible only through a local connection. You cannot use Setup Mode if you connect remotely to the GAX host.

2. Select the `Username` field and enter `root`. By default, there is no password.
3. Click `Log In`.
4. Choose `Connect to an Existing Deployment`.
5. You must provide configuration information about the existing Management Framework deployment. This screen pre-populates with existing details about the deployment, such as:
   - Primary Configuration Server Host
   - `Port` number
   - Default Client Application Name
   - Username
   - Password

   If there are any errors, GAX prompts you to re-enter the configuration information.
6. Click `Next`.

7. Perform one of the following actions. If you intend to use the Pulse 8.5 plug-in with GAX, you must choose the first option:
   - Select the GAX `Application` object to be associated with the existing instance. The list includes all objects of type `CfgApplications` with a subtype of either `CFGGenesysAdministratorServer` or `CFGGenesysGenericServer`. If the associated `Host` object has the same host names or IP addresses as the current GAX instance, it is highlighted as `recommended`.
   - Create a new `Application` object. You must provide the following information:
     - `Administrator Extension Application Object Name`—Enter the name of the `Application` object to create.
     - `Template`—Select the application template to use.

   If the `Host` object does not exist, it is automatically created.
8. Click `Next`.
9. GAX prompts you to enter configuration information for the GAX database. This screen pre-populates with existing details that might be stored in Configuration Server. You must provide the following configuration information:
   - Database Server Type
   - Database Host
   - `Port` (numeric only)
   - Database Name
   - Username
   - Password
10. Click `Next`.
11. GAX verifies the database version and creates (or updates) the database access configuration. If an error occurs, an error message displays and you can either cancel or restart the deployment process.
12. Click `Finish`.
13. GAX restarts to finish the setup operation. When it is done, GAX displays the login screen and you can log in to GAX.

End of procedure

Related Procedures

These procedures are not required to upgrade Genesys Administrator Extension but might contain useful reference information.

Install Genesys Administration Extension Server

Refer to the Procedure: Installing Genesys Administrator Extension server on a Linux host, on page 178 or the Procedure: Installing Genesys Administrator Extension server on a Windows Server host, on page 179.

Procedure: Installing Genesys Administrator Extension server on a Linux host

Prerequisites

- The environment variable for `JRE_HOME` has been configured (see the *Genesys Administrator Extension Deployment Guide)*.

Purpose: To install the Genesys Administrator Extension application on a Linux host.

Start of procedure

1. Copy the IP to the host machine.
2. Navigate to the folder to which you copied the IP, and change the permissions of the installation file by entering the following command:
   ```
   chmod 755 install.sh
   ```
3. Run the installation file to extract and copy the necessary files by entering the following command:
   ```
   ./install.sh
   ```

   Note: When you install Genesys Administrator Extension, you might receive the following error message that indicates that installation was unsuccessful:

   ```
   Unable to find configuration information. Either you have
   not used configuration wizards and the GCTISetup.ini file
   was not created or the file is corrupted.
   ```

   Ignore this message; Genesys Administrator Extension was installed successfully.

4. Navigate to the folder in which you installed GAX, and run the `gax_startup.sh` file.

End of procedure

Procedure:
Installing Genesys Administrator Extension server on a Windows Server host

Prerequisites

- The environment variable for `JRE_HOME` has been configured (see the *Genesys Administrator Extension Deployment Guide*).

Purpose: To install the Genesys Administrator Extension application on a Windows Server host.

Start of procedure

1. Copy the IP to the host machine.
2. Run the installation file to extract and copy the necessary files by entering the following command:

   ```
   ./setup.exe
   ```

   If there is an existing installation of GAX on the host, the installer will display a dialog box that prompts you to confirm whether or not you want to maintain the existing installation.
3. Navigate to the folder in which you installed GAX and run the `gax_startup.bat` file.

End of procedure

Procedure:
Adding a Connection to Solution Control Server from GAX

Purpose: GAX must have a connection to Solution Control Server (SCS) for the System Dashboard feature to function.

Start of procedure

1. In GAX, go to Configuration Manager.
2. Hover over the `Environment` icon and select `Applications` in the pop-up list.
3. In the `Applications` list, open the Application object for GAX.
4. In the GAX Application object details window, click the `Connections` tab.
5. Click `Add`.

6. In the pop-up window, enter information about the connection to SCS. Refer to the *Genesys Administrator Extension Help* for more information on how to configure a connection.
7. Click `OK`.
8. Click `Save`.
9. Restart GAX.

Migration to 8.1.4

This section contains the prerequisites and procedures that are needed to upgrade to Genesys Administrator Extension 8.1.4.

Prerequisites

Genesys Administrator Extension uses Management Framework. To use the Role-based Access Control feature, Configuration Server 8.1.x is required.

Notes:
- A new application type, `Genesys Administrator Server`, was introduced in Genesys Framework release 8.1.1 for use with Genesys Administrator Extension release 8.1.2 or higher. Previous versions of GAX do not support this new application type and must use the `Genesys Generic Server` application type.
- To avoid issues with role assignments, you should upgrade the application, metadata, and the roles to the new type when you migrate to the latest version of GAX or perform a fresh install.

The computer on which you install Genesys Administrator Extension must be capable of acting as a web application server, and must be running one of the following:

- Red Hat Enterprise Linux 5.5 (64-bit) - Enterprise Edition, with `Updates from RHN` enabled;
- Red Hat Enterprise Linux 6.0 (64-bit) - Enterprise Edition, with `Updates from RHN` enabled;

  Or,
- Windows Server 2008 R2, with 64-bit applications running natively on a 64-bit OS.
- Windows Server 2012, with 64-bit applications running natively on a 64-bit OS.

The computer must also run the following:

- Java 6 or Java 7 Runtime (JRE) from Oracle. See the *Genesys Administrator Extension Deployment Guide* for information about obtaining and installing Java, if necessary.

GAX 8.1.4 uses an embedded Jetty instance as the web application server; as a result, Tomcat is no longer a prerequisite to use GAX. For those who choose to use Tomcat instead of Jetty, GAX requires Tomcat 6.0.37 from Apache. Refer to "Migration Procedure" on page 183 for additional information.

In addition, each module of Genesys Administrator Extension might have additional prerequisites. Refer to the *Genesys Administrator Extension Deployment Guide* for more information.

Browser Requirements

Genesys Administrator Extension includes a web-based GUI with which you can manage Genesys applications and solutions. It is compatible with the following browsers:

- Microsoft Internet Explorer 8.x, 9.x, 10.x
- Mozilla Firefox 17 or higher
- Safari 6 on Macintosh systems
- Chrome

> **Note:** Genesys Administrator Extension supports all major browsers, but it is optimized for Chrome.

Genesys Administrator Extension is designed to be viewed at a minimum screen resolution of 1024x768, although higher resolutions are recommended. If you are working in 1024x768 mode, maximize your browser to ensure that you can see all of the interface.

Required Permissions and Role Privileges

Genesys Administrator Extension uses a permission-based mechanism and a role-based access control system to protect your data. Before installing and using Genesys Administrator Extension, ensure that all users have the necessary access permissions and role privileges to do their work. The following are examples of scenarios that require permissions:

- A Tenant user must have write (`Update`) permission on his or her `User` object to set and save his or her User Preferences in Genesys Administrator Extension.

- To log in to Genesys Administrator Extension, a user must have `Read` permission on his or her `User` object, `Read` and `Execute` permissions on his or her `Tenant` object, and `Read` and `Execute` permissions on the Genesys Administrator Extension client `Application` object. These permissions are usually assigned by adding the users to access groups.

There are no role privileges required to log in to GAX; however, GAX-specific functions may require additional role privileges to be enabled. Refer to the *Genesys Administrator Extension Deployment Guide* for more information about role privileges that are specific to Genesys Administrator Extension.

Deploying Multiple Instances of GAX with Shared Resources

You can install multiple instances of GAX to support both High Availability (HA) and load balancing. You can also install multiple instances of GAX to take advantage of the GAX plug-in architecture. Each instance of GAX can be deployed with a different combination of plug-ins.

In either scenario, the multiple instances of GAX share the same data resources, such as Configuration Server, the GAX database, and audio resources, but are executed independently by different users on different hosts.

Minimum Required Firewall Permissions and Settings for GAX Deployment

Your firewall must allow incoming connections on the http and https ports (for example, 8080, 80, 433, and so on, based on your setup). The application server can listen on more than one port at once.

You must allow outgoing connections to allow GAX to establish connections; however, you can restrict the connections to networks that contain the following components:

- GDA hosts
- Databases
- Genesys configuration layer servers: Configuration Server, Message Server, and Solution Control Server

Minimum Required File System Permissions and Settings for GAX Deployment

The GAX operating system user is the user that runs the GAX process. The GAX operating system user must have the following permissions:

- Write permission on the log file folder
- Read/write access to the folder configured for ARM

Enabling UTF-8 Encoding (for Oracle Databases)

Starting in release 8.1.3, Genesys Administrator Extension optionally supports UTF-8 character encoding for Oracle databases. This functionality requires Configuration Server 8.1.2 or later.

For more information, refer to the *Genesys Administrator Extension Deployment Guide.*

Migration Procedure

After you have performed all necessary upgrades to your operating system, Management Framework, and web browser, use the procedure "Upgrading to the latest Genesys Administrator Extension for Management Framework 8.1.1 or higher" or the procedure "Upgrading to the latest Genesys Administrator Extension for Management Framework 8.1.0 or lower" to migrate to the latest version of Genesys Administrator Extension.

Note: Genesys Administrator Extension uses an embedded instance of Jetty for web-server functions, whereas previous releases have used Tomcat. The following upgrade procedures explain how to upgrade GAX to use Jetty. To continue using Tomcat, you must remove the old `<Tomcat Home>/webapps/gax` folder and copy the new `gax.war` file from the GAX installation folder to the `<Tomcat Home>/webapps` folder.

Procedure: Upgrading to the latest Genesys Administrator Extension for Management Framework 8.1.1 or higher

Purpose: To upgrade from an earlier release of GAX to the latest release for Management Framework 8.1.1 or higher.

Start of procedure

1. Stop the instance of GAX that you want to upgrade.
2. Ensure that Management Framework, Configuration Server, and Genesys Administrator are all upgraded to versions that are compatible with the latest version of GAX before proceeding. Refer to the *Genesys Administrator Extension Deployment Guide* for more information.

3. (This step applies only to instances that use GAX `Application` object of type `Genesys Generic Server`.) Create and configure the configuration objects that are required for the latest version of GAX by using Genesys Administrator to perform the following steps:
   a. Open your existing GAX `Application` object of type `Genesys Generic Server` in edit mode.
   b. Click the `Options` tab.
   c. Click `Export` to save your configured GAX options to a file on your local file system of type `CONF/CFG`.
   d. Create and configure a new Server `Application` object for Genesys Administrator Extension of type `Genesys Administrator Server`. Refer to the *Genesys Administrator Extension Deployment Guide* for more information.
      i. Ensure that you follow the steps that pertain to the use of Management Framework Configuration Server 8.1.1, or higher.
      ii. Replicate any configuration that you wish to add to your newly created `Application` object by referring to the GAX `Application` object of your previous version.
      iii. Click the `Options` tab.
      iv. Click `Import` and specify the `CONF/CFG` file that you previously created. Select `No` to not overwrite any existing options.
      v. (Optional) Create a DAP that points to the Log Database (refer to the *Genesys Administrator Extension Deployment Guide* for more information). Set the role of the DAP to auditing. Enable auditing by setting the value of the `general/auditing` option to `true`. Add the DAP to your GAX connections. On the `Options` tab of the DAP, in the `GAX` section, configure the `role` option with the value `auditing`.
4. On the target machine, run the GAX installer for the release to which you want to upgrade. The installer copies the binary file and copies all of the required files to the target directory. For more details, refer to the Procedure: Installing Genesys Administrator Extension server on a Linux host, on page 190 or Procedure: Installing Genesys Administrator Extension server on a Windows Server host, on page 191.
5. Remove or deactivate all old GAX objects. You can use only one GAX `Application` object to point to one physical GAX instance. If you want more than one GAX Application object to point to a single machine, you must install separate physical GAX instances on the same machine.

6. Execute all applicable database upgrade scripts, if necessary. To determine if you have to apply any database scripts, check the `resources/sql_scripts` folder in the target directory of the installation.

Note: GAX database schema version numbers are not necessarily synchronized with the version numbers of plug-ins, nor will they necessarily match the GAX release number. For example, your version of GAX might be 8.1.310.36 and your database schema version might be 8.1.301.01.

Perform one of the following actions, depending on your server installation:

- (Oracle only) Run all of the database upgrade scripts from the previous version. To determine if you have to apply any database scripts, check the `resources/sql_scripts` folder in the target directory of the installation.

  For example, if you intend to upgrade to the latest database version, you must execute the following SQL scripts in this order:

  - `gax_core_upgrade_db_8.1.201.25_to_8.1.301.01_ora.sql`
  - (For Solution Deployment only) `gax_asd_upgrade_db_8.1.301.01_to_8.1.401.01_ora.sql`
  - (For Operational Parameter Management only) `gax_opm_upgrade_db_8.1.201.15_to_8.1.301.01_ora.sql`
- (Microsoft SQL only) Run all of the database upgrade scripts from the previous version. To determine if you have to apply any database scripts, check the `resources/sql_scripts` folder in the target directory of the installation.

  For example, if you intend to upgrade to the latest database version, you must execute the following SQL scripts in this order:

  - `gax_core_upgrade_db_8.1.201.25_to_8.1.301.01_mssql.sql`
  - (For Solution Deployment only) `gax_asd_upgrade_db_8.1.301.01_to_8.1.401.01_mssql.sql`
  - (For Operational Parameter Management only) `gax_opm_upgrade_db_8.1.201.15_to_8.1.301.01_mssql.sql`
- (PostgreSQL only) Run all of the database upgrade scripts from the previous version. To determine if you have to apply any database scripts, check the `resources/sql_scripts` folder in the target directory of the installation.

  For example, if you intend to upgrade to the latest database version, you must execute the following SQL script:

  - `gax_asd_upgrade_db_8.1.301.01_to_8.1.401.01_postgres.sql`

7. As a local user on the host machine, whether in person or via a remote desktop connection, launch GAX and run Setup Mode. Follow the instructions in Procedure: Deploying Genesys Administrator Extension, on page 189.
8. (Optional) You can delete the previous GAX `Application` object after you have verified that the new release is working correctly.

Notes:
- Files that have version numbers prior to the ones from which you upgraded do not have to be executed.
- You must log in to the database schema as a GAX user and run the commands inside the SQL scripts as commands for the database.
- If you are upgrading from release 8.1.x to 8.1.4, when you execute the SQL upgrade scripts, make sure that the scripts are properly committed. If your client application has auto-commit switched off, you might have to add the following line(s) to the scripts.

  a. For Oracle:
  ```
  commit;
  ```
  b. For MS SQL:
  ```
  BEGIN TRANSACTION;
  COMMIT TRANSACTION;
  ```
  c. For PostgreSQL:
  ```
  commit;
  ```
- If you perform the upgrade and GAX does not function properly, delete the `webapp` folder in the GAX directory of the host machine.

Procedure: Upgrading to the latest Genesys Administrator Extension for Management Framework 8.1.0 or lower

Purpose: To upgrade from an earlier release of GAX to the latest release of GAX for Management Framework 8.1.0 or lower.

Start of procedure

1. Stop the instance of GAX that you intend to upgrade.
2. On the target machine, run the GAX installer for the release to which you want to upgrade. The installer copies the binary file to the target directory that was defined during installation, and also copies all of the required files to the target directory. For more details, refer to Procedure: Installing

Genesys Administrator Extension server on a Linux host, on page 190 or Procedure: Installing Genesys Administrator Extension server on a Windows Server host, on page 191.

3. Execute all applicable database upgrade scripts, if necessary. To determine if you have to apply any database scripts, check the `resources/sql_scripts` folder in the target directory of the installation.

Note: GAX database schema version numbers are not necessarily synchronized with the version numbers of plug-ins, nor will they necessarily match the GAX release number. For example, your version of GAX might be 8.1.310.36 and your database schema version might be 8.1.301.01.

Perform one of the following actions, depending on your server installation:

- (Oracle only) Run all of the database upgrade scripts from the previous version. To determine if you have to apply any database scripts, check the `resources/sql_scripts` folder in the target directory of the installation.

  For example, if you intend to upgrade to the latest database version, you must execute the following SQL scripts in this order:

  - `gax_core_upgrade_db_8.1.201.25_to_8.1.301.01_ora.sql`
  - (For Solution Deployment only) `gax_asd_upgrade_db_8.1.301.01_to_8.1.401.01_ora.sql`
  - (For Operational Parameter Management only) `gax_opm_upgrade_db_8.1.201.15_to_8.1.301.01_ora.sql`

- (Microsoft SQL only) Run all of the database upgrade scripts from the previous version. To determine if you have to apply any database scripts, check the `resources/sql_scripts` folder in the target directory of the installation.

  For example, if you intend to upgrade to the latest database version, you must execute the following SQL scripts in this order:

  - `gax_core_upgrade_db_8.1.201.25_to_8.1.301.01_mssql.sql`
  - (For Solution Deployment only) `gax_asd_upgrade_db_8.1.301.01_to_8.1.401.01_mssql.sql`
  - (For Operational Parameter Management only) `gax_opm_upgrade_db_8.1.201.15_to_8.1.301.01_mssql.sql`

- (PostgreSQL only) Run all of the database upgrade scripts from the previous version. To determine if you have to apply any database scripts, check the `resources/sql_scripts` folder in the target directory of the installation.

  For example, if you intend to upgrade to the latest database version, you must execute the following SQL script:

  - `gax_asd_upgrade_db_8.1.301.01_to_8.1.401.01_postgres.sql`

4. As a local user on the host machine, whether in person or via a remote desktop connection, launch GAX and run Setup Mode. Follow the instructions in the procedure Procedure: Deploying Genesys Administrator Extension, on page 189.
5. (Optional) You can delete the previous GAX `Application` object after you have verified that the new release is working correctly.

Notes:
- Role privileges must be renewed if the application type is changed. Genesys stores role privileges that are associated with the application type to which they apply, but since GAX is associated with `Genesys Administrator Server` in 8.1.1 Management Frameworks (for GAX 8.1.2 and higher), not `Genesys Generic Server`, the role privileges must be set using the correct type.
- Files that have version numbers prior to the ones from which you upgraded do not have to be executed.
- You must log in to the database schema as a GAX user and run the commands inside the SQL scripts as commands for the database.
- If you are installing GAX for the first time or upgrading from release 8.1.x to 8.1.4, when you execute the SQL upgrade scripts, make sure that the scripts are properly committed. If your client application has auto-commit switched off, you might have to add the following line(s) to the scripts:

  a. For Oracle:
  ```
  commit;
  ```
  b. For MS SQL:
  ```
  BEGIN TRANSACTION;
  COMMIT TRANSACTION;
  ```
  c. For PostgreSQL:
  ```
  commit;
  ```

Procedure:
Deploying Genesys Administrator Extension

Purpose: To use Setup Mode to deploy Genesys Administrator Extension 8.1.4.

Start of procedure

1. Connect to GAX locally by opening a supported web browser and navigating to the location of your GAX host (for example: http://localhost:8080/gax/).

Note: Setup Mode is accessible only through a local connection. You cannot use Setup Mode if you connect remotely to the GAX host.

2. Select the `Username` field and enter `root`. By default, there is no password.
3. Click `Log In`.
4. Choose `Connect to an Existing Deployment`.
5. You must provide configuration information about the existing Management Framework deployment. This screen pre-populates with existing details about the deployment, such as:
   - `Primary Configuration Server Host`
   - `Port` number
   - `Default Client Application Name`
   - `Username`
   - `Password`

   If there are any errors, GAX prompts you to re-enter the configuration information.
6. Click `Next`.
7. Perform one of the following actions:
   - Select the GAX `Application` object to be associated with the existing instance. The list includes all objects of type `CfgApplications` with a subtype of either `CFGGenesysAdministratorServer` or `CFGGenesysGenericServer`. If the associated `Host` object has the same host names or IP addresses as the current GAX instance, it is highlighted as `recommended`.
   - Create a new `Application` object. You must provide the following information:
     - `Administrator Extension Application Object Name`—Enter the name of the `Application` object to create.
     - `Template`—Select the application template to use.

   If the `Host` object does not exist, it is automatically created.

8. Click `Next`.
9. GAX prompts you to enter configuration information for the GAX database. This screen pre-populates with existing details that might be stored in Configuration Server. You must provide the following configuration information:
   - `Database Server Type`
   - `Database Host`
   - `Port` (numeric only)
   - `Database Name`
   - `Username`
   - `Password`
10. Click `Next`.
11. GAX verifies the database version and creates (or updates) the database access configuration. If an error occurs, an error message displays and you can either cancel or restart the deployment process.
12. Click `Finish`.
13. GAX restarts to finish the setup operation. When it is done, GAX displays the login screen and you can log in to GAX.

End of procedure

Related Procedures

These procedures are not required to upgrade Genesys Administrator Extension but might contain useful reference information.

Install Genesys Administration Extension Server

Refer to the Procedure: Installing Genesys Administrator Extension server on a Linux host, on page 190 or the Procedure: Installing Genesys Administrator Extension server on a Windows Server host, on page 191.

Procedure: Installing Genesys Administrator Extension server on a Linux host

Prerequisites

- The environment variable for `JRE_HOME` has been configured (see the *Genesys Administrator Extension 8.1.4 Deployment Guide)*.

Purpose: To install the Genesys Administrator Extension application on a Linux host.

Start of procedure

1. Copy the IP to the host machine.
2. Navigate to the folder to which you copied the IP, and change the permissions of the installation file by entering the following command:
   `chmod 755 install.sh`
3. Run the installation file to extract and copy the necessary files by entering the following command:
   `./install.sh`

   Note: When you install Genesys Administrator Extension, you might receive the following error message that indicates that installation was unsuccessful:

   ```
   Unable to find configuration information. Either you have
   not used configuration wizards and the GCTISetup.ini file
   was not created or the file is corrupted.
   ```

   Ignore this message; Genesys Administrator Extension was installed successfully.
4. Navigate to the folder in which you installed GAX, and run the `gax_startup.sh` file.

End of procedure

Procedure: Installing Genesys Administrator Extension server on a Windows Server host

Prerequisites

- The environment variable for `JRE_HOME` has been configured (see the *Genesys Administrator Extension 8.1.4 Deployment Guide*).

Purpose: To install the Genesys Administrator Extension application on a Windows Server host.

Start of procedure

1. Copy the IP to the host machine.

2. Run the installation file to extract and copy the necessary files by entering the following command:

   ```
   ./setup.exe
   ```

   If there is an existing installation of GAX on the host, the installer will display a dialog box that prompts you to confirm whether or not you want to maintain the existing installation.

3. Navigate to the folder in which you installed GAX and run the `gax_startup.bat` file.

End of procedure

Migration to 8.1.3

This section contains the prerequisites and procedures that are needed to upgrade to Genesys Administrator Extension 8.1.3.

Prerequisites

Genesys Administrator Extension requires Management Framework. To use the Role-based Access Control feature, Configuration Server 8.1.x is required.

Notes:
- A new application type, `Genesys Administrator Server`, was introduced in Genesys Framework release 8.1.1 for use with Genesys Administrator Extension release 8.1.2 or higher. Previous versions of GAX do not support this new application type and must use the `Genesys Generic Server` application type.
- To avoid issues with role assignments, you should upgrade the application, metadata, and the roles to the new type when you migrate to GAX 8.1.3 or perform a fresh install.

The computer on which you install Genesys Administrator Extension must be capable of acting as a web application server, and must be running the following:

- Red Hat Enterprise Linux 5.5 (64-bit) - Enterprise Edition, with `Updates from RHN` enabled;

  Or,

  Windows Server 2008 R2, with 64-bit applications running natively on a 64-bit OS.
- Java 6 Runtime (JRE) from Oracle. See the *Framework 8.1 Genesys Administrator Extension Deployment Guide* for information about obtaining and installing Java, if necessary.

- Tomcat 6.0.37 from Apache. When setting up Tomcat, Genesys strongly recommends that you enable gzip compression for responses. See the *Framework 8.1. Genesys Administrator Extension Deployment Guide* for more information.

In addition, each module of Genesys Administrator Extension might have additional prerequisites. Refer to the *Framework 8.1 Genesys Administrator Extension Deployment Guide* for more information.

Browser Requirements

Genesys Administrator Extension includes a web-based GUI with which you can manage Genesys applications and solutions. It is compatible with the following browsers:

- Microsoft Internet Explorer 7.x, 8.x, and 9.x
- Mozilla Firefox 3.5 or higher
- Safari 5 or higher
- Chrome 8 or higher

Note: Genesys Administrator Extension supports all major browsers, but is optimized for Chrome. Users of Internet Explorer 7.x might experience rendering issues in the user interface.

Genesys Administrator Extension is designed to be viewed at a minimum screen resolution of 1024x768, although higher resolutions are recommended. If you are working in 1024x768 mode, maximize your browser to ensure that you can see all of the interface.

Required Permissions and Role Privileges

Genesys Administrator Extension uses a permission-based mechanism and a role-based access control system to protect your data. Before installing and using Genesys Administrator Extension, ensure that all users have the necessary access permissions and role privileges to do their work. The following are examples of scenarios that require permissions:

- A Tenant user must have write (`Update`) permission on his or her `User` object to set and save his or her User Preferences in Genesys Administrator Extension.
- To log in to Genesys Administrator Extension, a user must have `Read` permission on his or her `User` object, `Read` and `Execute` permissions on his or her `Tenant` object, and `Read` and `Execute` permissions on the Genesys Administrator Extension client `Application` object. These permissions are usually assigned by adding the users to access groups.

There are no role privileges required to log in to GAX; however, GAX-specific functions may require additional role privileges to be enabled. Refer to the *Framework 8.1 Genesys Administrator Extension Deployment Guide* for more information about role privileges that are specific to Genesys Administrator Extension.

Deploying Multiple Instances of GAX with Shared Resources

You can install multiple instances of GAX to support both High Availability (HA) and load balancing. You can also install multiple instances of GAX to take advantage of the GAX plug-in architecture. Each instance of GAX can be deployed with a different combination of plug-ins.

In either scenario, the multiple instances of GAX share the same data resources, such as Configuration Server, the GAX database, and audio resources, but are executed independently by different users on different hosts.

Minimum Required Firewall Permissions and Settings for GAX Deployment

Your firewall must allow incoming connections on the Tomcat http and https ports (for example, 8080, 80, 433, and so on, based on your setup). Tomcat can listen on more than one port at once.

You must allow outgoing connections to allow GAX to establish connections; however, you can restrict the connections to networks that contain the following components:

- GDA hosts
- Databases
- Genesys configuration layer servers: Configuration Server, Message Server, and Solution Control Server

Minimum Required File System Permissions and Settings for GAX Deployment

The GAX operating system user is the user that runs the GAX process. The GAX operating system user must have the following permissions:

- Write permission on the log file folder
- Read/write access to the folder configured for ARM
- Be the owner of the Tomcat folder

Note: If Tomcat was extracted from the `.tar` file, the permissions noted in this list should already be correct.

Enabling UTF-8 Encoding (for Oracle Databases)

Starting in release 8.1.3, Genesys Administrator Extension optionally supports UTF-8 character encoding for Oracle databases. This functionality requires Configuration Server 8.1.2 or later.

For more information, refer to the *Framework 8.1 Genesys Administrator Extension Deployment Guide*.

Migration Procedure

After you have performed all necessary upgrades to your operating system, Management Framework, and web server software, use the procedure "Upgrading to Genesys Administrator Extension 8.1.3 for Management Framework 8.1.1 or higher" or the procedure "Upgrading to Genesys Administrator Extension 8.1.3 for Management Framework 8.1.0 or lower" to migrate to Genesys Administrator Extension 8.1.3.

Procedure: Upgrading to Genesys Administrator Extension 8.1.3 for Management Framework 8.1.1 or higher

Purpose: To upgrade from an earlier release of GAX to GAX 8.1.3 for Management Framework 8.1.1 or higher.

Start of procedure

1. Stop the instance of GAX that you want to upgrade.
2. Ensure that Management Framework, Configuration Server, and Genesys Administrator are all upgraded to versions that are compatible with GAX 8.1.3 before proceeding. Refer to the *Framework 8.1 Genesys Administrator Extension Deployment Guide* for more information.
3. (This step applies only to instances that use GAX `Application` object of type `Genesys Generic Server`.) Create and configure the configuration objects that are required for GAX 8.1.3 by using Genesys Administrator to perform the following steps:
   a. Open your existing GAX `Application` object of type `Genesys Generic Server` in edit mode.
   b. Click the `Options` tab.
   c. Click `Export` to save your configured GAX options to a file on your local file system of type `CONF/CFG`.

d. Create and configure a new Server `Application` object for Genesys Administrator Extension of type `Genesys Administrator Server` by following Step 4 of Procedure: Creating the necessary configuration objects for Genesys Administrator Extension, on page 200.

i. Ensure that you follow the steps that pertain to the use of Management Framework Configuration Server 8.1.1, or higher.

ii. Replicate any configuration that you wish to add to your newly created `Application` object by referring to the GAX `Application` object of your previous version.

iii. Click the `Options` tab.

iv. Click `Import` and specify the `CONF/CFG` file that you previously created. Select `No` to not overwrite any existing options.

v. (Optional) Create a DAP that points to the Log Database (refer to Step 3 of Procedure: Creating the necessary configuration objects for Genesys Administrator Extension, on page 200 for more information). Set the role of the DAP to auditing. Enable auditing by setting the value of the `general/auditing` option to `true`. Add the DAP to your GAX connections. On the `Options` tab of the DAP, in the `GAX` section, configure the `role` option with the value `auditing`.

4. On the target machine, run the GAX installer for the release to which you want to upgrade. The installer copies the binary file to the Tomcat instance that was defined during installation and copies all of the required files to the target directory. For more details, refer to the Procedure: Installing Genesys Administrator Extension server on a Linux host, on page 206 or Procedure: Installing Genesys Administrator Extension server on a Windows Server 2008 host, on page 207.

5. Remove or deactivate all old GAX objects. You can use only one GAX `Application` object to point to one physical GAX instance. If you want more than one GAX Application object to point to a single machine, you must install separate physical GAX instances on the same machine, each with a separate, independent, Tomcat installation.

6. Perform one of the following actions, depending on your server installation:

- (Oracle only) Run all of the database upgrade scripts from the previous version. To determine if you have to apply any database scripts, check the `resources/sql_scripts` folder in the target directory of the installation.

  For example, if you have release 8.1.201.25 running and you intend to upgrade to release 8.1.300.XX, you must execute the following SQL scripts in this order:

  - `gax_core_upgrade_db_8.1.201.25_to_8.1.300.XX_ora.sql`
  - (For Solution Deployment only) `gax_asd_upgrade_db_8.1.201.15_to_8.1.300.XX_ora.sql`

  - (For Operational Parameter Management only)
    `gax_opm_upgrade_db_8.1.201.15_to_8.1.300.XX_ora.sql`
- (Microsoft SQL only) Run all of the database upgrade scripts from the previous version. To determine if you have to apply any database scripts, check the `resources/sql_scripts` folder in the target directory of the installation.

  For example, if you have release 8.1.201.25 running and you intend to upgrade to release 8.1.300.XX, you must execute the following SQL scripts in this order:
  - `gax_core_upgrade_db_8.1.201.25_to_8.1.300.XX_mssql.sql`
  - (For Solution Deployment only)
    `gax_asd_upgrade_db_8.1.201.15_to_8.1.300.XX_mssql.sql`
  - (For Operational Parameter Management only)
    `gax_opm_upgrade_db_8.1.201.15_to_8.1.300.XX_mssql.sql`

Notes:
- Files that have version numbers prior to the ones from which you upgraded do not have to be executed.
- GAX database schema version numbers are not necessarily synchronized with the version numbers of plug-ins, nor will they necessarily match the GAX release number.
- You must log in to the database schema as a GAX user and run the commands inside the SQL scripts as commands for the database.
- If you are installing GAX for the first time or upgrading from release 8.1.x to 8.1.3, when you execute the SQL upgrade scripts, make sure that the scripts are properly committed. If your client application has auto-commit switched off, you might have to add the following line(s) to the scripts.

  a. For Oracle:
  ```
  commit;
  ```
  b. For MS SQL:
  ```
  BEGIN TRANSACTION;
  COMMIT TRANSACTION;
  ```

7. (Optional) You can delete the previous GAX `Application` object after you have verified that the new release is working correctly.

End of procedure

Procedure: Upgrading to Genesys Administrator Extension 8.1.3 for Management Framework 8.1.0 or lower

Purpose: To upgrade from an earlier release of GAX to GAX 8.1.3 for Management Framework 8.1.0 or lower.

Start of procedure

1. Stop the instance of GAX that you intend to upgrade.
2. On the target machine, run the GAX installer for the release to which you want to upgrade. The installer copies the binary file to the Tomcat instance that was defined during installation, and also copies all of the required files to the target directory. For more details, refer to the Procedure: Installing Genesys Administrator Extension server on a Linux host, on page 206 or Procedure: Installing Genesys Administrator Extension server on a Windows Server 2008 host, on page 207.
3. Perform one of the following actions, depending on your server installation:
   - (Oracle only) Run all of the database upgrade scripts from the previous version. To determine if you have to apply any database scripts, check the `resources/sql_scripts` folder in the target directory of the installation.

     For example, if you have release 8.1.201.25 running and you intend to upgrade to release 8.1.300.XX, you must execute the following SQL scripts in this order:
     - `gax_core_upgrade_db_8.1.201.25_to_8.1.300.XX_ora.sql`
     - (For Solution Deployment only) `gax_asd_upgrade_db_8.1.201.15_to_8.1.300.XX_ora.sql`
     - (For Operational Parameter Management only) `gax_opm_upgrade_db_8.1.201.15_to_8.1.300.XX_ora.sql`
   - (Microsoft SQL only) Run all of the database upgrade scripts from the previous version. To determine if you have to apply any database scripts, check the `resources/sql_scripts` folder in the target directory of the installation.

     For example, if you have release 8.1.201.25 running and you intend to upgrade to release 8.1.300.XX, you must execute the following SQL scripts in this order:
     - `gax_core_upgrade_db_8.1.201.25_to_8.1.300.XX_mssql.sql`
     - (For Solution Deployment only) `gax_asd_upgrade_db_8.1.201.15_to_8.1.300.XX_mssql.sql`
     - (For Operational Parameter Management only) `gax_opm_upgrade_db_8.1.201.15_to_8.1.300.XX_mssql.sql`

Notes:
- Role privileges must be renewed if the application type is changed. Genesys stores role privileges that are associated with the application type to which they apply, but since GAX is associated with `Genesys Administrator Server` in 8.1.1 Management Frameworks (for GAX 8.1.2 and higher), not `Genesys Generic Server`, the role privileges must be set using the correct type.
- Files that have version numbers prior to the ones from which you upgraded do not have to be executed.
- GAX database schema version numbers are not necessarily synchronized with he version numbers of plug-ins, nor will they necessarily match the GAX release number.
- You must log in to the database schema as a GAX user and run the commands inside the SQL scripts as commands for the database.
- If you are installing GAX for the first time or upgrading from release 8.1.x to 8.1.3, when you execute the SQL upgrade scripts, make sure that the scripts are properly committed. If your client application has auto-commit switched off, you might have to add the following line(s) to the scripts:

  a. For Oracle:
  ```
  commit;
  ```
  b. For MS SQL:
  ```
  BEGIN TRANSACTION;
  COMMIT TRANSACTION;
  ```

4. (Optional) You can delete the previous GAX `Application` object after you have verified that the new release is working correctly; however, you can choose to maintain both versions simultaneously.

End of procedure

Upgrade Configuration Layer Objects

- Connect the GAX Server object to Message Server to write audit logs.
- Create a DAP that points to the Log Database (refer to Step 3 on page 201 for more information). Set the role of the DAP to auditing. Enable auditing by setting the value of the `general/auditing` option to `true`. Add the DAP to your GAX connections. In the `Options` tab of the DAP, in the `GAX` section, configure the `role` option with the value `auditing`.

Related Procedures

These procedures are not required to upgrade Genesys Administrator Extension but might contain useful reference information.

Procedure: Creating the necessary configuration objects for Genesys Administrator Extension

Purpose: To create the following configuration objects required by Genesys Administrator Extension:

- `Host` object for the computer on which Genesys Administrator Extension is to be installed (Step 1 on page 201)
- `Host` object for the computer on which the database to be used by Genesys Administrator Extension will be located (Step 2 on page 201)
- `Database Access Point` to provide database access to the database to be used by Genesys Administrator Extension (Step 3 on page 201)
- `Application` object for Genesys Administrator Extension with a connection to Configuration Layer to retrieve configuration information (Step 4 on page 202)
- `Application` object to provide the capability to log in to Genesys Administrator Extension (Step 5 on page 204)

Notes:
- All tasks in this procedure are completed by using Genesys Administrator or a similar configuration utility to create the necessary configuration objects in the Configuration Database. This procedure assumes that you are using Genesys Administrator.
- In this procedure, use the instructions that are provided in *Genesys Administrator Help* or the *Framework 8.x Deployment Guide*, and add the object-specific configuration requirements listed here.

Prerequisites

- Management Framework 8.0.0 or higher is installed and running. You must have Configuration Server 8.0.300.42 or higher.
- If you are using Configuration Server 8.1.1 or higher, you must use Genesys Administrator 8.1.2 or higher, as previous versions do not support the GAX application type for configuring role privileges.
- Genesys Administrator 8.1 or higher is installed and running.

Start of procedure

1. Create and configure a `Host` object for the computer on which Genesys Administrator Extension will be installed, as follows:
   a. Use the instructions in *Genesys Administrator Help* or the *Framework 8.x Deployment Guide* to create and configure a `Host` object.
   b. On the `Configuration` tab, specify a Solution Control Server `Application` object.
   c. Click `Save & Close` to save the new object and its configuration.
2. Use the instructions in *Genesys Administrator Help* or the *Framework 8.x Deployment Guide* to create and configure a `Host` object for the computer on which the Oracle or Microsoft SQL Server 2008 R2 database to be used by Genesys Administrator Extension will be installed.

> **Note:** When using Genesys Administrator in a load-balanced environment, make sure that all nodes have shared-access to the application metadata. See the *Genesys Administrator Deployment Guide* for details about how to set this up.

3. Use Genesys Administrator to create and configure a Database Access Point (DAP) `Application` object, which is necessary for connectivity to either the Oracle database or the Microsoft SQL Server 2008 R2 database that will be used by Genesys Administrator Extension, as follows:
   a. Use the instructions in the *Framework 8.x Deployment Guide* to create and configure a DAP `Application` object.
   b. Open the `Configuration` tab.
   c. In the `Server Info` section, enter the following information:
      i. In the `Tenants` list, add the Environment Tenant.
      ii. In the `Host` field, select the `Host` object on which the database is to be installed, and that was configured in Step 2. If you do not use a non-standard port, enter `1521` for an Oracle database or `1433` for a Microsoft SQL Server 2008 database.
   d. In the `DB Info` section, enter the following:
      i. In the `Connection Type` field, select `JDBC`.
      ii. In the `Role` field, select `Main`.
      iii. In the `Debug` field, select `false`.
      iv. In the `JDBC Query Timeout` field, enter `15`.
      v. In the `DBMS Type` field, select `Oracle` for an Oracle database or `mssql` for a Microsoft SQL Server 2008 database.
      vi. In the `Database Name` field, enter the Solution name of the database instance.
      vii. In the `User Name` field, enter the user name required to access Oracle or Microsoft SQL Server 2008 R2.

viii. In the User Password field, enter the password required for the user name specified in the previous step to access Oracle or Microsoft SQL Server 2008 R2.

ix. In the Case Conversion field, select any.

e. Open the Options tab and complete the following steps:

i. Create a new section called GAX.

ii. In this new section, add the configuration option role and set its value to main. This identifies this DAP as the one for the main database that is used by Genesys Administrator Extension.

f. Click Save & Close to save the new object and its configuration.

4. Create and configure a Server Application object for Genesys Administrator Extension, as follows:

a. Import the Application Template object for Genesys Administrator Extension. Refer to *Framework 8.1 Genesys Administrator Help* for detailed instructions.

i. Upload one of the following files from the installation package, depending on which version of Management Framework you are running:

— For Configuration Server up to version 8.1.0: Genesys_Administrator_Extension_MF810_812.apd

— For Configuration Server from version 8.1.1 on: Genesys_Administrator_Extension_812.apd

ii. Import the XML metadata file, which contains the GAX privilege information and default settings, by clicking Import Metadata, then navigate to the folder in which the application template was deployed. There are two templates available, depending on which version of Management Framework you are running:

— For Configuration Server up to version 8.1.0: Genesys_Administrator_Extension_MF810_812.xml

— For Configuration Server from version 8.1.1 on: Genesys_Administrator_Extension_812.xml

iii. Click Save & Close to save the new object.

b. Use the instructions in the *Framework 8.x Deployment Guide* to create and configure an Application object by using the template imported in the previous step and on the Host object configured in Step 1 on page 201. This new object will appear as being of type Generic Genesys Server if you are running Management Framework <=8.1.0 and of type Genesys Administrator Server if you are running Management Framework >8.1.0.

c. Open the Configuration tab.

d. In the General section, in the list of Connections, add connections to the following components:

- Primary Solution Control Server

- Main DAP (configured in Step 3 on page 201)
- Auditing DAP. This should be linked to the database where the auditing data will be written. The configuration (refer to Step 3 on page 201) is the same as the Main DAP; however, the Role property of the Auditing DAP should be set to the value `auditing` instead of the value `main`.

Note: Both the Auditing DAP and the LRM DAP are not mandatory for every installation.

If you configure GAX to use auditing, then you must have a DAP configured. If you remove the LUR from the installation, the DAP is not required.

- LRM DAP. This should be linked to the database that will hold the LRM data that is displayed by License Usage Reporting. The configuration (refer to Step 3 on page 201) is the same as the Main DAP; however, the Role property of the LRM DAP should be set to the value `lrm` instead of the value `main`.

e. In the `Server Info` section, enter the following information:

i. In the `Working Directory` field, enter the path to your working directory.

— (Linux) For example: `/home/gcti/apache-tomcat-6.0.20/bin/`.

— (Windows Server 2008) For example:
`C:\GCTI\Tomcat6_GAX_812\bin`

ii. In the `Command Line` field, enter the following:

— Linux:
`./gax_startup.sh`

— Windows Server 2008:
`.\gax_startup.bat`

iii. In the Command Line Arguments field, enter the following (all on one line):
`-host <Configuration Server name or IP address> -port <Configuration Server port> -app <GAX Generic Server Application name>`

where `<GAX Application name>` is the name of the object being created.

Note: **Limitation:**

If Configuration Server has several independent ports configured, the port that GAX should use cannot be freely chosen if GAX is started by Management Framework tools such as Solution Control Server, Genesys Administrator, or Solution Control Interface.

In that case, GAX will always connect to the port that Solution Control Server uses to connect to Configuration Server.

Workaround:

If GAX should not use the same Configuration Server port as Solution Control Server, GAX should not be started by using Management Framework tools. GAX should only be started manually or as a service.

f. Select the host object where GAX is to be deployed.

g. Specify the listening port by entering 8080 (the typical value for Genesys; you can also specify another port) in the Listening Port field. **Note:** Setting this port value does not change the port that is used by GAX; it is overridden by Tomcat configuration.

h. On the `Options` tab, verify or update the name of your client object (to be created in Step 5 on page 204) given by the following option:

`general.client_app_name=<name>`

i. Click `Save & Close` to save the new object and its configuration.

Note: The creation of a Client is optional. The default client will be used in a standard installation (`general.client_app_name=default`).

Perform the next step only if you need to allow access to GAX for users that should not be able to access Genesys Administrator.

5. Create and configure an `Application` object to allow users to log in to Genesys Administrator Extension. The name of this object must be exactly the same as that specified in Step 4h above. All users must have Read/Execute permissions for this `Application` object.

Use the instructions in the *Framework 8.x Deployment Guide* to create and configure an Application object by using the template Configuration Manager.

This object acts as a client application for the Genesys Administrator Extension server.

6. Configure GAX logging by using the Genesys Log Wizard from Genesys Administrator or from Genesys Solution Control Interface. The Log Wizard creates a set of configuration options in the `log` section of the GAX Server application object.

   (Optional) You can also create the log options manually by using the values in Table 22. See the *Framework 8.1 Genesys Administrator Extension Deployment Guide* for more information about these values.

Table 22: GAX Logging Value

Option	Description	Value	Required	Default
all	Defines the types of logging to be executed as a comma-separated list	stdout, <filename>	Yes	stdout
verbose	Defines the log level	all, trace, interaction, standard, none	No	standard
segment	Defines the maximum file size for file logging	<file size in KB>	No	“”
expire	Number of backup log files to be maintained	<number of files >	No	“”

7. Set up a user on the host to create a new user named `gcti` and a group named `gcti`, which is the primary group for the new user, and set `/bin/bash` as the default shell. This user will be used to run the Tomcat service and to run LCA (unless you have configured LCA to run under the root or another user). Refer to the *Genesys Administrator 8.1 Help* for information about creating a new group and a new user.

End of procedure

Install Genesys Administration Extension Server

Refer to the Procedure: Installing Genesys Administrator Extension server on a Linux host, on page 206 or the Procedure: Installing Genesys Administrator Extension server on a Windows Server 2008 host, on page 207.

Procedure: Installing Genesys Administrator Extension server on a Linux host

Prerequisites

- The `Application` object for Genesys Administrator Extension server exists (see Step 4 on page 202).
- The environment variable for `JRE_HOME` has been configured (see Chapter 2, "Setting up the Host for Genesys Administrator Extension Server" in the *Framework 8.1 Genesys Administrator Extension 8.1 Deployment Guide)*.

Purpose: To install the Genesys Administrator Extension application on a Linux host.

Start of procedure

1. Copy the IP to the host machine.
2. Navigate to the folder to which you copied the IP, and change the permissions of the installation file by entering the following command:
   ```
   chmod 755 install.sh
   ```
3. Run the installation file to extract and copy the necessary files by entering the following command:
   ```
   ./install.sh
   ```

   Note: When you install Genesys Administrator Extension, you might receive the following error message that indicates that installation was unsuccessful:

   ```
   Unable to find configuration information. Either you have
   not used configuration wizards and the GCTISetup.ini file
   was not created or the file is corrupted.
   ```

   Ignore this message; Genesys Administrator Extension was installed successfully.

4. Enter information as prompted by the installation file, as follows:
   a. Enter the name of this host machine, or press `Enter` to select the default.
   b. Enter the name of the host where Configuration Server is installed.
   c. Enter the port number used by Configuration Server.
   d. Enter the username and password used to access Configuration Server.
   e. Select `n` so as not to use Client Side Port Option (the listening port of the application; refer to *Genesys 8.0 Security Deployment Guide*).

f. When prompted to select which application to install, enter the number associated with the Genesys Administrator Extension server object.

The following prompt is displayed:

"Press ENTER to confirm /opt/genesys/gax as the destination directory or enter a new one =>'

You can specify the GAX_HOME folder here:
GAX_HOME=/home/gcti/gax

By default, the installation puts a startup and a setenv script in the Tomcat bin/ directory and the Genesys Administrator Extension application in the Tomcat webapps/ directory. Additional resources and the database creation script are installed in the folder given by the GAX_HOME environment variable (see Chapter 2, "Setting up the Host for Genesys Administrator Extension Server" in the *Framework 8.1 Genesys Administrator Extension 8.1 Deployment Guide*). Press y to accept this, or press n to cancel setup.

Note: To start GAX manually by using gax_startup.bat, you might have to modify this file by replacing the following line:

```
set GAX_CMD_LINE_ARGS=%*
```

with the following command (use arguments that match your system):

```
set GAX_CMD_LINE_ARGS=-host confserv -port 2020 -app
gaxappobjname
```

End of procedure

Procedure: Installing Genesys Administrator Extension server on a Windows Server 2008 host

Prerequisites

- The Application object for Genesys Administrator Extension server exists (see Step 4 on page 202).
- The environment variable for JRE_HOME has been configured (see Chapter 2, "Setting up the Host for Genesys Administrator Extension Server" in the *Framework 8.1 Genesys Administrator Extension 8.1 Deployment Guide*).

Purpose: To install the Genesys Administrator Extension application on a Windows Server 2008 host.

Start of procedure

1. Copy the IP to the host machine.
2. Run the installation file to extract and copy the necessary files by entering the following command:

   ```
   ./setup.exe
   ```

   If there is an existing installation of GAX on the host, the installer will display a dialog box that prompts you to confirm whether or not you want to maintain the existing installation.

   If there is not an existing installation of GAX on the host, then you must specify the location of the Tomcat folder (see Chapter 2, "Installing Tomcat" in the *Framework 8.1 Genesys Administrator Extension 8.1 Deployment Guide*).
3. Enter information as prompted by the installation file, as follows:
   a. Enter the name of the host where Configuration Server is installed.
   b. Enter the port number used by Configuration Server.
   c. Enter the username and password used to access Configuration Server.

Note: To start GAX manually by using `gax_startup.bat`, you might have to modify this file by replacing the following line:

```
set GAX_CMD_LINE_ARGS=%*
```

with the following command (use arguments that match your system):

```
set GAX_CMD_LINE_ARGS=-host confserv -port 2020 -app
gaxappobjname
```

End of procedure

Changes in Genesys Administrator Extension

This section describes major changes in Genesys Administrator Extension functionality and architecture and in configuration options for Genesys Administrator Extension.

Component Changes for Genesys Administrator Extension

Table 23 on page 209 summarizes all high-level component differences for Genesys Administrator Extension from release 8.1.2 through 8.5.0, with the most recent changes listed first. For detailed information about new features and functions that are available in Genesys Administrator Extension 8.5.0, refer to the *Genesys Administrator Extension Deployment Guide*.

Table 23: Genesys Administrator Extension Component Changes

Type of Change	Change Occurred in Release	Details
Core Enhancements	8.5.0	• Online Help—The context-sensitive Online Help system delivers the latest information about GAX and its features. Refer to the Additional Information section of this Release Note for more information about using this feature. • Command Line Console—Use the command line to add, delete, and query solution definitions (SPDs) and installation packages (IPs), as well as execute SPDs. • System Monitoring—Dashboards help you to easily monitor and manage Alarms, Hosts, Solutions, Applications, and processes that you have deployed for your contact center. You can also use plug-ins to expand dashboard functionality to monitor statistics and other reporting data.
Feature Enhancements	8.5.0	• Log Configuration—Use GAX's simplified interface to configure logs to monitor Applications, Hosts, and Solutions. • Consolidated Agent Management—The Agents window consolidates all aspects of agent management into a streamlined interface. From one window, you can: ◆ Create agents and their associated objects such as Agent Logins, DNs, and Places. ◆ Edit agent information. ◆ Copy, delete, and enable/disable agents.

Table 23: Genesys Administrator Extension Component Changes

Type of Change	Change Occurred in Release	Details
Feature Enhancements (cont.)	8.5.0 (cont.)	• Audio Resource Management—The Audio Resource Management interface has been overhauled to enable you to quickly upload and manage audio resources and personalities.
Core enhancements	8.1.4	• Setup Mode can set up new instances of GAX to connect to an existing Management Framework deployment. You can also use Setup Mode to install and configure new Genesys deployments. In the latter scenario, Setup Mode installs GAX, Configuration Server, and Database Server. After these components are installed, you can use the installation package (IP) management features of GAX to deploy entire Genesys installations. • You can now add custom external links to the GAX Navigation Bar. • Users that are created by using GAX 8.1.4 automatically receive Read and Update permissions for their User objects, enabling them to save User Preferences in GUI-based programs, such as GAX or Interaction Workspace. • Added support for: ◦ Red Hat Enterprise Linux 6.0 (64-bit) - Enterprise Edition ◦ Windows Server 2012 (64-bit) ◦ Oracle 12c databases ◦ Microsoft SQL Server 2012 databases ◦ Java 7 Runtime (JRE) Refer to the *Genesys Administrator Extension 8.1.4 Deployment Guide* for additional information. • Support for the latest web browsers. Refer to the Genesys Administrator Extension Deployment Guide for additional information. • GAX now uses an embedded Jetty instance as the web application server; as a result, Tomcat is no longer required to use GAX. If you choose to continue using Tomcat, refer to the *Genesys Administrator Extension Deployment Guide* for additional information.
Feature enhancements	8.1.4	Configuration Object Management offers the following new features: • Use Configuration Manager to create and manage configuration objects, such as user accounts, roles, DNs, Places, and more. • Quickly find objects by using the Quick Filter or Tenant Directory fields.

Table 23: Genesys Administrator Extension Component Changes

Type of Change	Change Occurred in Release	Details
Core enhancements	8.1.3	The following core features have been added to GAX: • Improved user interface for managing and authorizing plug-ins • Throttling of bulk updates to Configuration Server • Ability to set User Preferences and System Preferences (User Preferences take precedence) for settings such as Language and Time Zone
Feature enhancements	8.1.3	Account Management is a new plug-in that offers the following features: • Templates for creating Agents or User Accounts • Set or reset passwords for single or multiple users • Improved user interface for managing User Accounts and Skills • Multiple supervisors can be added to each Agent Group • Improved role management • Improved Capacity Rules • Improved permissions management • Creation of Bulk Change Sets for manipulating several Configuration Objects simultaneously • Configure permissions for each object by using the Access Permissions panel Operational Parameter Management has been improved to support the following capabilities: • Multiple configuration object types can be selected simultaneously • Selection of list objects to use multiple Parameter Groups with a single strategy • Add Sections to aid in visually identifying Parameters within a Parameter Group • Control access to Parameter Groups by tenant • Use Schedule as a Parameter type • Optional Parameters that do not require values to be set • Synchronize Parameter Groups after a change to the Parameter Group Template • Restrict access to Parameter Groups based on the access control settings of the Configuration Transaction object

Table 23: Genesys Administrator Extension Component Changes

Type of Change	Change Occurred in Release	Details
Feature enhancements (cont.)	8.1.3 (cont.)	Solution Deployment has been improved to support the following capabilities: • Deploy Genesys components that support silent installs • Upgrade, rollback or uninstall deployed components • Addition of a software repository • Use Defined Privileges to manage access to components
User interface enhancements	8.1.3	The user interface has been redesigned to provide a more natural layout and better visibility of related tasks and items. The improvements include: • Resizeable, collapsible, and expandable panels • Current panels that are maintained when switching between objects • Improved user interface for managing modules and plug-ins • Additional icons to identify objects in lists

Configuration Option Changes for Genesys Administrator Extension

This section documents all configuration option changes in Genesys Administrator Extension from release 8.1.2 through 8.5.0.

Detailed descriptions of Genesys Administrator Extension configuration options are described in the *Genesys Administrator Extension Deployment Guide*.

Table 24: Option Changes in Genesys Administrator Extension

Option Name	Configuration Section Name	Type of Change	Change Occurred in Release	Additional Information
help_external_url	general	New	8.5.0	
max_upload_audio_file_size	arm	New	8.5.0	
verbose	log	Updated	8.5.0	New default value
local_ip_cache_dir	asd	Updated	8.1.4	New default value
silent_ini_path	asd	Updated	8.1.4	New default value
local_os	arm	Deleted	8.1.4	
target_os	arm	Deleted	8.1.4	
ga_timeout	ga	New	8.1.4	
verbose	log	Updated	8.1.4	
confserv_timeout	general	New	8.1.3	
local_ip_cache_dir	asd	New	8.1.3	
expire	log	New	8.1.3	
log	log	New	8.1.3	
log-cache-size	log	New	8.1.3	
segment	log	New	8.1.3	

Chapter

11 Load Distribution Server Migration

This chapter describes migration to release 8.x of Load Distribution Server (LDS) from earlier releases, beginning with release 6.5. It also discusses configuration option changes throughout the releases.

The information in this chapter contains the following topics:

LDS 8.x General Changes

This section describes major enhancements in LDS functionality since release 7.2. See the *Framework 8.1 Load Distribution Server User's Guide* for more information on these new features.

Changes in LDS Release 8.1

- **Support for new operating systems and platforms:**
  - Microsoft Windows Server versions Windows 2008 64-bit
  - Red Hat Linux version 5.0 64-bit
  - IBM AIX version 7.1 64-bit
  - HP-UX IPF version 11i v3 Integrity Native
  - VMware vSphere 4 Hypervisor
- **Support for common component features:**
  - Acresso FLEXNet Publisher version 11.9
  - TCP/IP-v6. For more information, refer to the *Framework 8.1 Deployment Guide*.
  - LDS no longer connects to applications that have disabled status in the configuration environment.

  - The default value of the `background-processing` configuration option has been changed to `true`.
- **Support for the Unresponsive Process Detection feature.** The following configuration options enable this feature: `heartbeat-period` and `hangup-restart`.

  For more information, refer to the *Framework 8.0 Management Layer User's Guide*.
- **Support for enhanced logging capability.** The maximum number of log files to be stored using the `expire` configuration option is now `1000`. The `expire` configuration option controls this feature.
- **Support for an alarm for expired requests in STD log mode:** If any requests have expired based on the option `rq-expire-timeout`, STD log messages are written to the log file allowing the customer to generate an alarm.
- **Support for:**
  - Genesys Administrator.
  - Bandwidth Monitoring.
  - Enhanced support of T-Server HA failover.
  - Bulk request pacing.

LDS 7.x General Changes

This section describes major enhancements in LDS functionality.

Changes in LDS Release 7.2

Please see the *Framework 7.2 Load Distribution Server User's Guide* for full information on these new features.

- **Support for new operating systems:**
  - Red Hat Linux version 4.0
  - HP Compaq TRU64/Alfa version 5.1B
  - Solaris/Sparc 10 32/64-bit version 2.10
  - Microsoft Windows Server version Windows 2003 64-bit. Support for Windows NT is discontinued.
- **Support for rolling upgrades:** In release 7.2, when a backup LDS connects, the primary LDS marks all existing transaction as "not synchronized" and prevents the switchover request from Solution Control Interface. As soon as all marked transactions are removed, switchover becomes possible. This features is controlled by configuration options `ha-dly-switchover` and `max-update-rate`.
- **Enhanced extended HA client support:** In release 7.2, a new attribute `EventSequenceId` has been implemented to improve extended HA client support.

Changes in LDS Release 7.1

See the *Framework 7.1 Load Distribution Server User's Guide* for full information on these new features.

- **Support for Tiered TProxy mode:** In this mode, LDS can be a client of another LDS that is running in TProxy mode. This enables "cascade" configurations of LDSs to be possible.
- **Support for Linux:** LDS is available for the Red Hat Linux 3.0 platform.
- **New distribution type:** To provide more flexible support of Receivers without native High Availability, a new type of distribution has been implemented. In addition to the current support of redundant Receivers in primary/backup pairs, and the support of groups of Receivers by configuring a group ID (using configuration option `group-id`) at Receiver level, you can now choose to distribute transactions to only one Receiver in a redundant pair/group ("cluster"). Use the configuration option `intra-cluster-distribution` to specify this distribution type.
- **Control of passive and active Receivers:** Load Distribution Server installed in `TProxy` mode can now control both active and passive Receivers simultaneously.

Changes in LDS Release 7.0

See the *Framework 7.0 Load Distribution Server User's Guide* for more information on these new features.

- **Licensing control:** In release 7.0, LDS installation procedures are changed to prompt the user for the location of the license file. A new configuration option, `license-file`, enables you to specify the path to the valid license file. Genesys also provides dynamic support for changes to the license file. (See *Genesys Licensing Guide* for more information.)
- **`Weighted Round Robin (WRR)` mode:** In release 7.0, you can configure individual Receiver applications to operate in this mode, which varies the weighting of transactions distributed to that Receiver. The `loading-coefficient` configuration option controls this feature.
- **New distribution modes:** In addition to normal `Load Distribution` mode, you can now configure LDS to operate in different distribution modes.
  - **`TProxy` mode:** LDS reduces the amount of data transmitted over a WAN between remote T-Servers and a number of T-Server clients in a central site. Instead of T-Servers sending the same events multiple times—once for every client—they send the events a single time to a central LDS, which then distributes this event to all clients on the central site that are registered for a particular DN. The `distribute-mode` configuration option controls this feature.
  - **`Broadcast` mode:** Events are broadcast to any client that requests them. You can use any client capable of connecting to LDS in `Load Distribution` mode in `Broadcast` mode configurations. However, you cannot mix clients for `Broadcast` mode and clients for one of the load distribution modes (`Load Distribution` mode or Single T-Server mode) on the same LDS. The `distribute-mode` configuration option controls this feature.

  - **`Single T-Server LDS mode`:** Any client can connect to LDS without modification, as long as LDS connects only to a single T-Server. The `distribute-mode` configuration option controls this feature.
- **Receiver grouping:** You can group Receivers using the settings in the new configuration option `group-id` to enable LDS to treat them as one Receiver. The `group-id` configuration option controls this feature.
- **Support for additional operating system platforms:**
  - Sun Solaris 2.9, 32- and 64-bit
  - AIX 5.2, 32- and 64-bit
- **Improved processing of internal statistical calculations:** In previous releases of LDS, internal statistical calculations were performed for every call in order to distribute it to the pool of Receivers. With this release, you can configure the frequency with which internal statistics are calculated (every call, every 10th call, and so on), which helps to reduce CPU loading and improve LDS performance where LDS is distributing to a large number of Receivers. The `stat-calc-threshold` configuration option controls this feature.
- **LDS release 7.0** requires the use of:
  - Framework 6.5 or higher—Framework 6.1 environments must be upgraded before installing LDS 7.0.
  - License Manager 7.0.

Prerequisites for Migration from LDS 6.5/7.x to 8.1

1. Install the latest release of License Manager.
2. Upgrade versions of the following Framework components to 8.1 or higher:
   - Configuration Server
   - DB Server
   - Configuration Manager
   - Solution Control Server

Configuration Option Changes

Table 25 describes changes in LDS configuration options from releases 6.5 through 8.1, with the most recent changes listed first.

Table 25: LDS Configuration Option Changes

Current Option Name	Type of Change	Occurred in Release	Details
LDS Section			
enable-safe-handover	New	8.1	
link-alarm-high	New	8.1	
link-alarm-low	New	8.1	
load-report-interval	New	8.1	
max-outstanding	New	8.1	
queue-expire-timeout	New	8.1	
server-id	New	8.1	
use-link-bandwidth	New	8.1	
tlib-verbose New		7.2.1	
ha-dly-switchover	New	7.2	
max-update-rate	New	7.2	
use-query-call	New	7.1	
register-guard	New	7.1	
register-mode	New	7.1	
strict-backup-name	New	7.1	
active-context-limit	New default value and valid values	7.1	
context-cleanup	New default value and valid values	7.1	
background-processing	New	7.0	
	Default value changed to `true`	8.1	

Table 25: LDS Configuration Option Changes (Continued)

Current Option Name	Type of Change	Occurred in Release	Details
background-timeout	New	7.0	
distribute-mode	New	7.0	
intra-cluster-distribution	New	7.0/7.1	
stat-calc-threshold	New	7.0	
license-file	New	7.0	
query-timer	New	6.5.3	
LDS Section of Receiver Application			
group-id	New	7.0	
loading-coefficient	New	7.0	

Chapter

12 Stat Server Migration

This chapter describes migration to release 8.*x* of Stat Server from earlier releases, beginning with release 6.5. It also discusses changes in Stat Server behavior and configuration throughout the releases. The latest available release of Stat Server is 8.1.2.

This chapter contains the following sections:

Preliminary Migration Instructions

Note: If you want to upgrade your operating system, you must do so before you migrate Stat Server.

Before you migrate your version of Stat Server to release 8.*x*, review the following sections:

- "Stat Server 8.x General Changes" on page 222
- "Configuration Option Changes" on page 228

Licensing Requirements

Beginning with release 7.0 of Stat Server, you do not require a license to use Stat Server. Releases of Stat Server earlier than 7.0 did require a license.

Compatibility with Framework Components

Stat Server 8.*x* interoperates successfully with the following Framework components:

- Configuration Server, releases 6.5 through 8.1
- Local Control Agent, releases 6.5 through 8.1
- Message Server, releases 6.5 through 8.1
- DB Server, releases 6.5 through 8.1
- T-Server, release 6.5 through 8.1
- Solution Control Server, release 6.5 through 8.1

However, to access all of the features that are available in a particular release, Genesys recommends that you operate Stat Server within the same family of Framework components in which it was released, or the latest available component release. Otherwise, some documented features may not be available to you.

Stat Server 8.x General Changes

This section describes major enhancements in Stat Server functionality since release 7.6.

- A new statistical category, `ExpectedWaitTime2`, that enables the estimation of wait-time in queue for single media with consideration of agent capacities in handling multiple simultaneous interactions in multimedia (other-than-voice) environments.
- Better control in hiding sensitive data in the Stat Server log via the `[log-filter]` and `[log-filter-data]` configuration sections.
- Improved logging to describe, in two-minute intervals, Stat Server's current load.
- Wider support for operation on more operating systems and RDBMS platforms.
- The addition of source timestamps to the Stat Server statistics profile, to provide better synchronization with Interaction Concentrator.
- Increased support for secure Transport Layer Security connections to Stat Server's clients and servers. Refer to "Introduction to Genesys Transport Layer Security" in the *Genesys Security Deployment Guide* for more information.
- Storage of an interaction's ID in a new column of the `STATUS` table, along with the database initialization scripts to create this table. This functionality is available for all supported RDBMSs, except for Informix.

- Filter improvements that enable:
  - Complex predicate expressions for filters using the ReasonCode keyword in the AttributeExtensions attribute of TEvents.
  - Filtering based on the AttributeExtensions TEvent attribute.
  - Better control in hiding sensitive data in the Stat Server log.
- Improvement in Stat Server's detection and clearing of stuck calls on virtual queue objects.
- Improvement in the calculation of `LoadBalance` statistics by enabling you to set the initial value for average handling time.
- Support for operating Outbound Contact from a SIP-controlled telephony server.
- Support for creating a Stat Server application by using Genesys Administrator. Refer to *Genesys Administrator Help* for general instructions on how to use the provided XML template to configure a Stat Server 8.*x* application.
- The introduction of limited reporting for workbin objects. Refer to the descriptions of the `CallWait`, `CallEntered`, and `CallDistributed` mediation DN actions in the *Framework Stat Server User's Guide* for more information.
- Starting with 8.1.0 release Stat Server does not support Voice Callback Extension.
- For wider scalability, Stat Server 8.1.2 implements an improved agent-place model, unlinking agents from places. Refer to the *Genesys 8.1 Resource Capacity Planning Guide* for more information.
- Stat Server 8.1.2 introduces the Stat Server cluster and a new mode of operation—Stat Server in cluster mode—to support the interactions distributed by a SIP cluster. Refer to the *Framework Stat Server Deployment Guide* and *Framework Stat Server User's Guide* for more information; however, this functionality is not applicable to Stat Server deployed in a regular environment. For information on Genesys SIP Cluster technology, contact your Genesys representative.
- Stat Server 8.1.2 operating in restricted cluster mode does not support database.
- Stat Server 8.1.2 supports Java Development Kit (JDK) version 1.7.
- Release 8.1.2 of Stat Server introduces the `TotalContinuousNumber` statistical category. Refer to the *Framework Stat Server User's Guide* for more information.

Stat Server 7.x General Changes

This section describes major enhancements in Stat Server functionality since release 6.5.

Stat Server Supports SSJEs

Starting with the release 7.0 of Stat Server, some statistics for Multimedia (formerly known as Multi-Channel Routing, or MCR) require that specific Stat Server Java Extensions (SSJEs)—`eServiceContactStat.jar`, `eServiceInteractionStat.jar`, and `eServiceSystemStat.jar`—be configured in Stat Server. Likewise, some statistics for the Voice Callback option of Enterprise Routing require the `VCBStatExtension.jar` Java extension. Stat Server release 7.0.3 is the first release to support these extensions.

Starting with release 7.2 of Outbound Contact, some statistics for Outbound Contact required the `OCCStatExtension.jar` Java extension. Stat Server supports the `eServiceSystemStat.jar` and `OCCStatExtension.jar` Java extensions starting with release 7.2.

These extensions are automatically deployed and configured under either of the following conditions:

- You install Stat Server from the Real-Time Metrics Engine CD.
- You configure or upgrade your Stat Server `Application` object to release 7.0.3 (or higher) by using the Stat Server Wizard.

To generate open-media data, your Stat Server release must be 7.1 or higher, and you must install the eServices Extensions.

If you configure Stat Server manually, you will have to run separate installations for Outbound Contact Extension and eServices Extension, and/or Voice Callback Extension. Then, you will have to update your Stat Server `Application` object to configure one or more of the following:

- One Outbound Contact Extension
- Three MCR Extensions
- One VCB Extension

Also, you must configure Extension- and JVM-related options.

Under these circumstances, you must ensure the following:

- You have set the `enable-java` Stat Server configuration option to `TRUE` in the `statserver` configuration section.
- For Outbound Contact, you have created the `OCCStatExtension.jar` configuration option in the `java-extensions` section and set its value to `TRUE`.
- For Multimedia, you have created the `eServiceContactStat.jar`, `eServiceInteractionStat.jar`, and `eServiceSystemStat.jar` configuration options in the `java-extensions` section and set their values to `TRUE`.

- For Voice Callback (VCB), you have created the `VCBStatExtension.jar` configuration option in the `java-extensions` section and set its value to `TRUE`.
- You have configured the `java-config` section including the correct path to your Java Runtime Environment that you must specify in the `jvm-path` configuration option in this section.
- You have added your Stat Server application to the `Connection` tabs of your appropriate servers, such as Universal Contact Server, Interaction Server, and Outbound Contact Server, and Voice Callback Server.

Refer to the *Framework Stat Server Deployment Guide* for installation instructions, as well as additional information about these and other Java-related configuration options and sections. Likewise, if you upgrade Stat Server manually, you must also upgrade the extensions manually to access new statistical definitions that are included therein.

Starting with release 7.5 of Stat Server, Java Runtime Environment 1.4 is the minimum required version to operate Stat Server successfully.

Changes to Seven VCB Metrics

To enable the count of callback requests initiated from a Web interface within VCB reports (in addition to those that are initiated from a telephone), the definitions of seven metrics were changed in the `Callback Operation` report that is derived from the VCB Stat Server Java Extension. Those metrics are the following:

- `CB Request Attempts`
- `ASAP CB Requested`
- `Scheduled CB Requested`
- `Last Hour (CB Requested)`
- `Successful CB Made`
- `Succeeded`

The preceding changes occurred in release 7.1 of Stat Server.

Backward Compatibility Provided for ICS in Multimedia

Even though Internet Contact (ICS) 6.5 and Multimedia 7.*x* are very different Genesys solutions, Stat Server does provide some level of backward compatibility for reporting clients with regard to multimedia statistics. But there are some exceptions:

- The Multimedia solution does not provide the ability to report on virtual route points, whereas in ICS, such functionality is reportable.

  The Multimedia solution does not allow you to report on Multimedia-bounded route points. As a result, this solution is unable to request statistics for Multimedia-controlled virtual route points.
- You cannot use the `CallAnswered` or `CallReleased` masks in statistics that measure activity for nonvoice interactions that stem from a Multimedia virtual queue.

Discontinuation of Statistical Category

The `EstimTimeToEndCurrentNumber` statistical category has been discontinued as of release 7.0. This category was previously used in some CCPulse+ templates to calculate the estimated amount of time it took for interactions to be

distributed (or abandoned) from a particular queue, routing point, or queue group.

Resource Capacity Model

Release 7.0.2 of Stat Server introduced the resource capacity model to better manage agent workload and interaction delivery, especially in a multi-channelled environment.

Stat Server 7.6 introduces support for a new type of DN—a multimedia DN—which is controlled by SIP T-Server. The addition of this multimedia DN to a Genesys contact center environment enhances the resource capacity model by enabling URS to route more than one simultaneous interaction to a single instance of this DN type. Some previously existing action types, when generated at these DNs, are now treated as media-specific actions, so multiple simultaneously present instances of each such action type are allowed on multi-media DNs (one action instance per media). Chapters 1 and 6 of the *Genesys Resource Capacity Planning Guide* describe this new functionality. The *Framework Stat Server User's Guide* describes the new actions that are introduced in this release to support multimedia DN functionality.

Stat Server Database Changes

Release 7.2 of Stat Server generates new data for releases 7.2 and higher of Genesys Info Mart, and introduces the `VOICE_REASONS` table for storing agent reasons for being in the `Ready`, `NotReady`, and `AfterCallWork` states for voice interactions.

In release 7.1 of Stat Server, the values that are stored in three fields changed from those that were stored in previous releases:

- `ConnID` fields of both the `QINFO` and the `STATUS` tables
- `Status` field of the `QINFO` table

ConnID Fields: Starting with release 7.1, Stat Server now stores the first transfer connection ID in the `ConnID` field of the `QINFO` and `STATUS` tables—instead of the current connection ID—in multi-site scenarios in which the first transfer connection ID differs from the current connection ID that is associated with the call.

Status Field: Starting with release 7.1, Stat Server may send one of two new values to the `Status` field of the `QINFO` table to accommodate its recognition of stuck calls that have been cleared in T-Server. A value of `8` indicates that a call was cleared after being stuck on a distribution DN. A value of `9` indicates that a call was cleared after being stuck while ringing at the DN of an agent.

And, in Stat Server 7.6, the values stored in two fields of the `LOGIN` table (`DNDBID` and `LOGINID`) were expanded to recognize multimedia:

- **DNDBID Field:** Stat Server stores `0` (zero) in this field if the agent logs in to or off from a media channel.
- **LOGINID Field:** Stat Server stores the media type in this field where an agent has logged in to or off from a media channel.

Refer to the *Framework Stat Server Deployment Guide* for further details and the meaning of other values.

Log Events

Each 7.*x* release of Stat Server has introduced improvements in the logging of server-related events. The 7.6 release of Genesys introduces user-designated levels for Stat Server 7.6 log events by way of the `level-reassign-<eventID>` configuration option—enabling you to control which events Stat Server classifies as `Standard`, `Trace`, or `Debug` in its log. Refer to the *Framework Stat Server Deployment Guide* for information on how to reassign a default log event level.

Algorithm Changes

This section describes some of the algorithm changes that were implemented between Stat Server releases 6.5 and 7.*x* of Stat Server.

- Starting with release 7.0.1 of Stat Server, `AverageOfCurrentNumber/Time` statistics no longer skip the first current value as was the case with previous implementations of Stat Server. The new algorithm is described in detail in the "Statistical Categories" chapter of the *Framework Stat Server User's Guide*.
- Starting with release 7.0.1, Stat Server uses an enhanced procedure for determining the values of filtered statistics. Refer to the "Filters Section" of the "Statistic Configuration Options" chapter of the *Framework Stat Server User's Guide* for details and examples.
- Starting with release 7.0.1, Stat Server increments `CallReleased` on queue statistics if a transfer is completed immediately after Stat Server receives `EventEstablished`.
- Starting with release 7.0.1 of Stat Server, both `ACWCompleted` and `AfterCallWork` actions begin after call release, for all switch types. Refer to the "Stat Server Actions" chapter of the *Stat Server User's Guide* for details.
- Releases 7.0.1 and higher of Stat Server, register empty agent and place groups with `Monitored` status. This feature has a positive affect on routing strategies that are used in Genesys Enterprise Routing.
- Regular statistics (those that are based on actions or statuses) no longer are affected by the enabling or disabling of statistical objects in release 7.0.1 of Stat Server. For example, disabling an agent in his or her group does not affect the statistics of his or her agent group. Only current-state statistics are affected by the enabling or disabling of objects.
- Release 7.0.2 of Stat Server introduces five new `CallDistributedToQueue...` actions that are generated when an interaction is distributed from one distribution DN to another (or the same) distribution DN.
- Release 7.0.2 of Stat Server introduces several new actions for enabling more detailed reporting for consult and internal calls by separating initiated and received calls, if needed—for example, `CallInternalOriginated` and `CallInternalReceived`.
- Release 7.5 of Stat Server expands the versatility of filters by enabling you to use wildcard characters in the `PairExists` function.
- Release 7.5 of Stat Server introduces the `CurrentContinuousTime` statistical category and the `CallConferenceOriginated` action.

- Release 7.5 of Stat Server enables you to use the logged in status of switches as a parameter for determining the composition of virtual agent group membership.
- Release 7.5 of Stat Server checks for and removes stuck calls on virtual queues.
- Release 7.6 of Stat Server improves propagation of `CallAnswered` statistics for virtual queue objects in multi-site environments when the `use-data-from` T-Server configuration option is set to `original`.
- Stat Server release 7.6 enables you to apply `DCID` to durable, call-related `TotalTime` statistics.
- In the 7.6 release, Stat Server calculates the status of Extension DNs differently for events originating from a SIP Server multimedia DN (where the `multimedia` configuration option has been set to `TRUE`) as Stat Server calculates such events originating from a nonSIP-compliant T-Server Extension DN.

Configuration Option Changes

The 8.1.2 release along with regular mode introduces the cluster mode of Stat Server operation, which is achieved through configuration of Stat Server Cluster `Solution` objects. Stat Server Cluster `Solution` objects house the applications that the solution controls as well as the options and stat types that will be shared by Stat Server applications that belong to the solution. Table 26 lists the options that you can configure on the `Annex` tab of Stat Server Cluster `Solution` objects for Stat Server operating in restricted cluster mode.

Table 26: Changes in Stat Server 8.1.*x* Solution Options for Restricted Cluster Operation

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
cluster Section			
host	Added	8.1.2	Specifies the host name for the Stat Server Cluster `Solution`.
reset-delay	Added	8.1.2	Specifies the delay after which Stat Server will reset reset-based statistics.
take-event-attached-data-changed-from-iproxy	Added	8.1.2	Controls whether Stat Server masks `EventAttachedDataChanged` TEvents through its T-Controller connection of SIP Server when SIP Server transmits user data about regular DNs.

Tables 27 through 36 document the changes in Stat Server application configuration from releases 8.1.0 through 6.5. For a complete listing and description of all configuration options that Stat Server currently supports as well as information about in which mode (regular or cluster) of Stat Server operation the options apply, refer to the "Fine-Tuning Stat Server Configuration" chapter in the *Framework Stat Server Deployment Guide* and the "Statistic Configuration Options" chapter in the *Framework Stat Server User's Guide*.

Stat Server also supports common log options. Refer to Table 5, "Common Option Changes," on page 118 for information about these changes.

Table 27: Option Changes in Stat Server 8.1.x

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
statserver Section			
allow-asm-outbound-on-established	Added	8.1	Controls whether Stat Server generates `ASM_Engaged` and `ASM_Outbound` actions.
show-attached-data	Removed	8.1	To hide user data in the Stat Server log, use option `default-filter-type` instead.
show-queued-interactions	Added	8.1	Controls the appearance of the list of queued interactions for mediation DNs in the Stat Server log.
subscribe-for-all-ixn-server-events	Added	8.1	Limits the types of events that Stat Server receives from Interaction Server.
<stat type> Section			
ReasonStartOverridesStatusStart	Added	8.1	Controls whether Stat Server uses the timestamp of status changes alone or the timestamp of both reason and status changes to determine the values of current-state statistics.
statserver Section (of VQ object)			
media-type	Added	8.1	Configured on the `Annex` tab of virtual queue objects to determine the media type of interactions that the virtual queue has been configured to handle.

Table 28: Option Changes in Stat Server 8.0.x

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
statserver Section			
allow-vq-orig-dns-from-environment	Added	8.0	Specifies whether Stat Server generates `CallAnswered` and associated actions to virtual queue origination DN objects that belong to the `Environment` tenant.
check-vq-stuck-calls-frequency	Added	8.0	Specifies the frequency with which Stat Server checks virtual queues for stuck calls. Prior to the introduction of this option, this functionality was internally hardcoded at 60 seconds. The default in the 8.0 release is 600 seconds.
generate-stat-validity-events	Added	8.0.000.26	Controls whether Stat Server sends `Event StatInvalid` and `EventStatValid` events to Stat Server clients.
ixn-id-in-status-table	Added	8.0	Specifies whether Stat Server will populate the `IxnID` field in the `STATUS` table.
load-balance-aht	Added	8.0	Specifies the initial value for the average handling time for interactions distributed from mediation DNs. This value is used by the `LoadBalance` statistical category.
queue-disable-dcid-for-missed-calls	Added	8.0.000.26	Controls whether Stat Server ignores the `CONNID` attribute of the `ACWMissed` and `CallMissed` actions on mediation DNs.
queue-use-pseudo-actions	Added	8.0	Enables the use of pseudo-actions on mediation DNs.
suppress-user-data	Added	8.0	Configured on the `Annex` tab of switch and/or DN objects to suppress Stat Server from transmitting call-extracted attached data to clients.
vq-clean-call-details-upon-party-changed	Added	8.0.000.37	Controls whether Stat Server clears call details upon receipt of `EventPartyChanged`.
vq-ignore-third-party-dn	Added	8.0	Controls whether Stat Server relies on the `ThirdPartyDN` attribute of `EventDiverted` TEvents to determine the DN to which a call was diverted from a given virtual queue.

Table 28: Option Changes in Stat Server 8.0.x (Continued)

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
vq-treat-unknown-third-party-dn-as-agent-dn	Added	8.0	Controls whether Stat Server references the value of the `ThirdPartyDN` attribute in `EventDiverted` TEvents to determine the location to which the call was diverted from a virtual queue for generation of `CallAnswered`. If `ThirdPartyDN` points to a DN that is unknown to Stat Server and this option is set to `yes`, Stat Server considers this unknown DN to be an agent DN.
<stat type> Section			
UseSourceTimeStamps	Added	8.0	Enables you to control whether Stat Server uses local timestamps or source timestamps (from the event-supplying server) in its calculation of time-based statistics.

Table 29: Option Changes in Stat Server 7.6.x

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
statserver Section			
capacity-treat-acw-as-interaction	Added	7.6	Enables Stat Server to calculate the capacity vector differently in determining the capacity of associated place or agent by considering ACW associated with voice interactions.
debug-level	Changed	7.6 The	`Client` option was changed to exclude `StatValid/StatInvalid` messages among the communications that are logged.
	Added	7.6	`ClientX` is a new value that you can use for Stat Server to log `StatValid/StatInvalid` messages and to exclude logging of other statistic-related communications.
generate-transfer-taken-on-ringing	Added	7.6.100.40	Controls when Stat Server generates the `CallTransferTaken` action for a transferred call—either while the call is ringing or after it has been answered.

Table 29: Option Changes in Stat Server 7.6.x (Continued)

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
max-unsent-sql-statements	Added	7.6	Controls the number of SQL statements that Stat Server is allowed to maintain in memory.
multimedia-activity-in-status-table	Added	7.6	Controls whether multimedia activity is stored in the `STATUS` table.
rp-handle-queueing-events	Added	7.6.100.40	Controls Stat Server's recognition of the `CallState` attribute of `EventQueued` TEvents that occur at routing points.
suppress-agent-status-updates-for-ixn-server	Added	7.6	Suppresses Stat Server from sending `Event CurrentAgentStatus` notifications to Interaction Server and other clients.
use-alt-enter-time Ad	ded	7.6.100.43	Overrides the value that is set by the `vq-use-alt-enter-time` global option to control whether Stat Server uses an alternative enter time when it calculates the durations of some actions on a virtual queue-by-virtual queue basis.
vq-use-alt-enter-time Add	ed	7.6.100.43	Controls whether Stat Server uses an alternative enter time when it calculates the durations of some actions in some scenarios that involve virtual queues.
warn-unsent-sql-statements	Added	7.6	Defines a threshold upon which Stat Server begins to log warning messages about the high number of SQL statements that currently are being stored in memory.
xx-disconnect-clients-on-ixn-server-disconnect	Added	7.6.100.40	Controls whether Stat Server disconnects all clients upon receiving notification of disconnect from Interaction Server.

Table 30: Option Changes in Stat Server 7.5.x

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
statserver Section			
do-backup-in-background	Added	7.5	Enables Stat Server to spawn a separate thread for storing statistic definitions in its backup file.
filters-allow-wildcards-in-values	Added	7.5	Enables Stat Server to accept wild-card characters in the `<value>` argument of `PairExist` functions in filters.

Table 31: Option Changes in Stat Server 7.2.x

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
statserver Section			
accept-clients-in-backup-mode	Added	7.2	Enables Stat Server to accept client connections when it operates in backup mode.
ignore-disabled-objects-in-group-statistics	Added	7.2	Specifies if group statistics account for `Person` and `Place` objects that are disabled in configuration.
ignore-disabled-objects-in-queue-statistics	Added	7.2	Specifies if queue statistics account for `Person` and `Place` objects that are disabled in configuration.
NEC-position-extension-linked	Added	7.2	Engages a special model for processing ACW-related (after-call work) events from NEC T-Server.
position-extension-linked	Added	7.2	Affects Stat Server interpretation of the place status when the place contains a position and an extension that belong to the same switch.
reg-dns-chunk-delay	Added	7.2	In conjunction with `reg-dns-chunk-volume`, helps Stat Server to optimize DN registration at startup.
reg-dns-chunk-volume	Added	7.2	In conjunction with `reg-dns-chunk-delay`, helps Stat Server to optimize DN registration at startup.

Table 31: Option Changes in Stat Server 7.2.x (Continued)

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
send-timeout	Added	7.2	Prevents Stat Server from disconnecting slow clients.
voice-reasons-table	Added	7.2	Enables Stat Server to populate the `VOICE_REASONS` table.

Table 32: Option Changes in Stat Server 7.1.x

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
statserver Section			
max-client-connections	Added	7.1	Added to limit the number of clients that can be connected to Stat Server at any given time.
status-table-update-end-time-at-end-only	Added	7.1	Prevents Stat Server from recording a status end time until the status completes.
vag-statistics-active-agents-only	Added	7.1	Limits membership of virtual agent groups to only those active agents that satisfy a particular script condition.
<stat type> Section			
MediaType	Added	7.1	To further restrict the values that Stat Server returns to its clients by way of a specified media type.

Table 33: Option Changes in Stat Server 7.0

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
statserver Section			
auto-backup-interval	Renamed	7.0	Original name was `AutoBackupInterval`.
backup-file-name	Renamed	7.0	Original name was `BackupFileName`.

Table 33: Option Changes in Stat Server 7.0 (Continued)

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
binding-threshold	Renamed	7.0	Original name was `OracleBindingThreshold`.
check-stuck-calls	Renamed	7.0	Original name was `CheckStuckCalls`.
CurrentStateDelta	Removed	7.0	Stat Server now dynamically chooses the optimal method for propagation, making this option obsolete.
debug-level	Renamed	7.0	Original name was `DebugLevel`.
	Added	7.0.1	`Mngmnt` is a new value that you can use withthis configuration option.
DefaultGroupSPT	Removed	7.0	
emulate-acw-for-mlink	Renamed	7.0	Original name was `EmulateACWForMLink`. This configuration option no longer is necessary for Stat Server 7.0 if the MLink T-Server also is release 7.0. Please be sure to turn this option off after T-Server upgrade.
enable-binding	Renamed	7.0	Original name was `OracleBinding`. This option now supports binding for Microsoft SQL relational database as well as Oracle.
enable-java	Added	7.0.2	Enables Stat Server to read stat type definitions from Java extension jar archives.
ignore-off-hook-on-position	Renamed	7.0	Original name was `IgnoreOffHookOn Position`.
local-time-in-status-table	Renamed	7.0	Original name was `LocalTimeInStatusTable`.
login-table	Renamed	7.0	Original name was `LoginTable`.
old-stats-remove-interval Re named		7.0	Original name was `OldStatsRemoveInterval`.
QInfoTable	Renamed	7.0	Original name was `qinfo-table`.
reconnect-timeout	Renamed	7.0	Original name was `reconnect_timeout`. All Stat Server connections are now nonblocking.
reg-delay	Renamed	7.0	Original name was `reg_delay`.
reset-status-on-reason	Renamed	7.0	Original name was `ResetStatusOnReason`.

Table 33: Option Changes in Stat Server 7.0 (Continued)

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
status-table	Renamed	7.0	Original name was `StatusTable`.
time-format	Renamed	7.0	Original name was `TimeFormat`.
use-original-connid	Removed	7.0.2	Original name was `use_original_connid`.
use-server-id	Renamed	7.0	Original name was `UseServerID`.
java-config Section			
java-config section	Added	7.0.2	Specifies the path to where all Java extensions are stored.
java-extension-loading-timeout	Added	7.0.2	Specifies the amount of time that Stat Server allocates for the loading of Java extensions.
java-extensions-dir	Added 7.	0.2	Specifies the path to where all Java extensions are stored.
java-libraries-dir	Added	7.0.2	Specifies the path to where all Java libraries are stored.
jvm-path	Added	7.0.2	Specifies the path to the Java Virtual Machine (JVM).
java-extensions Section			
java-extensions section	Added	7.0.2	New section that lists the Java Extensions that Stat Server loads.
<*filename*>.jar	Added	7.0.2	Specifies if Stat Server should load the Java Extension that is indicated by the name of the option.
jvm-options Section			
jvm-options section	Added	7.0.2	New section that enables you to configure options for storing command-line options that are specific to your JVM. For Solaris platforms, if HotSpot JVM is used, Genesys recommends that you set an option for the `-XX:ThreadStackSize` command-line parameter to `4096` to guarantee sufficient stack size.

Table 33: Option Changes in Stat Server 7.0 (Continued)

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
<stat type> Section			
new sections	Added	7.0	The following two new stat-type options were added to support Java stat types: • `AggregationType` • `JavaSubcategory` **Note:** `AggregationType` functionality is available through CC Analyzer Data Sourcer.

Table 34: Option Changes in Stat Server 6.5.x

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
statserver Section			
CurrentStateDelta	Added 6.5		
EmulateACWForMLink	Added 6.	5	Enables Stat Server support for the ACW implementation in T-Server for the Nortel Meridian 1 switch.
OracleBinding	Added	6.5	Added to support database binding for Oracle RDMBSs and achieve improved performance.
OracleBindingThreshold	Added	6.5	Added to support database binding for Oracle RDMBSs.

Table 35: Option Changes in Stat Server 6.1

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
statserver Section			
use_original_connid	Added	6.1.009.01	

Table 36: Option Changes in Stat Server 6.0.x

Current Option Name	Type of Change	Release # in Which Change Occurred	Details
statserver Section			
log-buffering	Removed	6.0	Replaced with common log options.
log-check-interval	Removed	6.0	Replaced with common log options.
log-file-name	Removed	6.0	Replaced with common log options.
log-file-size	Removed	6.0	Replaced with common log options.
log-remove-old-files	Removed	6.0	Replaced with common log options.
verbose	Removed	6.0	Replaced with common log options.

Migrating to 8.x

Upgrading Stat Server

To migrate to any 8.*x* release of Stat Server, you must do both of the following:

1. Upgrade the Stat Server `Application` object.
2. Upgrade the Stat Server application by installing the latest Stat Server executable file.

You can run the Stat Server Wizard in Upgrade mode to both upgrade your `Application` object and deploy an installation package, or you can perform the upgrade manually. Both methods are described in the "Configuring Stat Server" chapter of the *Framework Stat Server Deployment Guide*.

Updating an Existing Stat Server Database

The 8.0 release introduces a new column (`IxnID`) in the `STATUS` table for storing interaction IDs generated from Interaction Server. Your database administrator can manually add the `IxnID` field to your Stat Server database using attributes from the appropriate database initialization script provided with the 8.0 release. As a precaution, always back up your database before making structural changes to it.

Warning! Do not run the initialization scripts against an existing Stat Server database. The scripts drop all tables before creating them anew and all stored data will be lost if you do.

Note that Stat Server does not populate this field for Informix RDBMSs.

In conjunction with the structural database changes, set the appropriate Stat Server configuration options to populate this field. Review the `ixn-id-in-status-table` and `multimedia-activity-in-status-table` configuration options that are described in the *Framework Stat Server Deployment Guide,* and set them appropriately in the `[statserver]` section of your Stat Server `Application` object using Genesys Administrator or Configuration Manager.

Implementing Other Configuration Updates

If you have not previously used the alarm-signaling capabilities of the Management Layer, or if you want to make some adjustments, configure or update the following objects after performing Stat Server migration:

- Alarm Conditions
- Alarm Reactions

Review the recent changes to common log events and Stat Server–specific log events that are listed in *Genesys Combined Log Events Help.* Verify that your Alarm Condition and Alarm Reaction objects are based on currently supported log events. If necessary, make appropriate changes or configure new alarm conditions for newly-introduced log events.

Note: Use Management Layer wizards that are available in SCI to update or configure alarm conditions and alarm reactions. Refer to *Framework Solution Control Interface Help* and the *Framework Management Layer User's Guide* for more information.

If you have not previously used the centralized-logging and alarm-signaling capabilities of the Management Layer, but would you like to do so now, add a connection to the Message Server on the `Connections` tab of the Stat Server `Application` object in the Genesys Administrator or Configuration Manager. Do this after you have configured `Application` objects for the Management Layer components.

If you are using the Configuration Server Proxy to notify this Stat Server about configuration changes, add the Configuration Server Proxy to the `Connections` tab of the Stat Server `Application` object in the Genesys Administrate or Configuration Manager. Do this after you have configured an `Application` object for the Configuration Server Proxy.

Rolling Back Stat Server

Rolling back Stat Server to an earlier release is more effective if you possess the export of your original configuration, as recommended in the *Deployment Guide*.

1. Stop Stat Server.
2. In Genesys Administrate or Configuration Manager, re-import the `*.cfg` or `*.conf` file from your original environment. *Framework Configuration Manager Help* describes how to use the Import utility.
3. Delete any new connections to server applications that you have configured on the `Connections` tab of the Stat Server `Application` object.
4. Uninstall the undesired release of Stat Server 8.*x*.
5. Reinstall the desired, earlier release of Stat Server.
6. Start Stat Server and check its log to verify proper operation.

Chapter

13 Integration Server and Software Development Kits Migration

These migration procedures explain how to upgrade from version 6.1, 6.5.0, 6.5.1, or 7.x to version 7.0, 7.1, 7.2, 7.5 or 7.6, of Genesys Integration Server (GIS) and related Software Development Kits (SDKs).

In the 6.1 release, this product was named the G*plus* Foundation Real-Time Statistics API. In the 6.5.x through 7.1 releases, it was named the Genesys Developer Program Framework SDK, and its GIS component was named Genesys Interface Server.

Beginning with the 7.2 release, GIS has been renamed the Genesys Integration Server, and it combines the features of the former GIS 7.1 and Genesys .NET Server 7.1.

GIS presents APIs for five services: Session Service, Statistics Service, Configuration Service, Agent Interaction services, and Open Media Interaction services. The Session Service provides login, logout, and licensing functionality, serving all the other GIS-based APIs. The Configuration and Session APIs were added in release 6.5.1. The Agent Interaction services were added in release 7.0, and the Open Media Interaction services in release 7.1. Certain code examples and documentation, together with GIS, make up the Statistics and Configuration SDKs.

Warning! The 7.x releases do *not* include the 6.1/6.5.0 Statistics API. If you are migrating from 6.1/6.5.0, you will need to make substantial changes to your client application to conform to the new Statistics API. This migration chapter includes references to code examples that illustrate the differences. For further information, see “6.1 and 6.5.0 to 7.x Statistics API” on page 253.

This chapter covers the following topics:

Overview

Migration from a prior version of this product to a 7.x release includes the following major steps:

Migration Steps

1. Install the new version of GIS.
2. Make any necessary changes to the configuration options for the GIS application.
3. Update your client application to take advantage of new methods for retrieving statistical and configuration information.
4. Update your licensing (in migration scenarios where this is necessary) by doing either or both of the following:
   - Install an updated version of License Manager.
   - Copy feature items from multiple existing license files into a single new license file for given host. (This process is described in the *Genesys Licensing Guide*.)

This chapter details the changes made to configuration options in GIS 7.x. It also summarizes changes to certain methods used with the Statistics, Session, and Configuration APIs. However, because client application development is always customized, this chapter generally provides no specific instructions for rewriting your client application to take advantage of the new functionality.

This chapter does include some commentary, and pointers to useful code examples, to assist users migrating from the 6.1/6.5.0 Statistics API to the current Statistics API.

This chapter should be used together with the your current version of the *Genesys Integration Server Deployment Guide* (or, if you are migrating to

version 7.0 or 7.1, the *Genesys Developer Program 7.1 Genesys Interface Server Deployment Guide*).

The *Deployment Guide* contains full configuration and installation instructions for GIS 7.x, including instructions for new configuration options added in versions 7.x.

Genesys Integration Server with Custom Clients

Table 37 identifies the compatibility of Genesys Integration Server (GIS) with clients built for integration with it.

7.2 or Later Libraries with GIS 7.1 or .NET Server 7.1

Applications built with 7.2 or later libraries are not backward-compatible with Genesys Interface Server 7.1 or .NET Server 7.1.

GIS 7.2 and GIS 7.5

Genesys Integration Server 7.2 and 7.5 are made of two connectors from which the customer must choose at installation time: GIS SOAP and GIS GSAP.

- GIS SOAP and GIS GSAP respectively are provided to replace the former GIS and .NET Server.
- GIS SOAP installed with the former GIS, and GIS GSAP installed with the former .NET Server behave like GIS and .NET Server, respectively, and can work with 7.1 or later proxies.

GIS 7.2 and GIS 7.5 Proxies

The 7.2 and 7.5 proxies are backward-compatible on the interface level with the 7.1 proxies, so that client applications coded with the 7.1 proxies continue to work with the 7.2 and 7.5 proxies.

However, the 7.2 and 7.5 proxies are not backward-compatible on the protocol level; they are intended for use with GIS 7.2 and 7.5 servers only, not with GIS 7.1 servers.

Table 37 shows 7.x GIS and Client Compatibility.

Table 37: GIS-Client Compatibility

GIS Version	Connector	Prop Protocol			SOAP		
		Proxy 7.1	**Proxy 7.2**	**Proxy 7.5**	**Proxy 7.1**	**Proxy 7.2**	**Proxy 7.5**
7.1	.NET Svr	yes	no [a]	no [a]	N/A		
	GIS	N/A			yes	no	no
7.2	GIS GSAP	yes [b]	yes	yes	N/A		
	GIS SOAP	N/A			yes [b]	yes	no
7.5	GIS GSAP	yes [b]	yes	yes	N/A		
	GIS SOAP	N/A			yes [b]	yes	yes

a. Protocol reason.

b. New 7.2 and 7.5 functionality will not be accessible in this combination. You will need to perform some development on the customer application. In order to gain access to GIS features that are available only after the initial 7.1 release, for instance, new methods, you need to use GIS: Proxies that correspond to that later GIS release. In fact, this rule applies in all cases where the GIS version is higher than the proxy version being used for a client. (See GIS Release Notes for more details.)

System Requirements for 7.2 (or later)

For hardware and software requirements for the GIS server, see the *Genesys Supported Operating Environment Reference Guide*.

For supported development tools, see the corresponding version of the *Genesys Integration Server 7.x Deployment Guide*.

System Requirements for 7.1

For hardware and software requirements for the GIS server, see the *Genesys Supported Operating Environment Reference Guide*.

For supported development tools, see the *Genesys Developer Program 7.1 Genesys Interface Server Deployment Guide*.

System Requirements for 7.0

For hardware and software requirements for the GIS server, see the *Genesys Supported Operating Environment Reference Guide*.

For supported development tools, see the *Genesys Developer Program 7 Genesys Interface Server Deployment Guide*.

GIS Migration 7.5 to 7.6

If you are upgrading from GIS 7.5, you can install Genesys Integration Server 7.6:

- As a maintenance upgrade for GIS 7.5.

  In this case, you keep your existing 7.5 Configuration Layer application, and point to it when running the GIS 7.6 installation package. Select the GIS 7.6 installation type that matches your 7.5 product: SOAP Standalone, SOAP Web Module, or GSAP.

  This migration procedure will create an instance of GIS 7.6 with the same level of functionality as its 7.5 predecessor. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability. See Genesys Documentation website at http://docs.genesys.com/.

- To implement new 7.6 features.

  First, install a GIS 7.6 application template, then a new application based on that template. Finally, run the GIS 7.6 installation package, selecting the connector type (SOAP Standalone, SOAP Web Module, or GSAP) that matches your 7.6 product. For details, see the *Genesys Integration Server 7.6 Deployment Guide*.

  Note: To implement new 7.6 features, you can keep your existing 7.5 Configuration Layer application. Deleting it is optional.

GIS Migration 7.2 to 7.5 (or later)

If you are upgrading from GIS 7.2, you can install Genesys Integration Server 7.2 for either of two purposes:

- As a maintenance upgrade for GIS 7.2.

  In this case, you keep your existing 7.2 Configuration Layer application, and point to it when running the GIS 7.5 installation package. Select the

GIS 7.5 installation type that matches your 7.2 product: SOAP Standalone, SOAP Web Module, or GSAP.

Under this migration path, GIS 7.5 will provide the same level of functionality as its 7.2 predecessor. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.

- To implement new 7.5 features.

  First, install a GIS 7.5 application template, then a new application based on that template. Finally, run the GIS 7.5 installation package, selecting the connector type (SOAP Standalone, SOAP Web Module, or GSAP) that matches your 7.2 product. For details, see the *Genesys Integration Server 7.5 Deployment Guide*.

Note: To implement new 7.5 features, you can keep your existing 7.2 Configuration Layer application. Deleting it is optional.

GIS Migration 7.0 or 7.1 to 7.2 (or later)

If you are upgrading from GIS or Genesys .NET Server 7.0 or 7.1, you can install Genesys Integration Server 7.2 for either of two purposes:

- As a maintenance upgrade for GIS or .NET Server 7.0 or 7.1.

  In this case, you keep your existing 7.0 or 7.1 Configuration Layer application, and point to it when running the GIS 7.2 installation package. Select the GIS 7.2 installation type that matches your 7.0 or 7.1 product: SOAP Standalone or SOAP Web Module as an upgrade for GIS 7.0/7.1, or GSAP as an upgrade for .NET Server 7.0/7.1.

  Under this migration path, GIS 7.2 will provide the same level of functionality as its 7.0/7.1 predecessor. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability. See Genesys Documentation website at http://docs.genesys.com/.

- To implement new 7.2^{+} (or later) features.

  First, install Configuration Server 7.2^{+}, then a GIS 7.2^{+} application template, then a new application based on that template. Finally, run the GIS 7.2^{+} installation package, selecting the connector type (SOAP Standalone, SOAP Web Module, or GSAP) that matches your 7.0 or 7.1 product. For details, see the *Genesys Integration Server 7.2 Deployment Guide* (or later).

GIS Migration 6.5.1 to 7.x

This section presents step-by-step instructions for migrating from GIS 6.5.1 to a 7.x release.

Migration Paths

You have two migration paths:

- You can install GIS 7.x over your current 6.5.1 version of GIS, and either use your 6.5.1 application or (to implement newly available features) import the new application template and create a new application.
- You can uninstall your current version of GIS, and perform a fresh installation of GIS 7.x. For instructions, see the *Deployment Guide* for your target version of GIS. You can use your existing 6.5.1 GIS application with GIS 7.x, or (to implement newly available features) import the new application template and create a new application.

Warning! If you are deploying GIS with the WebSphere application server, Genesys recommends that you uninstall GIS 6.5.1 and perform a completely new deployment, including creation of a 7.x application.

Installation Wizard

The installation wizard sets the Configuration Server host name, Configuration Server port, and GIS application name. If you experience some problem during the installation, update the startup files for your system type with the correct Configuration Server host name, port number, and GIS application name:

- For Windows systems, the startup file is named `run_gis.bat`, `run_gis_soap.bat`, or `startServer.cmd`.
- For UNIX-based systems, the startup file is named `run_gis.sh`, `run_gis_soap.sh`, or `startServer.sh`.

If you left all application option settings at the default values, and your client application does not require legacy options that no longer exist in the target version, no further configuration is required. Your migration is complete.

You might choose to update your Configuration SDK client application to take advantage of new functionality. See “6.5.1 to 7.x Configuration API” on page 259 for more information.

Start and Test GIS

In the *Deployment Guide* for your target version of GIS, see the “Start and Test GIS” chapter for instructions on starting GIS and testing your installation.

GIS Migration 6.1 or 6.5.0 to 7.x

This section presents instructions for migrating from GIS 6.1 or 6.5.0 to a GIS 7.x release. Strictly speaking, there is no migration from 6.1 or 6.5.0 to 7.x. You must entirely remove GIS 6.1 or 6.5.0, and install GIS 7.x using the procedures for a new installation. These procedures are documented in the *Genesys Integration Server 7.2 Deployment Guide* (or, for version 7.0 or 7.1, the *Genesys Developer Program 7.1 Genesys Interface Server Deployment Guide*).

To Remove GIS 6.1 or 6.5

- On Windows platforms, use the Add/Remove Programs utility to uninstall the 6.1/6.5.0 version of GIS.
- On UNIX-based platforms, delete all folders containing the GIS files.

To Install GIS 7.x

- Install and configure the 7.x version of GIS, importing the new template and configuring it as described in the appropriate version of the *Deployment Guide.*

Note: Starting with release 6.5.1, GIS used a new application type in the Configuration Database. Therefore, to use GIS 7.0 or 7.1, you must upgrade your Configuration Database and Configuration Server to version 6.5 or higher.

Start and Test GIS

In the *Deployment Guide* for your target version of GIS, see the "Start and Test GIS" chapter for instructions on starting GIS and testing your installation.

Update Your Client Application

Because the GIS 7.x API is not compatible with the 6.1/6.5.0 API, you must rewrite your client application.

For assistance in understanding the differences between 6.1/6.5.0 and 7.x:

- See "Options Tab Option Changes" on page 249 for removed and added configuration options.
- See "6.1 and 6.5.0 to 7.x Statistics API" on page 253 for changes to the API.

Changes to GIS Application Options

This section documents the differences between the 6.1/6.5.0 and the 6.5.1/7.x application options, and provides instructions for making changes to your GIS application settings.

Options Tab Option Changes

Table 38 on page 249 shows the changes made to the GIS application options from 6.1/6.5.0 to 6.5.1. The section "restriction_time" on page 249 outlines a change made from 6.5.1 to 7.x.

Note: Table 13 only shows changes that affect the Statistics API. A number of options were also added for the new Configuration API.

Table 38: GIS Application Options Changes

GIS 6.1 and 6.5.0 Section	Option	Default Value	GIS 6.5.1 Section	Option	Default Value
License	license-file	name of customer license file	**License**[a]	license-file	name of customer license file
Logs	various options	various values	**Logs**[b]	various options	various values
service_statistic	restriction_time	10	**SessionService**	sessionTimeout	3600
			StatService	ScopeStatEvents	15

a. No change from 6.1, 6.5.0, or 6.5.1 to 7.x.

b. No change from 6.1, 6.5.0, or 6.5.1 to 7.x.

sessionTimeout

If you are already using a custom `sessionTimeout` option or you want a `sessionTimeout` value other than the default (`3600 seconds`), enter the desired value for this option.

ScopeStatEvents

If you are already using a custom `ScopeStatEvents` option or you want a value for `ScopeStatEvents` other than the default (the last `15` interactions), enter the desired value for this option.

restriction_time

If you require the `restriction_time` option: In version 6.5.1, this option was located in the `service_statistic` section. In versions 7.x, it is located in the `StatService` section. If necessary, add this option to the new section as follows:

1. On the Application object's `Options` tab, right-click in the `StatService` section, and select `New` from the shortcut menu that opens.

2. Enter `restriction_time` in the `Option Name` field.
3. Set the value of this option to your previous `restriction_time` value.
4. Delete your original `restriction_time` entry in the `service_statistic` section.

error_check

If you require the `error_check` option, which does not exist in 6.1, you must add it to the GIS application. To add this option:

1. Right-click in the `StatService` section of the Application object `Options` tab and select `New` from the shortcut menu that opens.
2. Enter `error_check` in the `Option Name` field.
3. Set the new `error_check` value to the previous-`error_check` value (the default value is `true`).

> **Note:** If you are migrating from a pre-6.5.000.09 version, you will not have a previous-`error_check value (the` option was introduced in release 6.5.000.09). In this scenario, set `error_check` to `true`.

Changes to Error Messages 6.5.1 to 7.x

Genesys has changed the text of certain error messages between GIS 6.5.1 and GIS 7.x, with the goal of making these messages more specific and complete. If your client applications take actions that trigger off these exception strings, you will need to change the triggers in your code.

Table 39 presents the text of error messages in GIS 6.5.1 and GIS 7.x. Shaded rows indicate messages whose text has changed between these versions.

Table 39: Error Messages Changed Between GIS 6.5.1 and GIS 7.x

Error Condition	Response in GIS Version 6.5.1.000.14	Response in GIS Version 7.x
Browse services with a bad session ID	Session unknow	Unknown session
Get service with bad service list	Bad Service List: License checkout SessionService:1126616496563H3:: GIS_STASVICE NOK: License server does not support this feature(-18,147)	bad list: Checking out feature GIS_STASVICE in 7260@frbred0059407: License server does not support this feature(-18,147)
Get service with bad SID	Session unknow	Unknown session
Login with bad password	Login <user_login> incorrect	Authenticate: Password is incorrect

Table 39: Error Messages Changed Between GIS 6.5.1 and GIS 7.x (Continued)

Error Condition	Response in GIS Version 6.5.1.000.14	Response in GIS Version 7.x
Login with unknown user	java.lang.Exception: User unknown	Authenticate: User not found
Call to a bad service target	Service not found	Service not found
Logout with bad SID	getAttribute: Session doesn't exist	getAttribute: session doesn't exist
Release services with a bad service list	Bad Service List: License checkout SessionService:1126616499735H9:: GIS_STATSECE NOK: License server does not support this feature(-18,147)	bad list: Checking out feature GIS_STATSECE in 7260@frbred0059407: License server does not support this feature(-18,147)
Release services with a bad session ID	Session unknow	Unknown session
Retrieve profile with a bad profile type	java.lang.IllegalStateException	java.lang.IllegalStateException
Subscribe Statistic with bad notification mode	java.lang.IllegalStateException	java.lang.IllegalStateException
Subscribe Statistic with bad object ID	Agent 'bad_object_id' (Tenant '<TenantName>') not found	java.rmi.RemoteException: Agent 'bad_object_id' (Tenant '<TenantName>') not found
Subscribe Statistic with bad object type	java.lang.IllegalStateException	java.lang.IllegalStateException
Subscribe Statistic with bad resource	Session unknow	Unknown session
Subscribe Statistic with bad SID	Session unknow	Unknown session
Subscribe Statistic with bad statistic name	Supplied Stat Type name not known on server side.	java.rmi.RemoteException: Supplied Stat Type name not known on server side.
Retrieve Subscribed Statistic (timeout test)	timeout	java.rmi.RemoteException: timeout
Retrieve Subscribed Statistic without statistic ID	bad references	java.rmi.RemoteException: bad references
Retrieve Subscribed Statistic with good parameters	Session unknow	Unknown session

Table 39: Error Messages Changed Between GIS 6.5.1 and GIS 7.x (Continued)

Error Condition	Response in GIS Version 6.5.1.000.14	Response in GIS Version 7.x
Retrieve Subscribed Statistic with bad statistic ID	bad references	java.rmi.RemoteException: bad references
Retrieve Subscribed Statistic with good parameters	java.lang.IllegalStateException	java.lang.IllegalStateException
Subscribe Statistic without statistic ID	StatisticId parameter is empty	java.rmi.RemoteException: StatisticId parameter is empty
Subscribe Statistic with bad notification mode	java.lang.IllegalStateException	java.lang.IllegalStateException
Subscribe Statistic with bad resource	subscribe statistic	java.rmi.RemoteException: Stat Server error [no server defined]
Subscribe Statistic with bad SID	Session unknow	Unknown session
Subscribe Statistic with bad statistic name	OpenStat: Supplied Stat Type name not known on server side.	java.rmi.RemoteException: OpenStat: Supplied Stat Type name not known on server side.
Subscribe Statistic with bad tenant	OpenStat: Tenant '<bad_tenant_name>' not found	java.rmi.RemoteException: OpenStat: Tenant '<bad_tenant_name>' not found
Subscribe Statistic with a bad tenant name	OpenStat: Tenant '<bad_tenant>' not found	java.rmi.RemoteException: OpenStat: Tenant '<bad_tenant>' not found
Subscribe Statistic with bad time interval name	java.lang.IllegalStateException	java.lang.IllegalStateException
Subscribe Statistic with inexistant object ID	OpenStat: Agent 'inexistant_object' (Tenant '<TenantName>') not found	java.rmi.RemoteException: OpenStat: Agent 'inexistant_object' (Tenant '<TenantName>') not found
Try to retrieve an unsubscribed statistic	bad references	java.rmi.RemoteException: bad references
Unsubscribe Statistic with bad session ID	Session unknow	Unknown session

Table 39: Error Messages Changed Between GIS 6.5.1 and GIS 7.x (Continued)

Error Condition	Response in GIS Version 6.5.1.000.14	Response in GIS Version 7.x
Unsubscribe Statistic with bad statistic ID	StatId not found	java.rmi.RemoteException: StatId not found
Login with bad tenant	java.lang.Exception: Bad Tenant	[Not applicable: Login succeeds if user belongs to the Configuration Layer.]

Key:	Message change	No message change

6.1 and 6.5.0 to 7.x Statistics API

Note: The 6.5.1 and 7.x APIs are fully compatible. If your current statistics-gathering application uses the 6.5.1 API, you can disregard this section.

The 6.1/6.5.0 Statistics API, which was retained in the 6.5.1 release, is no longer available in releases 7.x. This section provides a brief overview of the differences between the 6.1/6.5.0 and 7.x Statistics APIs.

Warning! To migrate from release 6.1/6.5.0 to a 7.x release, you must rewrite your statistics-gathering application.

To fully understand the nature of the differences between 6.1/6.5.0 and 7.x:

- Compare the API information in the *6.1 G*plus *Foundation Real-Time Statistics API Developer's Guide* with that in the target version's *Statistics SDK Developer's Guide* and *API Reference* (or *Reference Manual*).
- Compare the 6.1 code samples, which are installed from the 6.1 G*plus* Foundation Real-Time Statistics API DVD, with the code examples for the 7.x release, which are located on the Documentation Library DVD.

Note: All documents are available on the Technical Support website and on the Documentation Library DVD (for versions through 7.1) or the Genesys Developer Documentation Library DVD (for version 7.2). The 7.0 and 7.1 code examples are only on the Documentation Library DVD. The 7.2 and 6.1 code samples are located on the software DVD.

Use the *Statistics SDK Developer's Guide*, and the associated code examples, to guide you in your development of your new statistics-gathering application.

Take Advantage of New Features

Although session and configuration information retrieval have changed, the 7.x Statistics API interface uses the same statistical request operations as the 6.1/6.5.0 API. However, changes to the data types included in these operations make it possible to retrieve much more complex information than previously. Genesys recommends that you carefully review the Statistics SDK documentation when designing your new application to take full advantage of the improvements in the 7.x interface.

Review the 7.x WSDL Files

To be certain that you take account of all changes from 6.1/6.5.0 to 7.x, base your development on the latest version of the GIS APIs, as documented in the Statistics, Session, and Configuration WSDL (Web Services Description Language) files.

Note: To generate these files, see the instructions in the *Deployment Guide* for your target version of GIS.

Namespaces, bindings, the port type, and the service name have changed, as have the operations (and their associated messages) and the data types. Operation (method) changes and data type changes are described in the sections below.

Changes to Statistics API Methods from 6.1 and 6.5.0 to 7.x

The main statistics-gathering methods, `retrieveStatistic`, `subscribeStatistic`, `retrieveSubscribedStatistic`, `retrieveStatisticalProfile`, and `unsubscribeStatistic`, remain unchanged. However, the two new APIs, Session and Configuration, have taken over certain functionality formerly provided by the 6.1/6.5.0 Statistics API.

Functions Now Performed by the Session API

The Session API handles login, logout, and license verification for all GIS-based SDKs. The following Session API methods are new:

- `login`
- `getService`
- `browseService`
- `releaseService`
- `logout`

They replace these discontinued Statistics API methods:

- `Login`
- `Logout`
- `SessionUpdate`

For details, see the *Statistics SDK API Reference* (or *Statistics SDK Web Services API Reference*) chapter entitled "Using the Session API."

Functions Now Performed by the Configuration API

Configuration information, formerly available using the `retrieveConfiguration` method in the 6.1/6.5.0 Statistics API, is now provided by the Configuration API. This API is presented by the SOAP interface of either a release 7.x master Configuration Server, or a release 7.x or 6.5 Configuration Server Proxy (CS Proxy). GIS tunnels configuration request messages to the specified Configuration Server or CS Proxy SOAP interface, which returns information on the requested configuration objects.

Prerequisites for Using the Configuration API

1. To retrieve configuration information, you must be able to send configuration request messages to a Configuration Server, version 7.x, or to a CS Proxy, version 6.5 or higher.
2. You must configure the `soap` section of the `confserv.cfg` file for your Configuration Server/CS Proxy. For details, see the "Configure the Configuration Server SOAP Port" section in the "Configure and Install GIS" chapter of the *Deployment Guide* for your target version of GIS.

Current Configuration API Methods

A subset of Configuration API methods, listed below, are available to users without a Configuration SDK license. They effectively provide read-only configuration information. To use the whole set of Configuration API methods, you must acquire a Configuration SDK license.

If you do not have a Configuration SDK license, use these messages to retrieve configuration information:

- `refresh`
- `get`
- `getex`
- `getVersion`

For details on how to use these methods, see the chapter, "View Configuration Methods," in your *Statistics SDK Web Services API Reference* or *Statistics SDK Reference Manual*.

Changes to Statistics API Types

Data types specify the precise content and format of the information you must submit to GIS and that you can expect to receive back. Therefore, changes in data types affect the content of your requests to the Statistics API.

Some of these changes are additions and deletions from the list of types. However, in some cases, the data within a type has changed.

Warning! If you plan to reuse any code sections from your previous application, the revised version must reflect changes to the data types.

Full information about new and changed types appears in your *Statistics SDK Web Services API Reference* or *Statistics SDK Reference Manual*.

Simple Types

Table 40 presents all additions, removals, and changes to Statistics API simple types between 6.1 and 7.x.

Table 40: Changes to Simple Types

Name	Change	Description
eventValueTypeType	No change	Not applicable
objectType	No change	Not applicable
requestReference	Removed	Not applicable
rfc2254	Removed	Not applicable
statisticalProfileType	No change	Not applicable
timeIntervalType	No change	Not applicable
notificationMode	Added	Specifies Polling or Blocked mode
scheduleMode	Added	Specifies when a statistic is to be updated
statisticStateType	Added	Indicates the status of a specified object

Complex Types

Table 41 presents all additions, removals, and changes to Statistics API complex types between 6.1 and 7.x.

Table 41: Changes to Complex Types

Name	Change	Description
actions	No change	Not applicable
arrayOf_subscription	Added	An array of elements of the `statisticSubscription` type
configurationRequest	Removed	Not applicable
eventValue	Changed	• The `unknownValue` element has been removed. • The `sValue` element has been added. • The `stateValue` element has been added. This element is not currently used. Its value is always `null`.
eventValues	Added	An array of `eventValue` values
identity	Removed	Not applicable
loginResponse	Removed	Not applicable
metric	No change	Not applicable
notification	Changed	• The `mode` element now contains a `notificationMode` value. • The `timeout` element has been added.
objectIdType	No change	Not applicable
objectTypes	Added	An array of `objectType` values
parameter	No change	Not applicable
parameters	No change	Not applicable
profileInfo	No change	Not applicable

Table 41: Changes to Complex Types (Continued)

Name	Change	Description
retrieveConfiguration Response	Removed	Not applicable
retrieveStatisticalProfile Response	Changed	The `reference` element has been removed.
retrieveStatisticResponse	Changed	The `reference` element has been removed.
retrieveSubscribedStatistic Response	Changed	The `reference` element has been removed.
schedule	Changed	• The `notificationMode` element now consists of a `scheduleMode` value rather than a string value. • The `timeout` element has been added. • The `insensitivity` element has been added.
statistic	No change	Not applicable
statisticInfos	Changed	This is now an array of `statisticTypeInfoType` values.
statisticState	Added	Not currently used
statisticStateData	Added	Not currently used
statisticStates	added	Not currently used
statisticSubscription	No change	Not applicable
statisticSubscriptions	Changed	This now takes an `ArrayOf_subscription` value.
statisticType	No change	Not applicable
statisticTypeInfoType	Changed	The `objectType` element has been replaced by the `objectTypes` element.
statisticValue	Changed	The `eventValue` element has been replaced by the `eventValues` element.

Table 41: Changes to Complex Types (Continued)

Name	Change	Description
statisticValues	No change	Not applicable
timeInterval	No change	Not applicable
timeProfile	No change	Not applicable
timeProfiles	No change	Not applicable
timeRangeType	No change	Not applicable
unsolicitedNotification	Added	Specifies the URL to which GIS sends automatic notification of statistics updates

6.5.1 to 7.x Configuration API

This section summarizes the key changes in the Configuration API from 6.5.1 to 7.x.

To fully understand the nature of the differences, compare the API information in the *6.5 Genesys Configuration SDK Developer's Guide* and *Reference Manual* with that in the target version's *Configuration SDK Developer's Guide* and *API Reference* (or *Reference Manual*).

Note: All these documents are available on the Technical Support website and on the Documentation Library DVD or Developer Documentation Library DVD.

New Configuration Server SOAP Interface

If you are using Configuration Server 7.x, you can request configuration information from a Configuration Server that has been set up as either a master or a proxy. In 6.5, the necessary SOAP interface was available only through CS Proxy.

For instructions on setting up the SOAP port for either Configuration Server or CS Proxy, see the *Deployment Guide* for your target version of GIS

For more information on Configuration Server and CS Proxy, see the *Framework 7.x Deployment Guide*.

Unregister Operation

While most of the operations and data types remain the same, release 7.x includes the new `unregister` operation, which performs the following actions:

- Logs your client out of Configuration Server.
- Cancels all active subscriptions for notifications.
- Closes the HTTP session.

You should use this operation to complete each session.

Unsolicited Notification

The 7.x Configuration API includes the new unsolicited notification functionality, which enables you to have Configuration Server (not necessarily GIS—there may be a direct link for unsolicited notifications) send updates on configuration objects to which you have subscribed without your application having to explicitly request them each time.

For information on implementing this feature, see the *Configuration SDK Developer's Guide* and its associated code examples, which are available on the Documentation Library DVD or on the Developer Documentation Library DVD.

Part

3 Reporting Migration

This section provides general instructions for migrating installations of the following Reporting software to release 8.1.*x*:

- Contact Center Analyzer (CC Analyzer)
- Call Center Pulse (CCPulse+)

Note: Genesys Reporting 8.1.*x* comprises CCPulse+ 8.1.*x* and CC Analyzer 8.1.*x*.

This section also provides information about the release 6.5 Reporting Service Pack—a utility for migrating Reporting templates from pre-6.5 versions to release 6.5. Additionally, it discusses important issues to consider before you convert your data.

The information is divided into the following chapters:

- Chapter 14, "Introduction to Reporting Migration," on page 263 discusses preliminary migration procedures and issues to consider when planning a Reporting migration.
- Chapter 15, "Changes in Reporting," on page 277 provides information for upgrading Reporting components and configuration options from releases 6.*x* to 8.1.*x*. This section discusses changes (additions, deletions, and modifications) that you must make during migration.
- Chapter 16, "Reporting Migration Procedures," on page 307 discusses migrating pre-8.1 releases of CC Analyzer to 8.1.x and migrating pre-*8.0* releases of CC Pulse/CCPulse+ to releases 8.1.x.
- Chapter 17, "Reporting Service Pack 6.5," on page 313 provides information for administrators who deploy this migration utility and use it to migrate Reporting templates to release 6.5.

Note: The *Genesys Migration Guide* does not duplicate configuration and installation information that is documented in the *Reporting Deployment Guide.*

Genesys encourages you to contact Genesys Technical Support for assistance with the following:

- Migration in nonstandard environments, for example:
  - Using CC Analyzer in an unconventional way
  - Using the product on unsupported platforms
  - Altering the structure of your Operational Data Storage (ODS) and/or Data Mart
  - Customizing the Genesys-provided templates
- Understanding which versions of SAP Crystal Reports or Hyperion software are interoperable with your release of CC Analyzer.

You should also contact Genesys Technical Support if you encounter any problems with the previously summarized standard migration.

Chapter

14 Introduction to Reporting Migration

This chapter discusses the preliminary migration procedures and includes important considerations for when you plan a Reporting migration, including:

- Implementation considerations.
- Architectural differences.
- Configuration and installation issues.
- Framework issues.
- Template and report issues.

This chapter contains the following sections:

Preliminary Migration Procedures

Note: If you need to upgrade your operating system, the general recommendation is to do the upgrade before you migrate your Genesys product. Refer to the *Genesys Supported Operating Environment Reference Manual* for the complete list of operating systems and database systems that are supported.

The migration process for Reporting 1.*x* includes the following preliminary procedures:

1. Review Chapter 1, "Migration Roadmap," of this guide.
2. See Chapter 16, "Reporting Migration Procedures," on page 307 of this guide for a description of the upgrade order.

3. Review the licensing requirements for Framework 8.*x*. See Chapter 2, "Licensing Migration" of this guide.
4. Review the section "Migration Considerations" on page 265 of this chapter for Reporting 8.0.1.
5. Examine the section "Changes in Release Content" on page 277.
6. Study the section "Changes to Configuration Options and Runtime Parameters" on page 287.
7. See also the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.

Reference Materials

You might find these other manuals useful during migration:

- *Genesys Licensing Guide,* for information about changes in licensing
- *Reporting 8.1 Deployment Guide,* for configuration and installation procedure
- *Reporting Technical Reference Guide,* for descriptions of report templates. Beginning with release 7.6, the *Reporting Technical Reference Guide* has been divided into a series of four books. The latest version of these books is the following:
  - *Reporting Technical Reference 8.0 Overview*
  - *Reporting Technical Reference 8.0 Solution Reporting Templates*
  - *Reporting Technical Reference 8.0 Customization*
  - *Reporting Technical Reference 7.6 Data Mart Conceptual Data Model*
- *Reporting 8.1 CCPulse+ Administrator's Guide,* for information about CCPulse+ configuration options
- *Reporting 7.6 Data Sourcer User's Guide*, for information about Data Sourcer configuration options
- *Reporting 7.6 ETL Runtime User's Guide,* for information about ETL Runtime configuration options
- *Reporting 8.0 Reference Manual*, for information about Reporting performance
- *Genesys Interoperability Guide,* for information about the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability

Migration Considerations

Before you migrate your environment, consider the:

- Architectural and feature differences between the releases.
- Supported versions of relational database management systems (RDBMSs) on which you can run the provided upgrade scripts.
- Changes that are made to both your data and database structure as a result of running the upgrade scripts.
- Impact on your customized reports following a successful migration.

These and other issues are discussed in a general fashion in this section. To perform the actual migration, refer to Chapter 16, "Reporting Migration Procedures," on page 307.

Contact Genesys Technical Support for migration issues that are not addressed in this chapter and for *nonstandard environments.*

When you have successfully migrated your Reporting environment, Genesys strongly recommends that you cease using prior versions of the Reporting software. Refer to the current Reporting documentation set for information on how to operate CC Analyzer and CCPulse+.

Implementation Considerations

Develop an implementation strategy for migrating your Reporting environment along with Genesys Framework and other Genesys solution migrations. This approach is especially important if the Reporting environment is distributed over several Data Marts or if more than one person is to perform the migrations. In defining an implementation strategy, ask the following sorts of questions:

- When will your Genesys Framework environment be migrated?
- Must you migrate your Framework environment for CCPulse+?
- Will you conduct a phased rollout of Reporting, or will you roll it out all at the same time?
- Do you intend to stage the migration or conduct a pilot? How will you verify its results—its reports?
- Did you customize the solution-provided reports?
- What is your current system's configuration and does Genesys now support it? Have you upgraded elements of your network since your first purchase? What version is your current operating system? What version is your current relational database management system (RDBMS)?
- Have you identified every ODS and Data Mart in your Reporting environment that you intend to convert?
- Do you have the resources to back up all required data?

- Do you have any customized scripts or processes, outside of Genesys Reporting, that depend on the names of your layout templates?
- When will you migrate your other Genesys solution environments?
- How will you transfer knowledge to other implementation teams?

Here are some guidelines to help you answer these questions:

- In general, Genesys recommends that you migrate Reporting *after* your Genesys Framework migration. In a Reporting environment that has several Data Marts, the minimum set of components for rolling out Reporting in stages constitutes one Data Mart and *all* of its constituent ODSs. *Do not start* either ETL Runtime's Transformation or Aggregation modules until you have completely and successfully converted all data for every ODS that is writing to ETL Runtime's Data Mart.
- To verify your reports, transfer all pending data from the Data Sourcer emergency-save file and ODSs to the Data Mart before you migrate your Reporting environment.

  If you are using an environment prior to 7.2, this step includes:
  - Extracting data from the emergency-save file to a SQL file.
  - Executing the SQL file to transfer the saved data to ODS.
  - Transforming and aggregating all ODS data using ETL Runtime.
  - Recreating tenant accounts (for multi-tenant environments).

  If you are using a 7.2 or greater environment, use the following steps:
  a. Stop both Data Sourcer and ETL runtime
  b. Deactivate all layouts
  c. Start Data Sourcer and let it write all files in the emergency save directory to the ODS
  d. Stop Data Sourcer
  e. Start ETL runtime and allow it to aggregate all data into the Data Mart
  f. Recreate tenant accounts (in the multi-tenant environment)

  Run and store the results of a set of reports using various aggregation levels; then, migrate your environment and rerun the same set of reports, but using the new 6.*x* (or 7.*x*) templates (.bqy files). Your results should match.

Note: Unless you transfer and aggregate all pending data, 6.*x* and 7.*x* reports may report different statistical values than the reports run in a previous release. The difference is visible with the most recent aggregation levels: for example, for the very last hour of the Daily report.

Architectural Differences

This section discusses the architectural differences between releases 6.*x* and 8.1.*x* for Solution Reporting.

Note: In this section, architectural differences refer to differences in the structure and organization of Genesys software.

CC Analyzer

CC Analyzer 8.1

- There are no changes between CC Analyzer 8.1 and 7.6.1.

CC Analyzer 7.6.1

- The SAP Crystal Reports [version 14] are packaged with CC Analyzer 7.6.1 instead of Hyperion Interactive Reporting 11.1.2.
- CC Analyzer 7.6.1 provides CCA Reporting Templates 7.6.1 for SAP Crystal Reports only. Report templates for Hyperion Interactive Reporting are no longer available.
- Starting with CC Analyzer 7.6.1, Report Generation Assistant (RGA with Hyperion Interactive Reporting) is no longer available. The former document, *Reporting 7.2 Report Generation Assistant User's Guide,* is no longer published.

CC Analyzer 7.6

- CC Analyzer 7.6 components recognize and process instant-message interactions that originate from a SIP Server.
- CC Analyzer 7.6 features 7.6 reporting templates and Report Generation Assistant (RGA) 7.6 with Hyperion Interactive Reporting 11.1.2.
- CC Analyzer 7.6 supports 7.2 reporting templates and RGA 7.2, with Hyperion Performance Suite 8.5.0.3 only.
- Support for the operation of Data Sourcer in cartridge mode (otherwise known as IS Data Sourcer) has been discontinued.
- Starting with Reporting Templates release 8.0, Report Generation Assistant (RGA) installation package is distributed on the Reporting Templates product CD; previously, it was part of the Reporting product CD. For more information about creating reports, see the *Reporting Technical Reference Overview.*

Note: The Hyperion Interactive Reporting 11.1.2 product is part of Oracle Enterprise Performance Management System Release 11.1.2 (which was formerly called the Hyperion Performance Suite).

CC Analyzer 7.2.1

There are no architectural differences between CC Analyzer 7.2.1 and previous releases of CC Analyzer.

The Hyperion Performance Suite 8.5.0.3 is packaged with CC Analyzer 7.2.1.

CC Analyzer 7.2

High Availability of historical reporting data has been implemented in CC Analyzer and CCPulse+ by using a pair of Data Sourcer applications that operate in `hot standby` mode and a pair of Stat Servers that operate in special `warm standby` mode.

The Hyperion Performance Suite 8.5.0.2. is packaged with CC Analyzer 7.2.

CC Analyzer 7.1 There are no architectural differences between CC Analyzer 7.1 and previous releases of CC Analyzer.

CC Analyzer 7.0 CC Analyzer introduced no architectural changes. However, the Hyperion Performance Suite 8.3, instead of Brio 6.6, comes packaged with the 7.0.2 release. Brio Technology was acquired by Hyperion Solutions Corporation, and the Hyperion Performance Suite is Hyperion's improved version of Brio. No changes were necessary to Report Generation Assistant, which is powered by this third-party software.

CC Analyzer 6.5 CC Analyzer Data Sourcer and CC Analyzer Data Mart components service both CC Analyzer and CCPulse+; component names are again named Data Sourcer and Data Mart, without any prefix.

To clarify which Data Sourcer component is being discussed in the 6.5 documentation set, references to "the Stat Server–based Data Sourcer" or "IS Data Sourcer" are used. All other components that belong to the Data Collection Services or Data Mart Services also serve CCPulse+ and have been appropriately renamed.

CC Analyzer 6.1 New functionality was added to CC Analyzer that:

- Required more of a change in the metadata that is stored in the ODS and Data Mart databases than a change in table structure (although table structures did change, too).

  See the *Reporting 6.1 Data Mart Conceptual Data Model* for a complete description of Data Mart schema.
- Introduced the CCA Starter application and ETL-Proxy Application object to the Configuration Server to control the execution of the various ETL Runtime modules.

  See the *Reporting 6.1 ETL Runtime User's Guide* and the *Reporting 6.1 Starting and Stopping Procedures* document for more information about CCA Starter.

  This information can also be found in the latest version of the *Reporting ETL Runtime User's Guide* and the *Reporting Deployment Guide*.

Installing New Applications Given Existing Objects

Note: Genesys Framework also underwent architectural changes from its previous release—most significantly, the introduction of the Management Layer and Solution Control Interface (SCI) that allow you to control, monitor, start, and stop Genesys solutions and their components from one location. See Part 2 of this guide for a discussion of Framework changes between the releases and for migration procedures.

CC Pulse/CCPulse+

Note: Genesys recommends that you use the latest generally available release of CCPulse+, and that you *not* use different releases of CCPulse+ simultaneously.

CCPulse+ 8.1.0 There are no architectural changes between CCPulse+ 8.1.0 and CCPulse+ 8.0.1.

CCPulse+ 8.0.1 There are no architectural changes between CCPulse+ 8.0.1 and CCPulse+ 8.0.0.

CCPulse+ 8.0 The query feature that was added in release 7.2 to access data from a Genesys Info Mart has been discontinued in this release.

New performance-improved storage types are supported, while support for the legacy CCPulse+ 7.*x* storage files remains. New performance-improved Grid View with flexible display options is provided.

CCPulse+ 7.5 There are no architectural differences between CCPulse+ 7.5.*x* and the 7.2.*x* releases of CCPulse+.

CCPulse+ 7.2 CCPulse+ 7.2 added the capability to query the Genesys Info Mart database to produce query-based reports. The functionality requires Genesys Info Mart release 7.2.

CCPulse+ performance also was improved. A larger number of objects can now be monitored and sorted in a single view.

CCPulse+ 7.1 There are no architectural differences between CCPulse+ 7.1 and CCPulse+ 7.0.

CCPulse+ 7.0 In release 7.0, changes were introduced to support more sophisticated printing capabilities, advanced view and workspace management, and custom formula statistics.

CCPulse+ 6.5 Release 6.5 presented a significant architectural change: The application connects to Stat Server (as before) for real-time data, but connects to a Data Mart for historical data. Because of this significant change in functionality the name was changed from CC Pulse to CCPulse+, which suggests its former purpose plus its new historical twist. All solution-provided CCPulse+ templates (with the exception of DNView) were modified to associate a historical column in the Data Mart with its real-time equivalent.

See the “CCPulse+ Metrics” section of the “Understanding the Out-of-Box Templates” chapter in the *Reporting Technical Reference Guide* to see how CCPulse+ matches real-time and historical metrics.

CC Pulse 5.1 to 6.1 From an architectural point of view, there were no significant changes in CC Pulse between the first release in Reporting 5.1 and the 6.1 release.

Configuration and Installation Issues

Inactivity Timeout

Starting CCPulse+ 8.0.1 you can configure inactivity timeout for the CCPulse+ application.

Secure Connections

Starting CCPulse+ 8.0.1 you can configure secure connections between CCPulse+ and involved servers, like Configuration Server, DB Server and StatServer.

Security Banner

Starting with Reporting 8.0, you can configure a dialog box or series of dialogs boxes to prompt users to accept or reject conditions of use of the application before the application is invoked.

Data Sourcer Uses Configuration of Other Applications

Starting with Data Sourcer 7.2, in addition to its own configuration (specified in the Data Sourcer `Application` object), Data Sourcer reads information about the configuration of the associated database access point `Application` object to determine how Data Sourcer will behave. You can read about this feature toward the end of the "Fine-Tuning Data Sourcer Operation" chapter of the latest version of the *Reporting Data Sourcer User's Guide* (release 7.2 or higher).

Configuration Wizards

Starting with release 7.0, the method for invoking the Reporting configuration wizards has changed. Whereas CC Analyzer and CC Pulse 6.1/CCPulse+ 6.5 were deployed through Solution wizards, starting with the 7.0 release, both are deployed through the stand-alone Solution Reporting Wizard, which you invoke directly from the Framework Wizard Manager. Solution wizards 7.*x* and 8.*x* no longer invoke the Reporting wizards.

Installing New Applications Given Existing Objects

With preexisting application components already defined in your Configuration Server, you do not need to configure new Data Sourcer or Data Mart `Application` objects before installing them, as recommended in the *Reporting Deployment Guide.* (The exception is if you specifically want to add new application components to your environment.) Instead, after migration, you can proceed directly to installation. When installing:

- Data Sourcer 7.0.1, select your original Data Sourcer application name in the `Choose Application` dialog box.
- Data Sourcer 7.0.2 or higher releases, select your original Data Sourcer application name in the `Select Application` dialog box.
- ETL Runtime 7.0.1, select your original Data Mart application in the `Selecting New Application in ConfigServer` dialog box.
- ETL Runtime 7.0.2 or higher releases, select your original Data Mart application name in the `Select Application` dialog box.

For the Reporting 8.0, JRE 1.5 (or 1.6) is required. For the Reporting 8.1, JRE 1.6 or higher is required.

JRE that is installed must comply with the US Energy Policy Act of 2005 (related to time changes—daylight saving).

Installing Stand-Alone Components

If you only need to install new components to your Reporting environment, as is the case for deploying hotfix releases, you may do so without using the Reporting wizards. Refer to the deployment procedures associated with your hotfix release.

SAP Crystal Reports

SAP Crystal Reports version 14 needs to be installed in order to use new report templates provided starting from CCAnalyzer release 7.6.1.

Heterogeneous Environments

- Use 6.5 Genesys Wizard Manager if you are configuring Reporting 7.*x* for Genesys 6.5 solutions. (This is the only way to configure Reporting 7.*x* by using wizards for ICS 6.5.)
- Do not use 6.5 wizards if you are configuring Reporting 7.*x* applications by using the deployed solution-specific templates from the Reporting Templates 7.*x* DVD.
- Use 6.5 Solution wizards if you are configuring Reporting 7.*x* applications using solution-specific 6.5 data from the solution-specific 6.5 DVD.

Assigning Reporting to Solutions

In the 7.*x* releases, Reporting components are not assigned to solutions as they were in previous releases. If you need to assign Reporting components to particular solutions—to use SCI, for example—manually make the assignment by using Configuration Manager.

Uninstalling CCPulse and DMA

- For CCPulse+ 7.*x*, remember to uninstall earlier versions of CC Pulse/CCPulse+ before you install 7.*x* and 8.*x*.
- Likewise, you can have only one DMA 7.0.2 or higher release installed on your computer. This restriction was not imposed on previous versions of DMA.

Different Microsoft SQL JDBC Driver

The JDBC driver that is provided with the 7.0.2 and higher releases of Historical Reporting differs from that which was provided in previous releases. As a result, to use this new driver, you must update your actively used properties files to use its syntax.

For instance, in `etl.properties` change:

`mssql : 'jdbc:weblogic:mssqlserver4:<dbname>@<host>:port'`

to

`mssql : 'jdbc:jtds:sqlserver4://dbhost:dbport:DatabaseName=dbname'`

Also, in Configuration Manager, open the database access point `Application` object that corresponds to your Data Mart, and update the `jdbcurl` option in the `jdbc` section to use this language.

In the 7.0.2+ release, ETL Runtime, ETL Assistant, Data Sourcer, and the Reporting configuration wizards all use the jTDS driver.

Template Issues

Building Applications via Genesys Administrator

CCPulse+ 8.0 introduces support for the configuration of `CallCenter Pulse Application` objects within Genesys Administrator from an XML template that is provided on the Reporting 8.0 CD. This template contains the metadata that defines the default and valid values for most CCPulse+ configuration options that are available to you in the 8*.x* release. Refer to the *Framework 8.0 Genesys Administrator Help* to learn how to use this tool.

Layout Template Names

Starting with Reporting 6.1, the names of layout templates and report templates are limited to 10 alphanumeric characters. Before release 6.1, these names could hold up to 24 characters and contain special characters, including spaces, periods, and commas. With the added feature of using the same reports across several tenants in a 6.1, 6.5, or 7.*x* environment, template names must now accommodate a tenant-alias prefix.

Note: See "Tenant Alias Update Module" in the *Reporting ETL Runtime User's Guide* for more information about sharing reports across tenants.

In converting pre-6.1 historical data to 7.*x:*

- All layout templates are renamed to a predefined name of 10 characters or fewer.
- All custom layout templates are renamed during data conversion to a prefix and a number; report layout names remain the same. (See "Report Issues" on page 275 for more information.)

Another template issue involves the location of report templates (.bqy files), which changed from the Reporting CD (prior to 6.1), then to the Solution CD (for 6.1 and 6.5), and finally to the Reporting Templates DVD (7.*x*). The Reporting Templates DVD was newly introduced in the 7.0 release.

Report Layouts Based on the Same Layout Template

ETL Runtime versions 6.5 and 7.*x* automatically create unions of report layouts based on the same layout template. In some atypical cases, this could result in the following:

- If there is a deleted report layout, the object set could be inconsistent because object sets are not tracked for deleted report layouts.
- If time profiles or filters in such report layouts are different, the data values in the view could be incorrect.

It is required that report layouts, based on the same layout templates, have the same statistics, filters, and time profiles. Contact Genesys Technical Support for assistance in assigning different report layouts to different layout templates. If you have deleted a report layout, you need to run the purge module to delete old data and then permanently delete the corresponding report folder (using ETL Assistant) before the upgrade. Contact Genesys Technical Support, if necessary.

Conversion to SAP Crystal Reports

Starting with CCAnalyzer 7.6.1 release, all Hyperion-based report templates have been replaced with report templates for SAP Crystal Reports providing the same functionality.

Migrating Layout Templates

Minor differences exist between layout templates in different Genesys releases. To take advantage of improved definitions:

1. Learn what the differences are from the *Solution Reporting Templates* book of the *Reporting Technical Reference* series.
2. Using DMA, alter the definition of your existing stat types, time ranges, and/or filters to match the improved definitions, as appropriate.

> **Note:** Before you modify statistical parameters, be sure to comprehend fully the impact of modifications, as they might affect reports that span several smaller aggregation periods—such as the monthly and yearly reports. Results might be difficult to interpret as they would combine data before and after the modification. If statistical parameters must be modified to create new ones, it must be understood that results might not be conclusive. In general, Stat Types for existing statistics cannot be modified.

Starting with the 7.0.2 release, the Reporting Wizards perform an automatic upgrade of layout templates.

Adding New Templates to ODS

You can use the Solution Reporting Wizard to deploy reporting templates to your environment. This Wizard, however, does not add new templates to ODS. To do so, follow the procedure that is outlined in the "Importing Templates" topic of the *Reporting Data Modeling Assistant Help* file.

Upgrading CC Pulse Templates

If you want to use the historical-reporting functionality in CCPulse+, Genesys recommends that you upgrade your existing CCPulse templates to release 6.5.001.04 or higher. This version of the templates associates real-time metrics with the corresponding column name in the Data Mart in which historical data is found. If you do not use this release (or higher), you must manually associate the two yourself. You can find a listing of the associations that are made in the "CCPulse+ Metrics" chapter of the *Solution Reporting Templates* book of the *Reporting Technical Reference* series.

If you have custom CC Pulse/CCPulse+ templates, thresholds, or actions, save a copy of your stg files (by default, named `templates.stg`, `workspaces.stg`, `thresholds.stg`, and `actions.stg`). Four configuration options in the `Storages` section of the CC Pulse `Application` object define the location of these files. Using the CCPulse+ import utility, you can import your customizations after upgrade. Refer to "Using the Import/Export Utility" in the *Reporting CCPulse+ Help* for more information. Also, consider saving your statistics' profiles by exporting them into a Stat Server configuration file (`.cfg`).

BQY Consolidation

Starting with the 7.0.1 release, all Brio/Hyperion report templates have been consolidated and renamed. As a result, the same report functionality is delivered by using fewer `.bqy` files.

6.5 Reporting Templates

The latest available version of ICS Reporting templates is 6.5, and these templates are not included on the Reporting Templates 7.*x* DVD. The 6.5 templates are available only from the Internet Contact 6.5 DVD, which is the only place from which they can be installed. The Solution Reporting 7.*x* Wizard does not deploy 6.5 Reporting templates nor does Data Sourcer support them starting with release 7.6.

In addition, the *Reporting Technical Reference Guide for the Genesys 7.x Release* document excludes information about ICS 6.5 templates. To understand these templates, refer to the *Reporting Technical Reference Guide for the Genesys 6.5 Release* document.

Different Definitions for VCB Metrics

Reporting templates for the Voice Callback option of Enterprise Routing were first made available during the 7.0.1 release. All of the metrics from these templates were derived from calculations that are made directly within Stat Server. The 7.1 release of these templates introduces the VCB Stat Server Java Extension (SSJE), which enables the reports to gather information about callback requests that are submitted from a web interface, in addition to those that are submitted from a telephone. You must install the Universal Callback Server 7.1 (or higher) and Stat Server 7.1 (or higher) in your environment to use these templates.

To incorporate this functionality, the VCB SSJE calculates the following seven metrics differently from how they were calculated in 7.0.1:

- CB Request Attempts
- ASAP CB Requested
- Scheduled CB Requested
- Last Hour (CB Requested)
- Successful CB
- Made
- Succeeded

These metrics appear in both the `Callback Operation` and `Callback Queue` CCPulse+ reports.

These templates are not supported in CCPulse+ release 8.0 and higher. If you want to use these templates, CCPulse+ 7.2 or 7.5 should be used.

MCR Voice Reporting Templates 7.2

CCPulse+ MCR Voice templates were extended in release 7.2 with new metrics that provide both real-time and historical reports for key performance indicators (KPI). To take advantage of improved templates:

1. Learn what the differences are from the “Understanding the Out-of-Box Templates” chapter of the *Reporting Technical Reference Guide for the Genesys 7.2 Release* document.

2. Use Reporting Wizard 7.2 to upgrade your previous set of MCR Voice templates.
3. Deploy ETL Runtime release 7.2 to use the updated templates.

Open Media Sample Templates

A new set of templates, Open Media Sample Templates, was added in release 7.2. These templates are a mere sample of reports that can be created for a custom (open) media. These sample templates are created for a sample media type that is called media *X*, and they require appropriate modifications to produce reports for a particular custom media type. For instructions, refer to the "Open Media Templates" chapter of the *Customization* book of the *Reporting Technical Reference* series.

GIM Inbound Voice Reporting Templates

The GIM Inbound Voice Reporting templates can be used to create query-based views in CCPulse+ 7.2 or 7.5 only. These reports are built from the Genesys Info Mart database and require:

- Genesys Info Mart release 7.*x*.
- CCPulse+ release 7.*x*.
- Special integration between GIM and CCPulse+.

These templates are not supported in CCPulse+ release 8.0 and higher. If you want to use these templates, CCPulse+ 7.2 or 7.5 should be used.

For descriptions of these templates, refer to the *Solution Reporting Templates* book of the *Reporting Technical Reference* series. For template deployment instructions, refer to the *Reporting 7.5 (or 7.6) Deployment Guide*.

Report Issues

All of your pre-6.1 customized report templates (as well as the provided canned templates) are automatically renamed during conversion to 6.1—whether or not they meet the 10-character limitation rule. This new name consists of a prefix and a number—for example, `t_26`. Your customized reports, however, remain untouched by any of the migration steps. This means that you can run them using the same tools that you used to create them. If you used CC Analyzer Report Generation Assistant, release 6.0, with BrioQuery Designer, version 6.2.2, for example, you can continue using this tool to run your existing, customized reports after migration. However, to create new customized reports by using Genesys tools, you must use the 7.*x* toolset.

Genesys requires the use of Oracle EPM System 11.1.2 for customizing the reporting templates prior to the CCAnalyzer 7.6.1 release.

Starting with CCAnalyzer 7.6.1 release, Reporting Templates must be customized using the SAP Crystal Reports toolset.

The passwords for newly created tenant accounts might also differ from what they were previously. Refer to ETL documentation for password values. You must either issue this password when you are running your reports or change the password using your normal database tools.

Framework Issues

In release 7.*x*, the Solution Control Interface (SCI) controls the activation, deactivation, and monitoring of solutions and their components. This was not the case prior to release 6.0.

For details about SCI operation, refer to the following sources:

- *Framework 7.x Solution Control Interface Help*
- *Framework 7.x Management Layer User's Guide*

Interoperability Among Framework and Reporting Components

CC Analyzer 7.6.*x* requires release 7.6.000.09 or higher of DB Server and Configuration Server (minimum version 7.5.000.01). You must migrate any pre-6.1 Framework components, convert its data, and make sure that your 7.*x* Framework runs properly before you migrate your Reporting environment. See Part 2, "Framework Migration," of this guide for migration instructions for Framework. CCPulse+ 8.0.*x* requires Framework 7.5 or higher. It does not support Framework 6.x, and has not been verified on Framework 7.2. The *Genesys Interoperability Guide* summarizes the compatibility of various releases of Reporting applications to Framework and shows the compatibility between solution Reporting templates and different versions of Stat Server.

For CC Analyzer to function properly and to preserve the data that has been collected thus far, you must:

- Convert the data for all ODSs that are associated with a particular Data Mart.
- Convert the data for that Data Mart.
- Install all CC Analyzer 7.*x* components.

CC Analyzer components might function improperly in a heterogeneous environment. For example, ETL Runtime 6.0 does not know about 6.1 Enterprise Routing templates. This means that the 6.1 canned reports will not generate any data because the specific views on which they are based do not yet exist in the Data Mart. ETL Runtime 6.0 determines whether a template is customized or canned, based on its name. For example, `Agent Template` is a canned template and `AGENT` (the 6.1-equivalent name of the canned template) is a customized template.

To use the historical-reporting functionality in CCPulse+, you must upgrade your CC Pulse application to release 6.5 or higher.

Chapter

15 Changes in Reporting

This chapter provides information for upgrading Reporting components and configuration options from release 6.*x* to 8.1.*x*. This section discusses only the changes (additions, deletions, and modifications) to existing applications that you must make during migration. Configuration and installation of new applications, as well as their uninstallation, are described in the *Reporting Deployment 8.0 Guide*. The product documentation for each release contains a comprehensive list of changes from release to release.

This chapter contains the following sections:

Changes in Release Content

Each release of Reporting introduced new features and functionality on one or more of the UNIX and Microsoft Windows platforms. This section summarizes these new features and functionality. You can find the complete list of supported platforms and operating systems in the *Genesys Supported Operating Environment Reference Manual* on the Genesys Technical Support website. The next section, "Changes to Configuration Options and Runtime Parameters" on page 287, lists changes to configuration options between the releases.

Note: Genesys Reporting 8.1.*x* comprises CCPulse+ 8.1.*x* and CC Analyzer 8.1.*x*. Genesys Reporting 8.0.*x* comprises CCPulse+ 8.0.*x* and CC Analyzer 7.6.*x*. Genesys Reporting 7.5.*x* comprises CCPulse+ 7.5.*x* and CC Analyzer 7.2.*x*.

Summary of CC Analyzer Functionality

CC Analyer 8.1

- CC Analyzer supports MS SQL 2012.

CC Analyer 7.6.1

- CC Analyzer report templates were redesigned for the new underlying report engine SAP Crystal Reports version 14. Previously, CC Analyzer used Hyperion Interactive Reporting as its report engine.
- There is no automated migration procedure for the custom Hyperion-based reports. All custom reports have to be rewritten from scratch for the new underlying report engine.
- Starting with CCAnalyzer 7.6.1, Report Generation Assistant is no longer available.
- CC Analyzer support for its servers is extended to the following platforms:
  - Red Hat Enterprise Linux 5 (64-bit)
  - HP-UX IPF 11 v3 64-bit
  - Solaris 9 and higher versions
  - Data Modeling Assistant release 7.6.000.06 Build 3 and higher provides support for Microsoft Windows 2008.
- Support for the following platforms and RDBMS has been discontinued:
  - IBM AIX 5.1 and 5.2 (32- and 64-bit)
  - Solaris 7 and 8
  - HP-UX 11.0
  - Red Hat Enterprise Linux AS 3
  - Tru64/Alpha 5.1B (64-bit)
  - Microsoft Windows Server 2000
  - Oracle 9 (all versions)
- CC Analyzer support for its servers is added to the following platforms:
  - DB2 9.7

Note: Note: Support for of DB2 9.7 requires latest DB Server 8.1 to be used.

Refer to the *Genesys Supported Operating Environment Reference Manual* for the complete list of operating systems and database systems supported in releases 7.6.1.

CC Analyzer 7.6

- CC Analyzer support for its servers is extended to the following platforms:
  - HP-UX 11iv3 (64-bit)
  - AIX 6.1 (64-bit)
  - Red Hat Enterprise Linux 5 (32-bit)
- CC Analyzer extends support to the following RDBMS:
  - MS SQL Server 2008
  - DB2 9.5
  - Oracle 11G

Refer to the *Genesys Supported Operating Environment Reference Manual* for the complete list of operating systems and database systems supported in releases 7.6.

Note: DB Server version 7.6.000.09 or higher must be used with the newly supported RDBMS.

CC Analyzer 7.6 introduces the following new features:

- Data Sourcer 7.6 supports the emergency file data format and multiple chunk composition modes.
- ETL runtime provides improved performance.
- CC Analyzer report templates and Report Generation Assistant have been updated to support Hyperion Interactive Reporting, Fusion Edition version 11. Oracle EPM System 11.1.2 is required in order for the Hyperion-based templates to run properly.

Note: Custom templates based on 7.2 reporting templates must be updated to work with Hyperion version 11.1.2.

CC Analyzer 7.2.1

The 7.2.1 release of CC Analyzer adds support for:

- DB2 9.1 RDBMS with DB Server release 7.6.
- The following platforms (applies to Data Sourcer 7.2.1 only):
  - AIX 5.1, 5.2, and 5.3 (32-bit and 64-bit).
  - HP-UX 11v.2 (32-bit and 64-bit).

Support for the AIX 4.3.*x* platform has been discontinued for the 7.2.1 release of CC Analyzer.

CC Analyzer 7.2

CC Analyzer 7.2 introduced the following new features:

- Historical Layout Templates and Report Layouts now can be extended with new metrics, even after they have already been used by ETL.
- High Availability of historical-reporting data has been implemented by using a redundant pair of Data Sourcers that operate in `hot standby` mode and a redundant pair of Stat Servers that operate in special `warm standby` mode.

  Notes: Genesys recommends that you use Data Sourcer release 7.1, unless High Availability of historical-reporting data is a mandatory requirement for your environment.

  The latest generally available release of Stat Server 7.2 (or higher) is required for Data Sourcer 7.2 to operate correctly.

- Support for the following platforms:
  - HP-UX 11.11 (32-bit and 64-bit)

- AIX 5.3
- Red Hat Enterprise Linux 4.0
- Solaris 10 (64-bit)
- Tru64/Alpha 5.1B (64-bit)
- Windows Server 2003 (64-bit)

- Support for the Windows NT operating system has been discontinued for all components.
- Support for the following RDBMSs:
  - IBM DB2 8.2
  - Oracle 10g
  - Microsoft SQL Server 2000, SP3 or higher; and 2005, SP1
- Support for the following platforms and RDBMS has been discontinued:
  - IBM AIX 4.3
  - Solaris 2.6
  - IBM DB2 7.2

CC Analyzer 7.1 CC Analyzer 7.1 introduced no new features.

CC Analyzer 7.0.2 CC Analyzer 7.0.2 introduced the following features:

- A tenfold reduction in ETL Runtime memory requirements, and multifold improvement in performance.
- Improved ETL Runtime logging.
- The optional use of seven-day weeks, instead of partial weeks for the first and last weeks of a year, for week-level aggregation.
- Configuration wizards perform database upgrade and report-template upgrade, at your option.
- Data Sourcer and ETL Runtime now connect to a Microsoft SQL ODS by using the jTDS JDBC driver.

CC Analyzer 7.0.1 CC Analyzer 7.0.1 corrected some known problems and introduced no new features. In this release, support for Sybase 12.0 has been discontinued. Supported RDBMSs include the following:

- Sybase 12.5
- DB2 7.2 SP6+ and 8.1
- Oracle 8.1.7, 9.0i, and 9.2

> **Note:** Oracle 8.1.7 is available with DB Server release 7.5 only.

- Microsoft SQL 2000 SP3

CC Analyzer 6.5 CC Analyzer 6.5 corrected some known problems. In this release, support for the following platforms has been discontinued:

- Sybase 11.9

- Oracle 8.06
- Solaris 2.6

CC Analyzer 6.1, Tiers II & III

The second and third releases of CC Analyzer 6.1 added support for the following:

- HP-UX, AIX, OSF, and Windows XP operating systems (DMA and ETL Assistant supported on Windows XP only)
- DB2 7.0 RDBMS, SP 6

Oracle binding also was introduced to generate a nearly fivefold improvement in performance.

CC Analyzer 6.1, Tier I

The first release of CC Analyzer 6.1 introduced the following new features:

- Improved Data Mart administration and multi-tenancy support
- Report-broadcasting capabilities
- Improved canned layout and report templates for the Enterprise Routing, Network Routing, Outbound Contact, and Internet Contact solutions
- Data Mart Purge Utility
- Support for the following platforms:
  - Windows NT SP6
  - Windows 2000
  - Solaris 2.6, 2.7, and 2.8 (32-bit)
  - Solaris 2.7, and 2.8 (64-bit)
- Support for the following RDBMSs:
  - Oracle 8.0.6
  - Oracle 8.1.7
  - Microsoft SQL 7
  - Microsoft SQL 2000

CC Analyzer 6.0, Tier II

The second release of CC Analyzer 6.0 added support for the Sybase 11.9 and 12.0 RDBMSs on the same platforms.

CC Analyzer 6.0, Tier I

The first release of CC Analyzer 6.0 introduced the following new features:

- Integration with the Framework Management Layer.
- Configuration wizards.
- Importing/exporting layout templates by using DMA.
- Layout templates in extensible markup language (XML) format for easy portability.
- Canned or out-of-box layout and report templates for Enterprise Routing, Network Routing, Outbound Contact, and Internet Contact solutions.
- Localization support.
- Support for the following platforms:
  - IBM AIX 4.3 (32-bit and 64-bit)

  - HP-UX 11 (32-bit and 64-bit)
  - Windows NT SP6
  - Windows 2000
  - Sun Solaris 2.6, and 2.7 (32-bit)
  - Sun Solaris 2.7 (64-bit)
  - Dec Tru64
- Support for the following RDBMSs:
  - Oracle 8.0.6
  - Microsoft SQL 7
- Support for Solaris 2.5 has been discontinued.

Summary of CC Pulse/CCPulse+ Functionality

CCPulse+ 8.1.0 CCPulse+ 8.1.0 introduces the following new features:

- The ability to hide the IP addresses of servers for user mode of CCPulse+.
- The ability to disable and/or hide commands such as PeekStatistics.
- Presentation of calls and e-mails in bar graphs as whole numbers.
- The ability to manage Workspaces in the Import/Export Utility.
- Improvements to the Import/Export dialog.
- Support for environment variables in storage and log file paths.
- Improvements to the column width management.
- The ability to add/delete objects in an existing workspace or in an existing view.
- The ability to interact with a Configuration Server operating in the multi-languages mode.
- Sorting of Tenant items in tree controls.

CCPulse+ 8.0.1 CCPulse+ 8.0.1 introduces the following new features:

- The ability to hide both basic and custom statistics by using the Templates Wizard.
- The ability for CCPulse+ administrators to prevent users from creating and displaying agent statistics.
- The `GraphTitleFontSize`, `GraphBkColor`, and `GraphAxisFontSize` CCPulse+ configuration settings have been removed from the registry and moved to the `Settings` menu option under the `Tools` menu of the CCPulse+ interface.
- New formatting option in the CCPulse+ application object that allows CCPulse+ users to define how CCPulse+ objects are displayed in the workspace, in all views, and in the Extended Current Status pane by using a format string.
- Support for the following Genesys Security features:

  - Genesys Transport Layer Security (TLS)—enables the secure data exchange among components.
  - Client-side port definition—enables users to control client-side connection parameters to meet external firewall settings.
  - Inactivity Timeout—requires users to log back into the CCPulse+ interface after a period of inactivity, such as no keyboard or mouse input.
- Support for IPv6 for all IP connections for CCPulse+.
- Support for the following platform:
  - CCPulse+ release 8.0.000.51 Build 3 and higher provides support for Microsoft Windows 2008.
- Speed and stability of network operations has been increased.
- New speed-improved Graph View is provided.
- Support for the following RDBMS has been discontinued:
  - Oracle 9 (all versions)

CCPulse+ 8.0 CCPulse+ 8.0 introduces the following new features:

- The ability to maintain CCPulse+ persistent data (Workspaces, Templates, Thresholds, Actions) in a variety of file formats, including legacy CCPulse+ 7.x storage files and new Binary and XML files.
- Improved reconnection procedures to Stat Server, and Configuration Server when these connections to CCPulse+ break.
- Enhanced usability for report views in the area of sorting and column-width adjustments.
- Added support for operation on the following platforms:
  - Microsoft Windows Vista
  - Microsoft Windows 7
- New performance-improved Grid View with flexible and configurable display options.
- The following new templates are introduced:
  - Web Media Reporting Templates:
    - Agent Performance Template - SIP IM
    - Queue Performance Template - SIP IM
  - E-mail Reporting Template:
    - Agent Performance Template - SMS
- CCPulse+ support for GIM Inbound Voice Reporting Templates is discontinued in release 8.0.
- CCPulse+ support for VCB Reporting Templates is discontinued in release 8.0.

CCPulse+ 7.5.1 CCPulse+ 7.5.1 introduces the following new features:

- Support for a new `Capacities` property inside the `state` object.

- Four new configuration options that enable and display agent and agent-group capacity in the CCPulse+ workspace.
- Availability of capacity information in threshold and formula scripts.
- Simulation within CCPulse+ of capacity information for agent-groups.
- Enhanced `Extended Current Status` pane that shows capacity per media for agents and agent groups in a new Capacity window.
- Enhanced visualization of agent and agent group status in the workspace view.
- New formatting options that allow CCPulse+ users to choose how to display capacity information in the CCPulse+ workspace.
- Enhanced Table and Graph views to display current capacity per media.
- Enhanced template wizard to allow the addition of capacity statistics.
- Capability to save in HTML format, real-time virtual, or agent-group (V/AG) membership.

Note: The Capacity functionality requires Stat Server release 7.5 (or higher).

CCPulse+ 7.5

CCPulse+ 7.5 introduced the following features:

- The capability to obtain Virtual Agent Group membership directly from Stat Server.
- Support for multiple predefined formats in the statistics templates.
- The capability to create the following new views: Dynamic Real-Time Virtual or Agent Group (V/AG) Membership views that reflect the actual working agents; Single-Object views that are based on any currently active real-time View.
- Improvements to the default display when you create a view including new options: `Always on Top` and `Full Screen`.
- A new object, `state`, that provides extended information about agent status.
- Support for Internet Explorer (IE) 6 (support for IE 5.5 has been discontinued).
- Support for Windows XP SP2 or higher.

CCPulse+ 7.2 CCPulse+ 7.2 introduced the following features:

- Queue and Routing Point views can now be created based on a group membership. As a result, these views can be extended with Routing Points and Queues that are newly added to the configuration.
- Place Groups and DN Groups can now be created based also on a group membership.
- You can configure CCPulse+ to accept or ignore notifications from Configuration Server about newly created configuration objects that are reportable objects in the `Call Center Objects` pane.
- Support for low-level (less than one hour) aggregation has been added. This appears as a `No Aggregation` option when you are creating historical views.

> **Note:** For a particular object, a level of `No Aggregation` generates approximately 24 records per day.

- Improvements have been made to the threshold engine. For example, it now propagates thresholds to new objects that are added to an existing view.
- CCPulse+ now supports a new type of view, Query-Based view. These reports are built from the Genesys Info Mart (GIM) database and require GIM release 7.2 or later. The resulting view looks similar to an existing CCPulse+ historical view, but the content is defined by a query. The predefined set of queries must be installed from the Reporting Templates 7.2 DVD.
- You can configure how often the current-state statistics are refreshed in a CCPulse+ view.
- Improved performance enables CCPulse+ to handle more real-time statistics and reduces its use of system resources.
- Support for the Citrix AccessSuite 4.0 operating system has been added.
- Support for Windows 2000 SP 4 or higher, Windows XP SP1 or higher, and Windows Server 2003 has been added.
- Support for the Windows NT operating system has been discontinued.

CCPulse+ 7.1 CCPulse+ 7.1 introduced the following feature:

- Supports for Open Media statistics

CCPulse+ 7.0.2 CCPulse+ 7.0.2 introduced the following features:

- The ability for CCPulse+ to connect to a backup DB Server, if specified.
- The display of information about the individual agents that make up a virtual agent group.
- Within the Template Wizard, you can now rearrange statistical groups and the statistics within the groups by using drag-and-drop operations. Also, you can substitute one stat type for another in metric definitions.

CCPulse+ 7.0.1

CCPulse+ 7.0.1 introduced the following new features:

- Advanced view and workspace management.
- The ability to reveal workspace details by export to a file in XML format.
- Customized printing capability.
- Formula-based custom-statistic definition.
- Increased allowable length of custom statistic names.
- Support for fax and call-processing DNs.
- The ability to display agent skills in the `Extended Current Status` window.
- In the `Extended Current Status` window, CCPulse+ can optionally display reasons for agents being in a specific state—typically, `NotReady`—if reason-code functionality is provided by the desktop.

CCPulse+ 6.5

CCPulse+ 6.5 introduced the following new features:

- The `CCPulse+ Application` object points to Data Mart, as well as Stat Server, to generate historical views.
- Logged out agents can be hidden from both the `Views` and `Call Center Objects` panes of the CCPulse+ main window.

CC Pulse 6.1, Tier III

The third and subsequent minor releases of CC Pulse 6.1 introduced the following new features:

- The ability to display DN alias instead of the `DN@switch` format
- Support for silent installations
- Support on the Windows XP and Windows 2000 platforms
- Reporting Service Pack

CC Pulse 6.1, Tier II

The second release of CC Pulse 6.1 corrected known problems.

CC Pulse 6.1, Tier I

The first release of CC Pulse 6.1 introduced the following new features:

- Customizable templates, thresholds, and actions
- Customizable user interface
- Support on the Windows NT SP6, Windows 2000, and Windows XP platforms
- Transfer of configuration options from the `callcenter.ini` file to the application component
- `Cold standby` timeout

CC Pulse 6.0

The CC Pulse 6.0 release introduced the following new features:

- `Extended Current Status` window
- Threshold Wizard
- Action Wizard
- Dynamic configuration changes
- CC Pulse configuration wizards

Changes to Configuration Options and Runtime Parameters

Review the runtime parameters and configuration options—especially log options, which changed significantly—for each applicable Reporting component:

- Table 42 lists the new additions to configuration options for Reporting components in the 8.1.*x* release.
- Table 43 lists the new additions and deletions to configuration options for Reporting components in the 8.0.*x* release.
- Table 44, beginning on page 298, lists the configuration options that were incorporated in Reporting releases from 7.1 to 7.5.*x*. For complete option descriptions, refer to the "Configuration Options" chapter in the *Reporting 7.2 Data Sourcer User's Guide* and the "Fine-Tuning CCPulse+ Configuration" chapter in the *Reporting 7.5 CCPulse+ Administrator's Guide*.

  For the `keep-startup-file` configuration option that was incorporated into Reporting release 7.1, refer to the "Configuration Options" chapter in the *Reporting 7.1 Data Sourcer User's Guide* and the "Common Log Options" chapter in the *Reporting 7.1 ETL Runtime User's Guide.* These sources provide information about how this option can be used in the Data Sourcer and ETL Runtime Reporting components.
- Table 45 lists the prior changes for specific components from Reporting 6.*x* to Reporting 7.0.*x*.

  For a complete description of the configuration options for these components, refer to the "Configuration Options" chapter in the *Reporting 7 Data Sourcer User's Guide* and to both the "Configuration Options" and "Runtime Parameters" chapters in the *Reporting 7 ETL Runtime User's Guide.* For CCPulse+ option descriptions, refer to the "Fine-Tuning CCPulse+ Configuration" chapter in the *Reporting 7 CCPulse+ Administrator's Guide.*

Table 42: Option and Parameter Changes from 8.0.*x* to 8.1.*x*

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
CCPulse+	[Connection] ReverseLookupIP	Added	8.1.0	Enables reverse lookup.
	[UserInterface] DisabledCommands	Added	8.1.0	Disables user interface commands.

Table 42: Option and Parameter Changes from 8.0.*x* to 8.1.*x* (Continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
CCPulse+ (continued)	[UserInterface] DisabledUserCommands	Added	8.1.0	Disables user interface commands.
	[UserInterface] HideConnectionIP	Added	8.1.0	Enables or disables displaying hostnames instead of IPs.
	[UserInterface] HideDisabledCommands	Added	8.1.0	Customizes menus and toolbars.

Table 43: Option and Parameter Changes from 7.5.*x* to 8.0.*x*

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
CCPulse+	[common] enable-ipv6	Added	8.0.1	Enables IPv6 for all IP connections for CCPulse+.
	[HistoricalView] FirstDayOfWeek	Added	8.0.1	Specifies the first day of the week for reports with weekly intervals.
	[HistoricalView] MinDayNumberInFirstWeek	Added	8.0.1	Specifies the minimum number of days in the same week of the first week of the year should be included.

Table 43: Option and Parameter Changes from 7.5.*x* to 8.0.*x* (Continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
CCPulse+ (continued)	[HistoricalView] NoAggregationInterval	Added	8.0.1	Specifies the time interval resolution in minutes for non-aggregated data in your Data Mart database.
	[HistoricalView] TimeZone	Added	8.0.1	Enables daylight-savings time for the specified time zone.
	[HistoricalView] WholeWeeks	Added	8.0.1	Specifies whether CCPulse+ recognizes that Data Mart is using whole weeks.
	[ObjectFormat] ACDPosition	Added	8.0.1	Defines the format of the ACD Position object.
	[ObjectFormat] Agent	Added	8.0.1	Defines the format of the Agent object.
	[ObjectFormat] AgentGroup	Added	8.0.1	Defines the format of the Agent Group object.
	[ObjectFormat] CallingList	Added	8.0.1	Defines the format of the Calling List object.
	[ObjectFormat] Campaign	Added	8.0.1	Defines the format of the Campaign object.

Table 43: Option and Parameter Changes from 7.5.*x* to 8.0.*x* (Continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
CCPulse+ (continued)	[ObjectFormat] CampaignAgentGroup	Added	8.0.1	Defines the format of the Campaign Agent Group object.
	[ObjectFormat] CampaignCallingList	Added	8.0.1	Defines the format of the Campaign Calling List object.
	[ObjectFormat] CampaignPlaceGroup	Added	8.0.1	Defines the format of the Campaign Place Group object.
	[ObjectFormat] Chat	Added	8.0.1	Defines the format of the Chat object.
	[ObjectFormat] CoBrowse	Added	8.0.1	Defines the format of the CoBrowsing object.
	[ObjectFormat] Dialer	Added	8.0.1	Defines the format of the S-Dialer object.
	[ObjectFormat] DN	Added	8.0.1	Defines the format of the DN object.
	[ObjectFormat] EMail	Added	8.0.1	Defines the format of the E-mail object.
	[ObjectFormat] Extension	Added	8.0.1	Defines the format of the Extension object.

Table 43: Option and Parameter Changes from 7.5.*x* to 8.0.*x* (Continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
CCPulse+ (continued)	[ObjectFormat] ExternalRoutingPoint	Added	8.0.1	Defines the format of the External Routing Point object.
	[ObjectFormat] ExternalRoutingPointInTheGroup	Added	8.0.1	Defines the format of the External Routing Point object shown inside a group.
	[ObjectFormat] Fax	Added	8.0.1	Defines the format of the Fax object.
	[ObjectFormat] InteractionQueue	Added	8.0.1	Defines the format of the Interaction Queue object.
	[ObjectFormat] Place	Added	8.0.1	Defines the format of the Place object.
	[ObjectFormat] PlaceGroup	Added	8.0.1	Defines the format of the Place Group object.
	[ObjectFormat] Queue	Added	8.0.1	Defines the format of the Queue object.
	[ObjectFormat] QueueGroup	Added	8.0.1	Defines the format of the Queue Group object.
	[ObjectFormat] QueueInTheGroup	Added	8.0.1	Defines the format of the Queue object shown inside a group.

Table 43: Option and Parameter Changes from 7.5.*x* to 8.0.*x* (Continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
CCPulse+ (continued)	[ObjectFormat] Reason	Added	8.0.1	Defines the format of the Reason object.
	[ObjectFormat] RoutingPoint	Added	8.0.1	Defines the format of the Routing Point object.
	[ObjectFormat] RoutingPointGroup	Added	8.0.1	Defines the format of the Routing Point Group object.
	[ObjectFormat] RoutingPointInTheGroup	Added	8.0.1	Defines the format of the Routing Point object shown inside a group.
	[ObjectFormat] RoutingQueue	Added	8.0.1	Defines the format of the Routing Queue object.
	[ObjectFormat] RoutingQueueInTheGroup	Added	8.0.1	Defines the format of the Routing Queue object shown inside a group.
	[ObjectFormat] Script	Added	8.0.1	Defines the format of the Script object.
	[ObjectFormat] ServiceNumber	Added	8.0.1	Defines the format of the Service Number object.
	[ObjectFormat] ServiceNumberGroup	Added	8.0.1	Defines the format of the Service Number Group object.

Table 43: Option and Parameter Changes from 7.5.*x* to 8.0.*x* (Continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
CCPulse+ (continued)	[ObjectFormat] ServiceNumberInTheGroup	Added	8.0.1	Defines the format of the Service Number object shown inside a group.
	[ObjectFormat] SimpleRouting	Added	8.0.1	Defines the format of the Simple Routing object.
	[ObjectFormat] Skill	Added	8.0.1	Defines the format of the Skill object.
	[ObjectFormat] Switch	Added	8.0.1	Defines the format of the Switch object.
	[ObjectFormat] Tenant	Added	8.0.1	Defines the format of the Tenant object.
	[ObjectFormat] Video	Added	8.0.1	Defines the format of the Video object.
	[ObjectFormat] VirtualQueue	Added	8.0.1	Defines the format of the Virtual Queue object.
	[ObjectFormat] VirtualQueueInTheGroup	Added	8.0.1	Defines the format of the Virtual Queue object shown inside a group.
	[ObjectFormat] VirtualRoutingPoint	Added	8.0.1	Defines the format of the Virtual Routing Point object.

Table 43: Option and Parameter Changes from 7.5.*x* to 8.0.*x* (Continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
CCPulse+ (continued)	[ObjectFormat] VirtualRoutingPointInTheGroup	Added	8.0.1	Defines the format of the Virtual Routing Point object shown inside a group.
	[ObjectFormat] VoiceTreatmentPort	Added	8.0.1	Defines the format of the Voice Treatment Port object.
	[ObjectFormat] VoIP	Added	8.0.1	Defines the format of the VoIP object.
	[security] inactivity-timeout	Added	8.0.1	Specifies the amount of time (in minutes) that a user can be inactive without any impact on the CCPulse+ session. After the timeout expires, the user is locked out of the session and must log back in.
	[Storage] BinActionsStorageFullPath BinTemplatesStorageFullPath BinThresholdsStorageFullPath BinWorkspacesStorageFullPath	Added	8.0.0	Storages saved in binary format.
	[Storage] DefaultStorageType	Added	8.0.0	Storage type is one of the following: `Binary`, `XML`, or `Legacy`
	[Storage] QueryStorageFullPath	Removed	8.0.0	

Table 43: Option and Parameter Changes from 7.5.*x* to 8.0.*x* (Continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
CCPulse+ (continued)	[Storage] XMLActionsStorageFullPath XMLTemplatesStorageFullPath XMLThresholdsStorageFullPath XMLWorkspacesStorageFullPath	Added	8.0.0	Storages saved in XML format.
	[View] CurrentStateRefreshInterval	Added	8.0.0	Specifies the time interval at which `CurrentState` statistics will be refreshed in the view.
	[View] DisableCreateRemoveViews	Added	8.0.0	Enables CCPulse+ Administrators to prevent or restrict contact-center operators from the creation and removal of views.
	[View] DisableHideShowActionsOnGraph	Added	8.0.0	Enables or disables hide/show actions on `Graph` view.
	[View] DisableRowColVisibility Change	Added	8.0.0	Enables contact-center operators who are configured as CCPulse+ Users to alter the visibility of rows and/or columns in the `Table` view, or to prevent them from doing this.

Table 43: Option and Parameter Changes from 7.5.*x* to 8.0.*x* (Continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
CCPulse+ (continued)	[Workspace] DisableAgentCurrentState	Updated	8.0.1	Enables Administrators to prevent CCPulse+ Users from creating and displaying agent statistics.
	[Workspace] DisableThresholdsDlg	Added	8.0.0	Enables or disables contact-center operators who are configured as CCPulse+ Users to set and/or remove thresholds.
	[Workspace] IgnoreNewObjectNotifications	Added	8.0.0	Specifies whether CCPulse+ should accept or ignore notifications from Configuration Server about newly created reportable objects.

Table 43: Option and Parameter Changes from 7.5.*x* to 8.0.*x* (Continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
Data Sourcer	[collector] chunk-composition-mode	Added 7.6.0		Introduces 4 chunk composition modes: legacy, fast, normal and safe. Controls how data is received from an HA Stat Server pair and how this data is written to ODS.
	[collector] new-object-delay Ad	ded	7.6.0	Specifies how soon after notification of object changes Data Sourcer will process the notification.
	[collector] receive-queue-size	Added	7.6.0	Sets the chunk queue size that Data Sourcer is to maintain before it must submit chunks to ODS.
	[dbserver] db-request-timeout	Added	7.6.0	Places limits on the amount of time that Data Sourcer will wait for db requests placed on ODS.

Table 43: Option and Parameter Changes from 7.5.*x* to 8.0.*x* (Continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
ETL Runtime	*Sections are not applicable for runtime parameters.* maxLevelOfAgg maxNumberOfChunksInReadQueue maxNumberOfChunksInWriteQueue maxNumberOfChunksInReadQueue maxNumberOfChunksInWriteQueue maxNumberOfConnToDist maxNumberOfWriteMonitorsPerView minNumberOfWriteMonitorsPerView noCheckTablesForFolderViews noSrcObjects numberOfDataReadersPerSource reinitAfterExceptionTimeout srcStartReadingTimeout syncDimWithGlobalCatalogTimeout	Removed	7.6.0	Improvements in ETL Runtime optimization make these runtime parameters obsolete.

Table 44: Option and Parameter Changes from 7.1 to 7.5.*x*

Component Name	[Section] Option Name	Type of Change	Occurred in Release #	Details
CCPulse+	[CustomStatistic]	New section	7.2	Holds one configuration option to affect the display of custom statistics within the CCPulse+ interface.
[CustomS	tatistic] ExtendedCurrentStatus	Added	7.2	Enables CCPulse+ to display reasons in current state statistics that are provided through agent views. Default value: `false`
	[CustomStatistic] MediaTypes	Added	7.5.1	Populates the drop-down list of available media types in the `Media` filter section of the `Properties` dialog box for the `CurrentAgentState` statistical category. Default value: `"voice"`

Table 44: Option and Parameter Changes from 7.1 to 7.5.*x* (Continued)

Component Name	[Section] Option Name	Type of Change	Occurred in Release #	Details
CCPulse+ (continued)	[Storage] QueryStorageFullPath	Added	7.2	Defines the location of the XML file in which CCPulse+ queries are stored. No default value.
	[Workspace] EnableAgentCapacity	Added	7.5.1	Enables or disables the receipt of capacity per media information from Stat Server for individual agents in the CCPulse+ workspace.
	[Workspace] EnableAgentCapacity Status	Added	7.5.1	Enables or disables the display of agent or agent group capacity information in the object tree.
	[Workspace] EnableAgentGroup Capacity	Added	7.5.1	Enables or disables the calculation of capacity per media information by CCPulse+ for agent groups in the workspace. Default value: `false`
	[Workspace] SafeScriptingMode	Added	7.2	Specifies whether CCPulse+ uses a separate thread to execute VB scripts. Default value: `false`
	[Workspace] UseStatServerVirtual Groups	Added	7.5	Specifies the number of seconds, from 0 to 120, that logged-out agents remain visible in a real-time V/AG dynamic membership view. Default value: `false`
	[View] DelayBeforeRemoval	Added	7.5	Specifies the number of seconds that logged-out agents remain visible in a real-time V/AG dynamic membership view. Default value: `15` (seconds)

Table 44: Option and Parameter Changes from 7.1 to 7.5.*x* (Continued)

Component Name	[Section] Option Name	Type of Change	Occurred in Release #	Details
CCPulse+ (continued)	[View] MaxNumberOfAgents	Added	7.5	Specifies the maximum number of agents that CCPulse+ displays in a real-time V/AG dynamic membership view. Default value: `75`
Data Sourcer	[collector] auto-create-new-tenant-layouts	Added	7.2	Enables automatic creation of report layouts when new tenants are added to configuration.
	[collector] chunk-file-format	Added	7.2.003	Specifies one of two supported file formats for the chunk file. Default value: `"text"`
	[collector] conf-check-interval	Added	7.2	Controls how frequently Data Sourcer checks Configuration Server for updates to objects.
	[collector] emergency-save-directory	Name changed	7.2.001	Former option name is `sql-save-path`. The change in the option name results from changes in the implementation and related algorithm.
	[collector] max-chunk-size	Added	7.2.003	Specifies the maximum chunk size that Data Sourcer will process. Default value: `2,000,000`
	[collector] max-write-attempts max-write-reschedule-attempts	Added	7.2.100.46	
	[collector] use-prepared-statements	Removed	7.2	

Table 44: Option and Parameter Changes from 7.1 to 7.5.*x* (Continued)

Component Name	[Section] Option Name	Type of Change	Occurred in Release #	Details
Data Sourcer (continued)	[log] keep-startup-file	Added	7.1	Default value: `false`
ETL Runtime	[log] keep-startup-file	Added	7.1	Default value: `false`

Table 45: Option and Parameter Changes from 6.*x* to 7.0.x

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
CCPulse+	[IconStyle] DNLoggedOut	Added	6.5	Displays one of three styles of logged-out icons by using the `DNLoggedOut` option. Default value: `6.1.301.04`
	[Storages] StatProfileStorage-FullPath	Added	6.0	Defines the location of the `statprofile.cfg` file
	[UserInterface] EnableDNAliases	Added	6.5	Displays either DN numbers or DN aliases in the CCPulse+ workspace. Default value: `true`
	[UserInterface] ShowAgentSkills	Added	7.0.1	Displays the skills that are associated with selected agents in the `Extended Current Status` window. Default value: `false`
	[UserInterface] ShowDurationBeforeStatusName	Added	7.0.2	Specifies the format by which CCPulse+ displays information about current status in the `Views` pane. Default value: `false`
	[UserInterface] ShowStatusReasons	Added	7.0.1	Configures CCPulse+ to display data that is attached to a `TEvent` in the form of reason codes. Default value: `false`

Table 45: Option and Parameter Changes from 6.*x* to 7.0.x (continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
CCPulse+ (continued)	[Workspace] CurrentStateEnable	Added	7.0.1	Enables or disables the current state for all configuration objects that are selected for monitoring in the `Call Center Objects` pane. Default Value: `true`
	[Workspace] WorkspaceAutoLoad	Added	7.0.1	Loads the last workspace that was used upon start. Set to `false` to mimic 6.5 behavior.
Data Sourcer	[collector] data-excess-high-threshold	Added	7.0.1	Default value: `95` (percent of memory queue size)
	[collector] data-excess-low-threshold	Added	7.0.1	Default value: `65` (percent of memory queue size)
	[collector] data-flow-checkout-interval	Added	7.0.1	Default value: `2` (minutes)
	[collector] data-flow-timeout	Added	7.0.1	Default value: `20` (minutes)
	[collector] person-presentation-format	Added	7.0.1	Default value: `%l %f` (last/first name)
	[collector] create-sample-templates	Added	6.1	Default value: `true`
	[collector] use-prepared-statements	Added	6.1	Default value: `true` for Oracle RDBMSs; otherwise `false`.
	[log-control] log-buffering log-check-interval log-file-name log-file-size log-remove-old-files	Replaced by `log` section	6.0	Refer to "General Log Option Changes on page 73 for a listing of the common options for all 6.0+ Genesys servers.

Table 45: Option and Parameter Changes from 6.*x* to 7.0.x (continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
ETL Runtime	*Sections are not applicable for runtime parameters.* aggQuota	Added	7.0.2	Specifies the number of aggregations that ETL Runtime can perform simultaneously.
	CfgUser	Added	6.1	Specifies the name of a Configuration Server user.
	CfgUserPassword	Added	6.1	Specifies the password for the Configuration Server user that is specified by `CfgUserName`
	CfgUserPasswordEncrypted	Added	7.0.1	Is the encrypted version of the password for the Configuration Server user that is specified by `CfgUserName`.
	chunkBufferQuota Ad	ded	7.0.2	Specifies the threshold for the number of statistics that ETL Runtime may buffer in memory.
	chunkQuota	Added	7.0.2	Specifies the number of parsed data chunks that ETL Runtime may buffer in memory.
	chunksAtOnce	Added	7.0.2	Specifies the number of data chunks that ETL Runtime can read in a single read operation from a single ODS source.
	communication-alarm	Added	7.0.2	Indicates that ETL Runtime will send one of two events to SCS when ithas detected changes in connectivity to constituent ODSs.

Table 45: Option and Parameter Changes from 6.*x* to 7.0.x (continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
ETL Runtime (continued)	*Sections are not applicable for runtime parameters.* data-excess-alarm	Added	7.0.1	Indicates that ETL Runtime will send one of two events to SCS regarding variations in the data transfer rate between ODS and Data Mart.
	data-excess-check-interval	Added	7.0.1	Specifies how often ETL Runtime checks for overage in the number of data rows that are transferred.
	data-excess-threshold	Added	7.0.1	Specifies the maximum number of data rows that ETL Runtime can transfer during an interval.
	data-flow-alarm Added		7.0.1	Indicates that ETL Runtime will send one of two events to SCS regarding changes in data flow between ODS and Data Mart.
	data-flow-check-interval	Added	7.0.1	Specifies the frequency with which ETL Runtime checks for data flow from ODS to Data Mart.
	data-flow-timeout	Added	7.0.1	Specifies how much time can pass before ETL transformation must resume a previously suspended data transfer, before logging a message that indicates a data- flow problem.
	dba_pass	Added	6.1	Specifies the password for the administrative RDBMS user.

Table 45: Option and Parameter Changes from 6.*x* to 7.0.x (continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
ETL Runtime (continued)	*Sections are not applicable for runtime parameters.* dba_user	Added	6.1	Specifies an administrative user name for the RDBMS in which the Data Mart is located.
	deadlockThreshold	Added	7.0.2	Specifies how often ETL Runtime checks its threads for deadlocks.
	keepOpenCursorsForAgg	Added	6.0	Speeds up subsequent aggregations by not closing cursors.
	keepOpenCursorsForAgg	Removed	7.0.1	
	levelOfLog	Added	7.0.2	Specifies the detail level of log messages that ETL Runtime generates for the Transformation, Aggregation, and Purge modules.
	maxLevelOfAgg	Removed	7.0.2	
	maxNumberOfChunksInReadQueue	Removed	7.0.2	
	maxNumberOfChunksInWriteQueue	Removed	7.0.2	
	maxNumberOfConnToDist	Removed	7.0.2	
	maxNumberOfWriteMonitersPerView	Removed	7.0.2	
	noCheckTablesForFolderViews	Removed	7.0.2	
	noSrcObjects	Removed	7.0.2	
	numberOfDataReadersPerSource	Removed	7.0.2	

Table 45: Option and Parameter Changes from 6.*x* to 7.0.x (continued)

Component Name	[Section] Option/Parameter Name	Type of Change	Occurred in Release #	Details
ETL Runtime (continued)	*Sections are not applicable for runtime parameters.* numberOfWriters	Added	7.0.2	Specifies the number of threads that ETL Runtime dedicates to writing data chunks to Data Mart.
	passEncrypted	Added	7.0.1	Is the encrypted version of the Data Marts user's password.
	reinitAfterException Timeout	Removed	7.0.2	
	reverse_password	Added	6.1	Is used in the TAT algorithm for generating passwords for tenant accounts in a multi-tenant environment.
	setMinimalDaysIn FirstWeek	Added	7.0.2	Specifies which days of the new year will make up the first Data Mart week.
	srcStartReading Timeout	Removed	7.0.2	
	surviveLossOfA Source	Added	7.0.2	Determines ETL Runtime's response to exceptions in communication with constituent ODSs.
	syncDimWithGlobalCatalog Timeout	Removed	7.0.2	
	setFirstDayOfWeek	Added	6.5	Specifies the start day of the week for week-level aggregations.
	tenants_shortcut	Added	6.1	Specifies how the TAT module generates account names.
	transOnce	Added	6.1	If presented at command line, ETL Runtime exits after aggregating all available data.

Chapter

16 Reporting Migration Procedures

This chapter discusses the following migration topics:

Overview

Migration processes can include installing new software, converting data, and/or changing the values or properties of certain parameters.

CC Analyzer Migration Tasks

The following are the major tasks in migrating your 6.*x* or 7.*x* CC Analyzer environment:

1. Migrate Configuration Server.
2. Back up ODS and Data Mart databases. (You will be able to restore your existing environment should any part of migration to 7.6 fail.)
3. Install CC Analyzer 7.6.
4. Start each CC Analyzer 7.6 component.

Note the following:

- After migration, Genesys will assume that you will use the same relational database management system (RDBMS) that you used prior to migration. For example, you would not switch from Oracle to Microsoft SQL or even upgrade the Oracle version from 8.1.7 to 9.2 *during migration*.
- If necessary, upgrade either your operating system or your RDBMS before you migrate your Reporting environment. While performing an operating system or RDBMS upgrade, Reporting should not be running. To perform

an upgrade of the operating system or the RDBMS, and a migration of Reporting, Reporting must first be stopped, then the operating system or the RDBMS can be upgraded. After this, Reporting can be upgraded. The pre-migration version of Reporting should not be started on the new operating system or RDBMS.

- Make sure that the operating system, RDBMS, and any Genesys products in your environment are functioning correctly before you migrate Reporting.
- Genesys assumes that you have not customized the canned templates. If that is the case, completion of the following migration steps will take anywhere from an hour to several days depending on the complexity of the Reporting environment in your contact center. See the "Staged Rollout" notes throughout this chapter if you are conducting a pilot or are rolling out Reporting 8.*x* in stages.

> **Note:** Refer to See "Implementation Considerations" on page 265 for additional information about rolling out Reporting in stages.

CCPulse+ Migration Tasks

For CC Pulse/CCPulse+, the migration is straightforward.

Refer to "Migrating CCPulse+ 6.x/7.x to CCPulse+ 8.0.x" on page 311 for details.

Migrating CC Analyzer 7.x to 7.6.x

Use the instructions in this section to migrate CC Analyzer release 7.0, 7.1, and 7.2 to release 7.6.*x*.

> **Note:** North American customers must upgrade Data Mart to the latest generally available release of Data Mart 7.6.*x* to comply with the US Energy Policy Act of 2005 for Daylight Savings Time. Contact Genesys Technical Support for more information regarding time related problems.

To Migrate CC Analyzer 7.x

1. Migrate the Configuration Server.

   If you decide to migrate Configuration Server, see the detailed instructions in Chapter 5, "Setup of Migration Environment."
2. Upgrade your Stat Server application to the latest generally available release of Stat Server and review/adjust its configuration settings as described in the "Stat Server Migration" chapter of this guide.
3. Stop all CC Analyzer applications and any other applications that are connected to the ODS and Data Mart.
4. Back up your current ETL Runtime directory. Save all `*.properties` files.

5. Back up each ODS and Data Mart in your environment.

   Staged Rollout: Back up each ODS in your particular Data Mart environment.

6. Install all 7.6.*x* components of Historical Reporting. See "Configuration and Installation Issues" on page 270 for notes about your current application objects and configuration options.

   Genesys recommends to upgrade to the latest generally available release of the Data Sourcer 7.6.

7. Start Historical Reporting and verify that it functions properly.
   a. Start primary Data Sourcers in the primary/backup pairs, and analyze the Data Sourcer log files for errors. After the first start, Data Sourcer automatically converts ODS data and structures. After ODS has finished the converts, and the primary Data Sourcer has completely initialized, you may start the backup Data Sourcers.
   b. Run all ETL Runtime components of Historical Reporting 7.6.*x* in Transformation-and-Aggregation mode or in Transformation Only mode. Upon first start, ETL Runtime automatically converts Data Mart data and structures.
   c. After approximately 30 minutes, check the ETL Runtime log files for exceptions (search for the `EXCEPT` string).

   Refer to the *Reporting 8.0 Deployment Guide* for information about starting Historical Reporting 7.6.*x*.

8. **Staged Rollout:** Repeat Steps 2–5 for each stage of your migration.

To Enable High Availability

To benefit from the High Availability of historical data that is implemented beginning with Historical Reporting 7.2 where redundant systems reduce the potential for data loss:

1. Make the Data Mart and ODS databases highly available.

   Refer to the *Reporting 8.0 Deployment Guide* for guidelines, and work with your DBA on your specific implementation of database HA.

2. Upgrade your current Data Sourcer application to release 7.6.*x*, if it has not been upgraded already.

3. Deploy a backup Data Sourcer application:
   a. Configure a new Data Sourcer `Application` object in the Configuration Manager.
   b. Specify this new `Application` object as a `Backup Server` in `hot standby` mode for your current (primary) Data Sourcer application.
   c. Install the backup Data Sourcer application on a host other than the computer that is running your primary Data Sourcer application.

4. Upgrade your historical-reporting Stat Server application to the latest generally available Stat Server release (Genesys recommends StatServer 8.0.000.26 or higher), if it has not been upgraded already.

5. Deploy a backup Stat Server application, if it has not been deployed already:
   a. Configure a new Stat Server `Application` object in the Configuration Manager.
   b. Specify this new `Application` object as a `Backup Server` in `warm standby` mode for your current (primary) Stat Server application.
   c. Install the backup Stat Server application on a host other than the computer that is running your primary Stat Server application.
6. In the `Application` objects of *both* the primary and backup Stat Servers:
   a. In the `statserver` section, create a new option that is named `accept-clients-in-backup-mode`.
   b. Set the option value to `yes`.
7. Run the primary and backup Data Sourcer applications simultaneously.

Refer to the *Reporting 8.0 Deployment Guide* for information about Reporting HA.

Migrating CC Analyzer 6.x to 7.x

Use the instructions in this section to migrate CC Analyzer release 6.*x* to any CC Analyzer release 7.*x*.

If you are using the 6.1 version of Reporting templates, request the Genesys 6.5 Reporting Service Pack from Genesys Technical Support before you migrate your historical-reporting environment. Although deploying this Service Pack is not mandatory, you might benefit from the improved definitions for `ServiceFactor` and other metric calculations (such as all `Total` metrics) if you do deploy it. The Service Pack changes all `Total` metrics (`Total_Calls`, `Total_Calls_On_Hold`, and so forth) so that they are based on the number of status occurrences, instead of on the number of DN actions. Chapter 17, "Reporting Service Pack 6.5," on page 313 describes its use. If you are already using the 6.5 version of the Reporting templates, no template upgrade is necessary.

Migration occurs automatically for CC Analyzer 6.*x* components that are opened in a Framework 7.*x* or 8.*x* environment. You do not need to run a special script.

To Migrate CC Analyzer 6.x

1. Migrate the Configuration Server.

   Refer to Chapter 5, "Setup of Migration Environment," for detailed instructions.
2. Stop all CC Analyzer applications and any other applications that are connected to the ODS and Data Mart.
3. Back up each ODS and Data Mart in your environment.

Staged Rollout: Back up each ODS in your particular Data Mart environment.

4. Install all 7.*x* components of Historical Reporting. See Chapter 14, "Configuration and Installation Issues," on page 270.

   Genesys recommends that you deploy Data Sourcer release 7.1 unless you require and are ready to deploy the new High Availability functionality of Historical Reporting. See "To Enable High Availability" on page 309 for instructions. If you decide to deploy Data Sourcer release 7.2, upgrade your Stat Server to the latest generally available release 7.2. See the "Stat Server Migration" chapter in this guide for migration instructions.

5. Start Historical Reporting and verify that it functions properly.
   a. Start all Data Sourcer components of Historical Reporting 7.*x* and analyze the Data Sourcer log files for errors. Upon first start, Data Sourcer will automatically convert ODS data and structures.
   b. Run all ETL Runtime components of Historical Reporting 7.*x* in Transformation-and-Aggregation mode or in Transformation Only mode. Upon first start, ETL Runtime will automatically convert Data Mart data and structures.
   c. After approximately 30 minutes (or 1 hour if the Internet Contact Solution is involved), check the ETL Runtime log files for exceptions (search for the `EXCEPT` string).

   Refer to the *Reporting 7.5 Deployment Guide* for information about starting Historical Reporting.

6. **Staged Rollout:** Repeat Steps 2–5 for each stage of your migration.

Migrating CCPulse+ 6.x/7.x to CCPulse+ 8.0.x

Warning! If you have previously modified any of the following registry settings from their default values, these modifications will be lost during the upgrade to CCPulse+ 8.0.1:

- `GridFontSize`
- `GraphTileFontSize`
- `GraphBkColor`
- `GraphAxisFontSize`
- `FormatAgentInfo`

Refer to the *CCPulse+ 8.0 Administrator's Guide* for information about how to configure these settings in CCPulse+ 8.0.1.

The procedure for migrating CC Pulse/CCPulse+ to 8.0.*x* is straightforward:

To Migrate CC Pulse/ CCPulse+

1. Migrate Configuration Server to release 7.5 or higher. You cannot use Configuration Server 6.x, and Genesys does not recommend the use of Configuration Server 7.2.

   See the detailed instructions in Chapter 5, "Setup of Migration Environment."
2. Make sure that your Stat Server release is 8.0.000.26 or higher.
3. Stop all CC Pulse/CCPulse+ applications.
4. Save a copy of your storage files.
5. Uninstall CC Pulse/CCPulse+.
6. Configure and install CCPulse+ 8.0.*x*.
7. **Optional:** If you intend to use the historical aspect of CCPulse+ against an existing Data Mart, migrate your existing Historical Reporting environment by following the appropriate procedure in this chapter for your current environment.
8. Verify that the DB Server version is 7.6.000.09 or higher.
9. Start CCPulse+ and verify that it functions properly.
10. **Optional:** If you want to use customized templates, thresholds, or action scripts from the copy of your storage files that you saved in Step 4, use the CCPulse+ Import/Export Utility to add them to the new storages. Use of this utility is described in the *Reporting 8.0 CCPulse+ Help*.

Notes: The CCPulse+ templates that are created by CCPulse+ 7.5.*x* are not fully compatible with CCPulse+ 7.2 (or earlier releases). If these 7.5.*x* templates are used with earlier releases of CCPulse+, many statistics will display incorrect values of `-1` in the Report Views pane.

Contrarily, CCPulse+ 7.5.*x* is fully compatible with templates that are created by earlier releases of CCPulse+.

Chapter

17 Reporting Service Pack 6.5

Genesys 6.5 Reporting Service Pack is a template-migration utility, that redefines the metrics in existing solution-specific pre-6.5 Reporting templates. This chapter provides information for administrators who deploy the Genesys 6.5 Reporting Service Pack.

Notes: The Genesys 6.5 Reporting Service Pack is recommended for templates migration from releases 5.*x*, 6.0, or 6.1 to release 6.5.

To migrate templates from releases 6.5 or 7.*x* to a higher-release 7.*x*, use the Reporting Wizard of the particular 7.*x* release to which you are migrating the templates.

This chapter includes the following sections:

The following are among the topics that are addressed in this chapter:

- Two options to consider: Upgrading `Service Factor` and upgrading stat types
- Migrations that you must perform before you deploy the Service Pack
- Genesys applications that *must* be running and those that *must not* be running.
- Deploying and running this Service Pack.
- Restoring your environment if you decide to return to your previous metric definitions.

Note: Upgrading stat types in this Service Pack changes the definitions of all `Total` metrics (`Total_Calls`, `Total_Calls_On_Hold`, and so forth) so that they are based on the number of status occurrences, instead of on the number of DN actions.

Overview

The Reporting Service Pack contains a set of upgrades that enable your migrated CC Analyzer environment to collect historical information based on the metric definitions that are provided in the 6.5 release of Genesys solutions. If you have migrated or are planning to migrate your solution environment to 6.5, you might want to run this Service Pack to benefit from the enhanced metric definitions that are provided with the Genesys 6.5 release. Deploying this Service Pack is not mandatory to complete your Genesys migrations. Information in this chapter will help you to decide whether to roll out this Service Pack, given its changes.

Deployment Processes

The following sections will guide you through the decision-making and deployment processes:

- "Considerations and Recommendations" on page 315 present issues to consider before you deploy this Service Pack.
- "Analyzing Differences in Definitions" on page 320 will assist you with your analysis.
- "Deployment Planning" on page 324 will help you prepare your environment for a smooth execution.
- "Running the Upgrade" on page 326 provides step-by-step instructions for executing the Service Pack.
- "Restoring from Backup" on page 330 describes how to return to your previous environment if you choose this route.

Do not run this Service Pack if any of these conditions exist at your site(s):

- You have not migrated your Reporting environment to version 6.1, Tier II (with a 6.5 Stat Server), or version 6.5.
- The Data Sourcers in your Reporting Environment are all IS Data Sourcers (for a Contact Center Database that is deployed by the Internet Contact Solution), or
- You are installing your Genesys solution for the very first time.

Genesys Enterprise Routing (ERS) 6.5, Outbound Contact 6.5, and Internet Contact Solution 6.5 are bundled with Framework 6.5 and Reporting 6.1 as well as with Reporting 6.5. Your solution 6.5 DVD includes 6.5 layout templates with metrics that are representative of the types of data that might be useful. These layout templates specify the metrics that are to be gathered and

how they are gathered. This Service Pack does not change the quantity or list of metrics in each template, but it does affect how Data Sourcer gathers data.

Definitions Deploying this Service Pack applies improved definitions to the following:

- Statistical (stat) types.
- The `Service Factor` metric provided in reports that typically measure Routing Point and queue performance.

You should understand that this utility *does not* upgrade CC Analyzer components that are defined within the Configuration Server, nor does it upgrade your 6.0 Operational Data Storage (ODS) or Data Mart databases to be 6.5-compliant (or 6.1-compliant). This utility does not change the values of previously collected data; instead, it updates metadata, that is, the rules that specify how data is collected.

Refer to Chapter 16, "Reporting Migration Procedures," on page 307 earlier in this document for information about migrating CC Analyzer data and components.

Considerations and Recommendations

This section addresses issues with which you should be familiar before you roll out the Genesys 6.5 Reporting Service Pack. The issues include:

- Data collection
- `Service Factor` changes
- Stat-type changes
- Shared Stat Server implications
- Shared stat-type implications
- The effect on report layouts, Brio report templates, and Brio reports

This section also provides recommendations on how to deploy this Service Pack most effectively.

Data Collection Must Stop

Deployment of this Service Pack requires that Stat Server and Data Sourcer be stopped. This means that historical data collection ceases during deployment. You will want to plan to run this utility during non-peak hours to minimize the loss of data. You may, however, roll out this upgrade in stages by upgrading only selected ODSs at a time and saving the upgrade of other ODSs for a later time.

Note: Deployment of this Service Pack *will not* affect or cause the loss of preexisting historical data in your ODS.

Service Factor Considerations

The `Service Factor` metric is used in Brio report templates to measure queue and Routing Point performance. As defined in previous releases, this metric measured the percentage of *distributed* calls that fell within a specified service-level threshold. Its prior definition was the following:

```
(100% * nDistributedinTh1) /
(nCallsEntered - TotalShortAbandoned)
```

This definition has changed in the 6.5 release to better align with CC Pulse's definition, which measures the percentage of *answered* calls that fell within the following threshold:

```
(100% * nAnsweredinTh1) /
(nAnswered + nAbandoned - nAbandonedinTh2)
```

Both formulas yield meaningful but different results. You must carefully evaluate which `Service Factor` formula suits your needs before you run the Service Pack. (The Service Pack provides the `Service Factor` option to upgrade this metric.) Also note that you should reset time ranges for this metric in DMA if you customized them.

This change affects how the `N_DISTRIB_IN_TR` metric is measured in the `QUEUE`, `ROUTEPOINT`, and `GROFQUEUES` layout templates and how the `N_CALL_DIST_T` metric is measured in the `CC_Q`, `CC_RP`, and `CC_GRP` layout templates. Previously, these metrics were based on the `Total_Calls_Distributed_In_Threshold` stat type. In release 6.5, these metrics are based on the `Total_Calls_Answered_In_Threshold` stat type. Also, the change in these metrics' definition will yield incorrect data in those 6.5 Brio reports that are run by using data spanning-time periods both before and after the upgrade. Service Factor can exceed 100percent.

Figure 4 on page 317 shows the 6.5 metric definition in Data Modeling Assistant (DMA). Notice that the name of the metric no longer reflects its actual meaning.

Shared Stat Servers

Stat-type definitions are updated in Data Sourcer and in Stat Server. If another application (such as CC Pulse) uses the Stat Server that is assigned to Data Sourcer, it too will calculate metrics based on the improved stat-type definitions. See Figure 4.

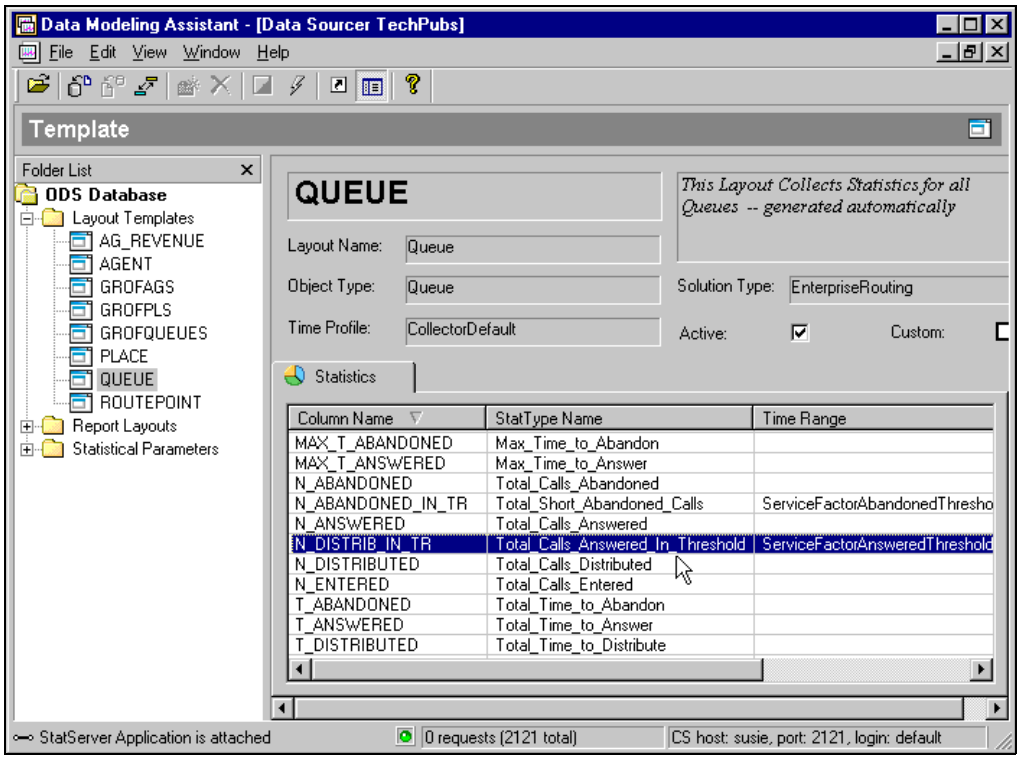

Figure 4: The N_DISTRIB_IN_TR Metric Changes Stat Types in Release 6.5

Stat-Type Considerations

The pre-6.5 solution-specific reports had some known limitations, including some averages and percentages that were miscalculated over small time intervals, such as a 15-minute period.

New Statistical Categories

To resolve these issues, two new statistical categories were introduced in the 6.1Stat Server and 6.5 Stat Server:

- `TotalAdjustedNumber`
- `TotalAdjustedTime`

Refer to "Calculation Rules for Statistical Categories" in the *Reporting Technical Reference Guide for the Genesys 6.5 Release* document for an in-depth explanation of these categories (with examples).

These statistical categories properly count finished statuses at the end of each interval. The general rule that is followed by the 6.5 canned reports is that only finished statuses or actions are counted for the `Agent` and `Place` reports, allowing the proper calculation of percentages and averages. However, the total time of a single status for 15-minute time interval, for example, can exceed 15 minutes if this status was started in a previous time interval.

When you select the `Upgrade Stat Types` option, the upgrade utility adjusts *all* stat-type definitions that are found in the XML files that you select to upgrade to their 6.5 stat-type definition—whether or not the definition changed between releases—just to be thorough. You should decide whether you want

the benefit from the new metric definitions before you start the upgrade process, because, after you upgrade, your 6.5 reports might generate results that are different results from those that were generated in previous releases. The changes are especially visible in the smaller time intervals. Table 46 shows the metrics that changed most significantly:

Table 46: Metrics Most Affected by Stat-Type Changes

Data Mart Metric	Stat-Type Name	Corresponding ODS Layout Template
AV_T_NOT_READY	Total_Not_Ready_Number	AGENT, AGENT GROUP, PLACE, PLACE GROUP
AV_T_WAIT	Total_Wait_Number, Total_Wait_Time	AGENT, AGENT GROUP, PLACE, PLACE GROUP
AV_T_WORK	Total_Work_Number, Total_Work_Time	AGENT, AGENT GROUP, PLACE, PLACE GROUP
N_NOT_READY	Total_Not_Ready_Number	AGENT, AGENT GROUP, PLACE, PLACE GROUP
N_NOT_READY_CUST	Total_Not_Ready_Number	CC_AG, CC_GRAG
N_WAIT	Total_Wait_Number	AGENT, AGENT GROUP, PLACE, PLACE GROUP
N_WAIT_CUST	Total_Wait_Number	CC_AG, CC_GRAG
N_WORK	Total_Work_Number	AGENT, AGENT GROUP, PLACE, PLACE GROUP
N_WORK_CUST	Total_Work_Number	CC_AG, CC_GRAG
T_NOT_READY	Total_Not_Ready_Time	AGENT, AGENT GROUP, PLACE, PLACE GROUP
T_NOT_READY_CUST	Total_Not_Ready_Time	CC_AG, CC_GRAG
T_WAIT	Total_Wait_Time	AGENT, AGENT GROUP, PLACE, PLACE GROUP
T_WAIT_CUST	Total_Wait_Time	CC_AG, CC_GRAG
T_WORK	Total_Work_Time	AGENT, AGENT GROUP, PLACE, PLACE GROUP
T_WORK_CUST	Total_Work_Time	CC_AG, CC_GRAG

With these stat types, the subject changed from `DNAction` to `AgentStatus`, that is, the source of data for all objects that are indicated by the stat type stems from the status of an agent instead of the actions of a regular directory number.

Other stat types pick up this subject change too; however, the values that are reported by the associated metrics do not change as much as they do with the metrics listed in Table 46 on page 318.

Refer to "Statistical Actions and Statuses" in the *Reporting Technical Reference Guide for the Genesys 6.5 Release* document for information about the differences between actions and statuses.

You cannot selectively choose which metric definitions you want to upgrade within a layout template using the Service Pack.

Canned and Custom Report Layouts

If you built report layouts based directly on the Genesys-provided layout templates prior to applying this Service Pack, when you deploy this Service Pack, your report layouts will begin collecting metrics based on the improved definitions. You do not need to re-create report layouts.

For example, in your 6.0 CC Analyzer environment, you create three report layouts —AgentA, AgentB, and AgentC—based on the ERS-provided `AGENT` layout template. You migrate your Framework and Reporting environments to 6.5 and 6.1 respectively. You review the changes in the metric definitions between 6.0 and 6.5 and decide that you want to use the latter for data collection. After you run this Service Pack—having selected the `AGENT` layout template for upgrade—the AgentA, AgentB, and AgentC report layouts automatically start collecting data based on the new definitions when Data Sourcer has been restarted.

If you created report layouts based on customized layout templates, you have to weigh the decision to upgrade manually the stat types in those templates against not running this upgrade at all.

Canned and Custom Brio Report Templates

The canned Brio report templates use the `N_DISTRIB_IN_TR` metric only to measure the `Service Factor` definition. However, if your customized reports use this metric, you might have to do one of the following:

- Readjust this metric's definition to meet your needs.
- Avoid upgrading this metric's definition.

The `Service Factor` metric that is used in the 6.5 canned Brio report templates is now calculated in the Brio report template itself and not, as in previous releases, during aggregation where it was stored in the Data Mart.

Service Factor Metric

You have the following options:

- If you decide to upgrade the `Service Factor` definition while running this Service Pack, you must then use the 6.5 Brio report templates.

- If you decide not to upgrade the `Service Factor` definition, continue to use your current Brio report templates when you generate reports to use the corresponding `Service Factor` definition.
- You also have the option to customize the provided 6.5 Brio report templates and adjust the formula to meet your needs.

Recommendations

Genesys strongly recommends that you:

- Thoroughly analyze the differences in definitions between your current release and 6.5. (See "Analyzing Differences in Definitions" on page 320)
- Upgrade all the layout templates that you use if you decide to deploy this Service Pack.
- Back up your ODS(s) before you deploy this Service Pack.
- Upgrade all Data Sourcers that are used by a single ETL Runtime at the same time.
- Do not run this upgrade utility against IS Data Sourcer.

This Service Pack slightly changes the majority of your stat type definitions. Depending on the release you had just prior to migration, one to two new statistical categories are introduced that more accurately match the metrics that are collected with your expectations of what those metrics represent. Analyze the differences to determine if the change will seriously affect your analysis of the reports you generate. If you decide to proceed, Genesys recommends that you upgrade all the layout templates that you use. If, for example, your Reporting environment uses both the `QUEUE` and `ROUTEPOINT` layout templates, select both of them for upgrade. Also, if you are rolling out in stages, upgrade all Data Sourcers that are used by a single ETL Runtime simultaneously to avoid data discrepancies.

Analyzing Differences in Definitions

With each Genesys release, improvements were made to the solution-provided layout templates. For this reason, it is impractical to list all the differences in metric definitions between those releases and the 6.5 release. Instead, this chapter demonstrates how you can determine what the differences are. After analysis, you can decide if you want to update the definitions and, if so, which set of definitions you should update. See the following section and documents:

- "Stat Server Stat Type Definitions" which are listed in the *Reporting Technical Reference Guide for the Genesys 6.5 Release* document. This discussion provides in-depth descriptions for 6.5 stat types.
- "Stat-Type Listing" on page 330 which shows the stat types that are used by each layout template.

- *Reporting 6.5 Data Modeling Assistant Help*.

Comparison of Stat Type Definitions

You can compare Stat-Type definitions that are used by CC Analyzer in at least three ways:

- Observe your current stat-type definitions within DMA and compare them to those that are listed in the *Reporting Technical Reference Guide for the Genesys 6.5 Release* document.
- Observe your current stat-type definitions in Stat Server and compare them to those that are listed in the *Reporting Technical Reference Guide for the Genesys 6.5 Release* document.
- Compare an export of definitions for your current layout templates to the comparable Genesys-provided 6.5 layout templates.

Each method is briefly described in the next section.

Methods of Comparing Stat-Type Definitions

Method 1

Open your Data Sourcer application in a DMA document window and select a layout template. The right pane shows the metrics that are to be collected and their stat type definitions. Double-click a stat-type definition to open the `Statistic Wizard-StatTypes` dialog box, which displays the stat type's definition.

Figure 5, for example, shows the definition for the `Total_Calls_Outbound` stat type. Compare this definition to that which is listed in the *Reporting Technical Reference Guide for the Genesys 6.5 Release* document. You will notice that the 6.5 definition uses the `TotalAdjustedNumber` statistical category, instead of the `TotalNumber` category in this particular example

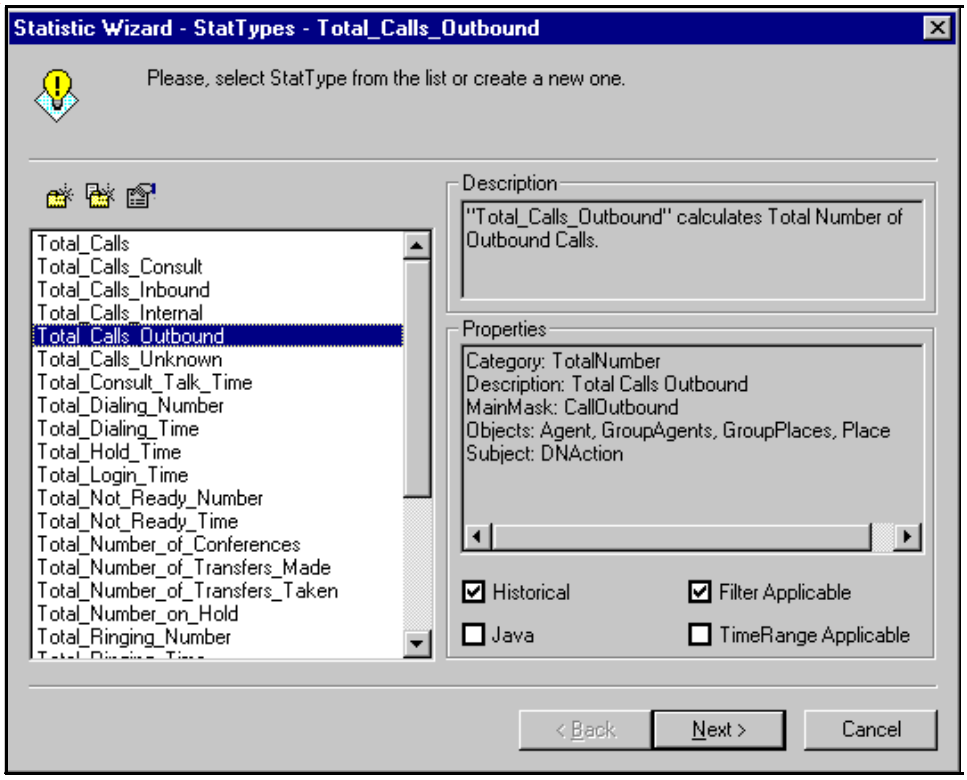

Figure 5: Using the Statistic Wizard to Observe Stat-Type Definition

Method 2 From the Configuration Manager, view the application properties of the Stat Server that is used by your targeted Data Sourcer. On the `Options` tab, double-click a stat type and note its definition. For example, Figure 6 shows the definition for the `Total_Login_Time` stat type. Compare this definition to the one that is listed in the *Reporting Technical Reference Guide for the Genesys*

6.5 Release document. You will notice that the 6.5 stat-type definition adds the `~NotMonitored` status to its main mask specification.

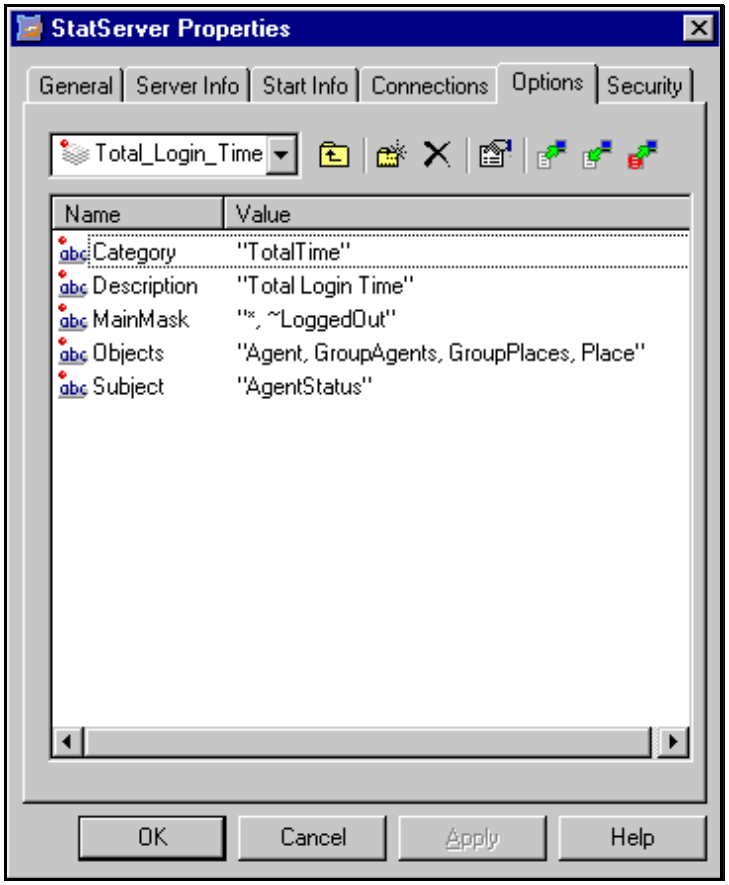

Figure 6: Using the Configuration Manager to Observe Stat-Type Definition

Method 3 Using DMA, export a layout template to an XML file and visually compare this file with the one that is provided by your 7.0 solution. For example, Figure 7 shows two cutaways of the ERS `AGENT` template in XML format for 6.1 and 6.5. Notice the differences in the `Total_Calls_Outbound` stat type:

- Statistical category changes from `TotalNumber` to `TotalAdjustedNumber`.
- Subject changes from `DNAction` to `AgentStatus`.
- No longer distinct by connection ID.
- Statistical Category ID changes from `1` to `40`.
- Stat-type description is improved.

```
<?xml version="1.0" ?>
- <IM_DataBase Version="6.1">
  - <LayoutTemplate TemplateName="AGENT" LayoutName="Agent Layout" MetagroupClass="100"
        .
        .
        .
  - <StatType StatTypeId="37" StatTypeName="Total_Calls_Outbound" IfHistorical="Yes"
      FiltersApplicable="Yes" TimeRangeApplicable="No" StatusProfileApplicable="No"
      StatTypeDefinition="Category=TotalNumber Objects=Agent, GroupAgents, GroupPlaces, Place
      MainMask=CallOutbound Subject=DNAction Formula=DistByConnID Description=Total Calls
      Outbound" StatCategoryId="1">
      <Description>Total Number of Outbound Calls</Description>
    </StatType>

<?xml version="1.0" ?>
- <IM_DataBase Version="6.5.004">
  - <LayoutTemplate TemplateName="AGENT" LayoutName="Agent Layout" MetagroupClass="100"
        .
        .
        .
  - <StatType StatTypeId="9" StatTypeName="Total_Calls_Outbound" IfHistorical="Yes"
      FiltersApplicable="Yes" TimeRangeApplicable="No" StatusProfileApplicable="No"
      StatTypeDefinition="Category=TotalAdjustedNumber Subject=AgentStatus Objects=Agent,
      GroupAgents, GroupPlaces, Place MainMask=CallOutbound Description=Total number of times
      agent status "Outbound Call" completed" StatCategoryId="40">
      <Description>Total number of times agent status "Outbound Call" completed</Description>
    </StatType>
```

Figure 7: Two Cutaways of AGENT.xml

Deployment Planning

This section describes how to prepare your environment for running this Service Pack.

System Requirements

You can run this utility on the following platforms:

- Windows NT, SP 6
- Windows XP
- Windows 2000
- Windows Server 2003

Genesys Requirements

Before you deploy this Service Pack, you must have already migrated:

- Your Framework environment to version 6.5.

- CC Analyzer in your Historical Reporting environment to CC Analyzer 6.1 or later. Specifically, all CC Analyzer Data Sourcer applications that you intend to upgrade must be of version 6.1.012 or later; likewise, all Stat Servers that are used by these Data Sourcers must be version 6.5 or later.

Note: Migrating your solution environment before you deploy this Service Pack is not required.

In addition, the set of 6.5 layout templates (in the form of XML files) must be readily available. These 6.5 templates are found on your solution DVD. If you are upgrading more than one solution, you might need to copy each solution's XML files to one dedicated directory.

What Must Be Running

Make sure that the following applications are running before you deploy this Service Pack:

- The Configuration Server
- The ODS RDBMS(s) used by the Data Sourcers that are to be upgraded
- The DB Servers that are used by the Data Sourcers for connection to these RDBMSs

What Must Be Stopped

Stop the following applications before you deploy this Service Pack:

- All Data Sourcer applications that you intend to upgrade.
- All Stat Server applications that are used by these Data Sourcers.
- Any other applications that are connected to ODS (such as DMA or ETL Runtime).

Note: Close any document windows that contains Data Sourcer applications that are to be upgraded within DMA.

Deployment and Removal

The utility is shipped as a self-extracting archive that contains a set of files.

To Unpack the Archive

1. Run the executable file.

   The initial dialog box appears (see Figure 8 on page 326).
2. Provide the path to a directory into which you want to extract the files.
3. Click `Unzip`.

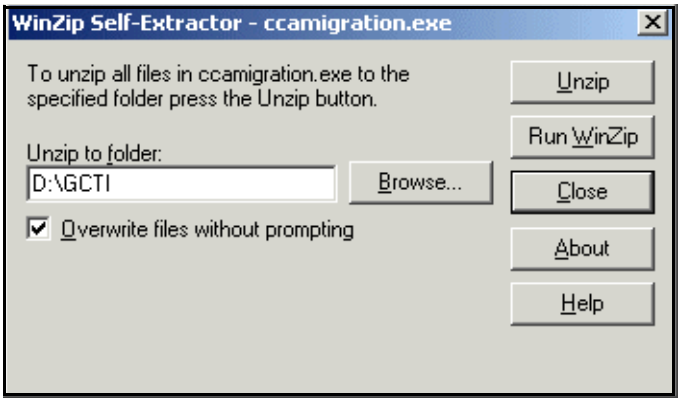

Figure 8: Extracting files from the Reporting Service Pack

To Uninstall the Service Pack

- Delete all the files.

Running the Upgrade

After you decide which options you want from the upgrade, deploy the package, and have the proper applications running or stopped as described in the previous chapter.

To Run the Upgrade

1. Start the `CCA_Migration.exe` executable file from its home directory (for example, double-click the file from within Microsoft Internet Explorer).

   The utility prompts you to log in to your Configuration Server (see Figure 9).

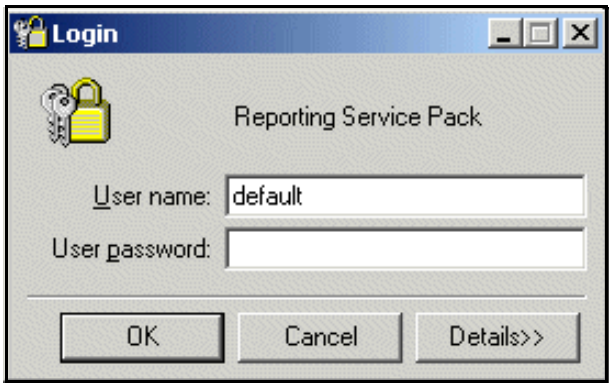

Figure 9: Login Dialog Box

2. Log in to the Configuration Server in which your targeted Data Sourcer is registered.
3. Provide the additional connection information that is listed below by clicking `Details>>`.
   - Host of your Configuration Server

- Port number of your Configuration Server
- Application name of your Configuration Manager

4. Click `OK` in the `Login` dialog box in Figure 9 on page 326.

   When you have successfully logged in, the `Reporting Service Pack` dialog box appears as shown in Figure 10. By default, the utility selects all CC Analyzer Data Sourcer applications for upgrade.

> **Note:** IS Data Sourcer applications are not displayed.

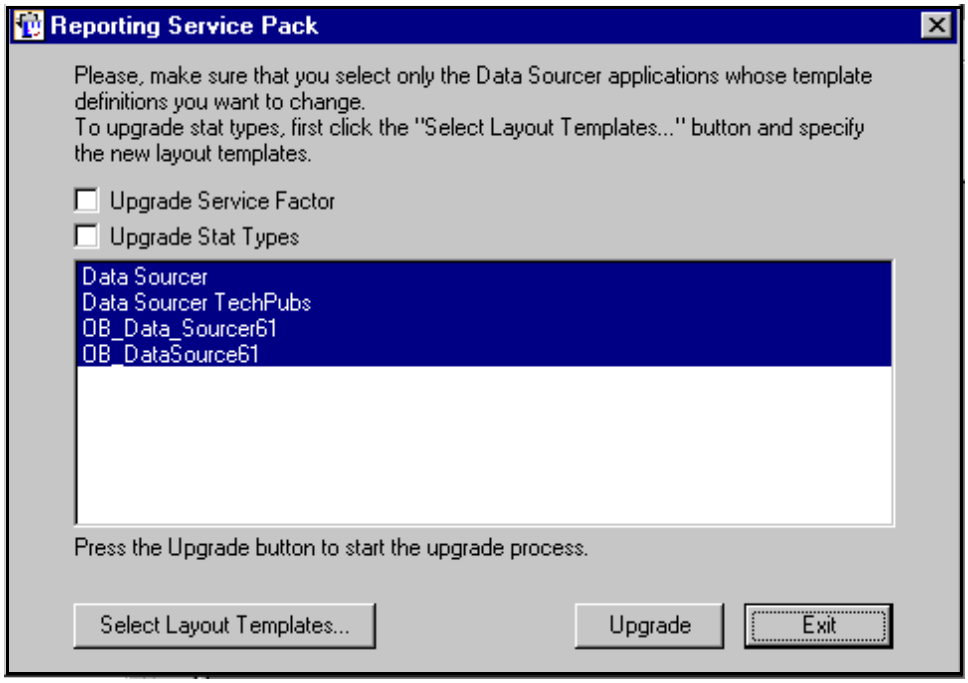

Figure 10: Reporting Service Pack Dialog Box

> **Note:** At any time from this point forward—before you click `Upgrade` —you can click `Exit` to terminate the utility without upgrading.

5. Mark the appropriate check boxes to upgrade `Service Factor` and/or stat types. (See "Considerations and Recommendations" on page 315 to understand the advantages of upgrading each type.)
6. Select the Data Sourcer applications that you want to upgrade at this time. By default, the utility selects all Data Sourcer applications.
7. Right-click applications in this list box to clear or reselect them.

> **Warning!** Double-check all your selections closely. The upgrade process is irreversible if you did not back up your ODS.

8. If you marked the `Upgrade Stat Types` check box in Step 3, click `Select Layout Templates...` button to select the set of 6.5 layout templates from which a new definition should be imported.

Note:

- If you did not mark the `Upgrade Stat Types` check box in Step 3, proceed to Step 9.
- Layout templates contain the stat-type definitions that are applied to the Stat Server that is assigned to Data Sourcer. These templates are provided in XML format on your solution DVD.

The utility displays the `Select files` dialog box as shown in Figure 11.

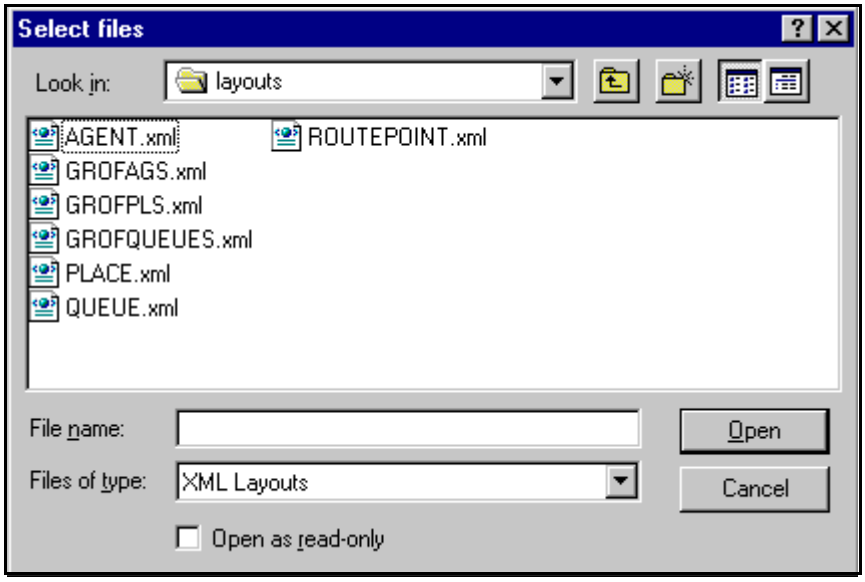

Figure 11: Select Files Dialog Box

9. Select all the 6.5 XML files that you want to use for Stat Type definition source, and then click `OK`. To select more than one file, press the CTRL key while you are selecting other files. Click `Open` when you are done.

Note: The utility returns you to the `Reporting Service Pack` dialog box that is shown in Figure 10 on page 327.

10. On the `Reporting Service Pack` dialog box, click `Upgrade` to start the upgrade process.

    The utility silently upgrades one Data Sourcer at a time and displays a final closing message if everything was upgraded successfully (see Figure 12).

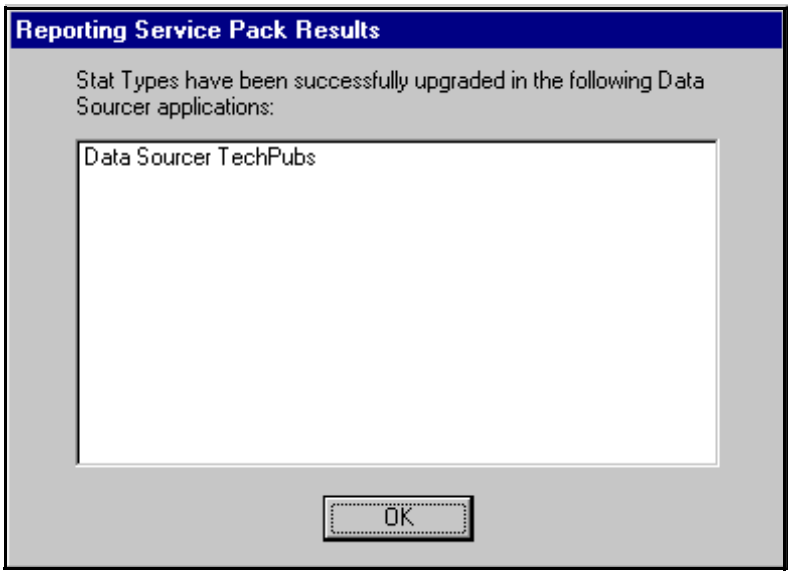

Figure 12: A Successful Upgrade Message

11. Click `OK`. If, however, the utility encountered errors, it prompts you for further action (see Figure 13).

> **Note:** After the selected Data Sourcer applications have been upgraded, they will disappear from the list of available Data Sourcers in Figure 7. If you want to upgrade definitions that you had not previously indicated in these Data Sourcer applications, you must exit the utility then restart it.

Figure 13: An Unsuccessful Upgrade Message

This message can differ depending on the error encountered. Take the appropriate action.

12. Click `Exit` to close the utility.

Should you encounter problems, recheck that the requisite conditions have been met before you contact Genesys Technical Support. For instance, if you get the following error message:

```
Cannot Start DBClient of type <RDBMS type>
```

the DB Server for Data Sourcer's ODS is probably not running. Also, if you get the following error message:

```
Category TotalAdjustedNumber can't be found in ODS
```

your Data Sourcer version is probably not 6.1.012 or later as required. Migrate your Reporting environment to version 6.1, as documented in Chapter 16, "Reporting Migration Procedures," on page 307.

Restoring from Backup

If, for some reason, the upgrade was unsuccessful or if you want to return to the definitions in your previous Reporting environment, perform the following steps:

To Return to Previous Definitions

1. Exit the Reporting Service Pack utility.
2. Restore your ODS from backup.
3. Open a document window in DMA for a Data Sourcer application that you changed.
4. Click `Synchronize` on the toolbar to restore Stat Server stat-type definitions for that Data Sourcer.
5. Repeat these steps for each Data Sourcer application you changed using the Reporting Service Pack.

Contact Genesys Technical Support for assistance or if you encounter technical difficulties.

Stat-Type Listing

This section lists the stat types that are found in the solution-provided layout templates. Several of the stat types are used in more than one layout template; so, when you select a particular layout template for upgrade, you should understand that stat types that are shared with other templates are upgraded, too—even if you did not explicitly select the other layout template for upgrade.

With the exception of the `N_DISTRIB_IN_TR` metric, the stat-type assignments to metrics in layout templates across the Genesys releases have not changed. The `CampCancel` stat type, for example, was originally introduced in 6.0 and was assigned to the `N_CANCEL` metric in the `CALL_LS`, `CMP`, and `CMP_CALL_L` layout templates. The same is true in the 6.5 release of these layout templates. The `N_DISTRIB_IN_TR` metric is used in the `QUEUE`, `ROUTEPOINT`, and `GROFQUEUES` layout templates.

The stat types in Table 47 on page 331 marked with an asterisk are also used by CC Pulse. If CC Pulse uses the same Stat Server as CC Analyzer, then you will notice changes in CC Pulse reports too.

Table 47: List of Stat Types by Layout Template for Release 6.5

Layout Template / Stat Type	AGENT	CALL_LS	CC_AG	CC_GRAG	CC_GRQ	CC_Q	CC_RP	CMP	CMP_CALL_L	CMP_GR	GROFAGS	GROPLS	GROFQUEUES	O_AGENT	O_AGENT_GR	PLACE	QUEUE	ROUTEPOINT
CampAbandoned*		✓						✓	✓									
CampAnsweringMachine*		✓						✓	✓									
CampAnswers*		✓						✓	✓									
CampBusy*		✓						✓	✓									
CampCallbacksCompleted*		✓						✓	✓									
CampCallbacksMissed*		✓						✓	✓									
CampCallbacksScheduled*		✓						✓	✓									
CampCancel*		✓						✓	✓									
CampDialMade*		✓						✓	✓									
CampDoNotCall*		✓						✓	✓									
CampDropped*		✓						✓	✓									
CampFaxModem*		✓						✓	✓									
CampGrActivatedDuration*										✓								
CampGrDeactivatedDuration*										✓								
CampGrRunningDuration*										✓								
CampGrSystemErrorDuration*										✓								
CampGrWaitingAgentsDuration*										✓								
CampGrWaitingPortDuration*										✓								
CampGrWaitingRecordsDuration*										✓								
CampNoAnswer*		✓						✓	✓									
CampNoRPC*		✓						✓	✓									
CampPersonalCallbacksCompleted*		✓						✓	✓									
CampPersonalCallbacksMissed*		✓						✓	✓									
CampPersonalCallbacksScheduled*		✓						✓	✓									
CampRecordsCompleted*		✓						✓	✓									
CampSITDetected*		✓						✓	✓									
CampSITInvalidNum*								✓										
CampSITNoCircuit*		✓						✓	✓									
CampSITOperIntercept*		✓						✓	✓									
CampSITReorder*		✓						✓	✓									
CampSITUnknown*		✓						✓	✓									

Table 47: List of Stat Types by Layout Template for Release 6.5 (Continued)

Layout Template / Stat Type	AGENT	CALL_LS	CC_AG	CC_GRAG	CC_GRQ	CC_Q	CC_RP	CMP	CMP_CALL_L	CMP_GR	GROFAGS	GROPLS	GROFQUEUES	O_AGENT	O_AGENT_GR	PLACE	QUEUE	ROUTEPOINT
CampSITVacant*		✓						✓	✓									
Max_Time_to_Abandon					✓	✓	✓						✓				✓	✓
Max_Time_to_Answer													✓				✓	✓
Max_Time_to_Distribute					✓	✓	✓											
Total_ASM_Engage_Time														✓				
Total_Calls*	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Calls_Abandoned*					✓	✓	✓						✓				✓	✓
Total_Calls_Answered					✓	✓	✓						✓				✓	✓
Total_Calls_Answered_In_Threshold					✓	✓	✓						✓				✓	✓
Total_Calls_ASM_Outbound*														✓	✓			
Total_Calls_ASM_Received*														✓	✓			
Total_Calls_Consult*	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Calls_Dialed			✓	✓														
Total_Calls_Distributed*					✓	✓	✓						✓				✓	✓
Total_Calls_Entered					✓	✓	✓						✓				✓	✓
Total_Calls_Inbound*	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Calls_Internal*	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Calls_Outbound*	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Calls_Unknown	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Consult_Talk_Time	✓										✓	✓		✓	✓	✓		
Total_Dialing_Number	✓										✓	✓		✓	✓	✓		
Total_Dialing_Time	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Hold_Time	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Login_Time*	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Not_Ready_Number	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Not_Ready_Time*	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Number_of_Conferences	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Number_of_Transfers_Made	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Number_of_Transfers_Taken	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Number_on_Hold	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Ringing_Number	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Ringing_Time	✓		✓	✓							✓	✓		✓	✓	✓		

Table 47: List of Stat Types by Layout Template for Release 6.5 (Continued)

Layout Template / Stat Type	AGENT	CALL_LS	CC_AG	CC_GRAG	CC_GRQ	CC_Q	CC_RP	CMP	CMP_CALL_L	CMP_GR	GROFAGS	GROPLS	GROFQUEUES	O_AGENT	O_AGENT_GR	PLACE	QUEUE	ROUTEPOINT
Total_Short_Abandoned_Calls					✓	✓	✓						✓				✓	✓
Total_Talk_Time*	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Talk_Time_ASM_Outbound														✓	✓			
Total_Talk_Time_Inbound	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Talk_Time_Internal	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Talk_Time_Outbound	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Talk_Time_Unknown	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Time_ASM_Engage															✓			
Total_Time_to_Abandon					✓	✓	✓						✓				✓	✓
Total_Time_to_Answer													✓				✓	✓
Total_Time_to_Distribute					✓	✓	✓						✓				✓	✓
Total_Wait_Number	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Wait_Time	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Work_Number	✓		✓	✓							✓	✓		✓	✓	✓		
Total_Work_Time*	✓		✓	✓							✓	✓		✓	✓	✓		

Genesys

Part

4 Outbound Contact Migration

The chapters in this section describe the migration paths to Outbound Contact 8.x and also present step-by-step procedures for migrating from previous releases to release 8.x. The chapters also discuss component changes and the other Genesys software that supports and enables Outbound functionality.

The information is divided into the following chapters:

- Chapter 17, "Introduction to Outbound Contact Migration," on page 337 discusses the preliminary migration procedures and the migration order for Outbound Contact 8.x.
- Chapter 18, "Changes in Outbound Contact," on page 345 provides information that you need to upgrade components, configuration options, fields, Calling Lists and their formats in Outbound Contact from release 6.5.x to release 8.x.
- Chapter 19, "Outbound Contact Migration Procedures," on page 383 presents the procedures for migrating to Outbound Contact 8.x.

Chapter

17 Introduction to Outbound Contact Migration

This chapter discusses the preliminary migration procedures and the migration order for Outbound Contact 8.x.

There are three main sections in this chapter:

Interoperability Among Outbound Contact Components

The term *interoperable* means that different versions of Genesys solutions, components, or options can work together compatibly during the migration process.

Two Levels of Interoperability

Interoperability of Genesys products can occur at two levels of migration:

- **Interoperability at the suite-level** means combining different versions of solutions and options during the migration process. See the *Genesys Interoperability Guide* for information about the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.
- **Interoperability at the solution-specific level** means combining different versions of the components of a particular solution while upgrading them sequentially during the migration process. As you upgrade each of the

components in sequence, you need to know if it is backward-compatible with the other components of the Outbound Contact.

Interoperability Details for Release 8.x

Interoperability among Outbound Contact Components

- Release 8.x Outbound Contact components (OCS, CPD Server, and CPD Proxy Server) are backward compatible with the 7.6 and 7.5 releases of those components.

  Note: When in a mixed environment the available Outbound Contact features and functionality are that of the lowest release component.

- Customers on 7.x or 6.x releases of Outbound Contact can migrate to the 8.x version of those components (OCS, CPD Server and CPD Proxy Server).

  Note: While both Administrator and OCM may be used in OC 8.x, OCM will not be enhanced for future releases and stays at the 7.6 feature level.

- Customers with 7.x treatments can continue to use those treatments in 8.x. However, traditional 7.x and 8.x SCXML treatments cannot be used simultaneously in the same dialing session.
- Outbound Contact 8.1 uses new SCXML standard. SCXML scripts developed for Outbound Contact 8.0 require some migration. For details, see “SCXML Changes” on page 380.

Interoperability with Other Genesys Products

Outbound Contact 8.x is compatible with Genesys Management Framework (MFWK) 7.5, 7.6, and 8.x components. OC 8.x provides 8.x features in a mixed Genesys MFWK 7.5, 7.6, or 8.0 environment with the following exceptions:

- Genesys Administrator requires MFWK 8.x and must be installed for Outbound Contact 8.x to support Genesys Administrator functionality.
- The Outbound VoIP deployment requires GVP 8.1 or higher, which is dependent on Management Framework 8.x.
- Use of Outbound Schedules requires Outbound Contact 8.1 and Genesys Administrator 8.1.
- On-demand agent reassignment requires Outbound Contact 8.1, Universal Routing Server 8.1 and Interaction Routing Designer 8.1.
- Support for call result Silence requires Outbound Contact 8.1 and SIP Server 8.1.

Migration Paths

These are the migration paths for different releases of Outbound Contact:

- If you are using Outbound Contact Server (OCS) 8.0 and are migrating to 8.1, follow the procedures on page 383.
- If you are using OCS 7.6 and are migrating to 8.x, follow the procedures starting on page 386.
- If you are using OCS 7.5 and are migrating to 7.6, follow the procedures starting on page 388.
- If you are using OCS 7.2 and are migrating to 7.5, follow the procedures starting on page 390. When migrating to Outbound Contact 7.5, you must upgrade to Framework 7.5 first.
- If you are using OCS 7.1 and are migrating to 7.2, follow the procedures starting on page 393.
- If you are using OCS 6.5.2 and are migrating to 7.2, follow the procedures starting on page 397.
- If you are using OCS 6.5.100.27—6.5.100.30 and migrating to 7.2, follow the procedures starting on page 400.

  Note: If you are using Outbound Contact Server 6.5.200.05 or a previous version, you must upgrade OCS first, then upgrade Framework to 7.2.

- If you are using OCS 6.5.xxx —6.5.100.26 and migrating to 7.2, follow the procedures starting on page 403.
- If you are using OCS 5.1.5, 6.0, or 6.1, follow this two-step migration path:
  - For the OCS versions 5.1.5, 6.0, or 6.1 to OCS 6.5.2, see the *Genesys 6.5 Migration Guide.*
  - For the OCS versions 6.5.2 to 7.1, see "Migration from 6.5.2 to 7.2" on page 397.

Note: If you are upgrading Outbound Contact Server to 7.2 and are also using CPD Server, then you must also upgrade CPD Server to 7.2 and vice versa. CPD Server must be of the same release as Outbound Contact Server. You cannot perform a partial upgrade of these Outbound Contact components.

Compatibility Among Components of Outbound Contact

Outbound Contact 8.x is compatible with Framework 7.5, 7.6, 8.0, and 8.1.

Note: In Outbound Contact 8.x, Genesys Administrator 8.x replaces Outbound Contact Manager for provisioning, monitoring, and deploying Outbound Contact, and Campaign Group operations (like start, stop, load, unload, and so on). However, OCM 7.6 can still be used.

The following lists compatibilities between releases of Outbound Contact prior to release 8.x:

- Outbound Contact 7.6 is compatible with Framework 7.5 and 7.6.
- Outbound Contact 7.5 (which includes Outbound Contact Server, Outbound Contact Manager and may include CPD Server and CPD Proxy Server), requires Framework 7.5. It is not compatible with previous releases of Framework.
- Outbound Contact Server 7.2 operates with these versions of the other components of Outbound Contact:
  - OCM 7.1, 7.0, 6.5.2, and 6.5.1
  - CPD Server 7.2
- Outbound Contact Manager 7.1 operates with these versions 7.0, 6.5.2, and 6.5.1 of Outbound Contact Server.

  Note: There is no direct interaction between OCM and CPD Server, so interoperability is not an issue between these two components of Outbound Contact.

- CPD Server 7.2 operates with Outbound Contact Server 7.2. CPD Server 7.2 is not compatible with earlier versions of OCS.

  Note: If you are using a Meridian switch and CPD Server is configured with a DN type `position` for the channel setup, then the DN configuration must be changed to `Extension`. In the 7.2 release, `Position` is not a valid value for a CPD Server DN type. For more information, see the *Outbound Contact 7.2 Deployment Guide*.

- CPD Proxy Server 7.2 operates with multiple CPD Servers 7.2.

Additional Information about Migration

This additional information will assist you with your migration.

Multi-Site/ Single-Site and Multi-Tenant Migration

Common interoperability rules apply for Outbound components. If the components are compatible, there is no difference between single-site and

multi-site configuration. It is possible to migrate all sites or all tenants simultaneously. It is also possible to migrate separate sites independently.

Note: When migrating to Outbound Contact 7.5, you must upgrade to Framework 7.5 first.

Other Migration Issues

CPD Server supports only the Dialogic drivers that are provided on the Dialogic DVD.

Note: For an overview of other migration issues, refer to Chapter 1, "Migration Roadmap," of this guide.

Preliminary Migration Procedures

Complete the following procedures before migrating to Outbound Contact 8.x:

Database and Operating System Upgrades

Note: If you want to upgrade your operating system before migrating your Genesys product, contact Professional Services.

Before migration, you might need to upgrade the operating system and/or database used by Outbound Contact. To determine whether you must perform these upgrades:

1. Go to the Genesys Technical Support website.
2. Click the `Knowledge Base` link.
3. Click the `Release Information` link.
4. Click the `General` link.
5. Click the `Genesys Supported Operating Systems and Databases` link.

If you need to upgrade your operating system and/or database, consult your vendor documentation. If you need help to perform upgrades, contact Genesys Professional Services.

Preliminary Migration Procedures

The migration process includes these preliminary procedures for Outbound Contact 8.x:

1. Review Chapter 1, "Migration Roadmap," of this guide.

2. Examine the order in which to upgrade the Genesys software required for Outbound Contact 8.x. See "Order of Migration" on page 342.
3. Review these changes:
   - "Changes in Outbound Contact Components" on page 346.
   - "Changes in Configuration Options" on page 356.
   - "Changes in Reserved User Data Keys" on page 377.
   - "Changes in Fields and Field Values" on page 379.
   - "Changes in Calling Lists and Formats" on page 380.
   - "Changes in Licensing" on page 381.

   Note: These sections only discuss changes that directly affect the migration of this product. For complete information about changes in Outbound Contact 8.0, see the *Outbound Contact 8.0 Deployment Guide;* for complete information about changes in Outbound Contact 8.1, see the *Outbound Contact 8.1 Deployment Guide.*

To review other issues pertaining to the migration of Outbound Contact from release 6.5.x to 8.x, see "Additional Information about Migration" on page 340.

Order of Migration

This section provides general steps about migrating Outbound Contact solution. For more information, see the appropriate migration information in Chapter 19 on page 383.

Migration and Upgrade Order

Migrate or upgrade the applications in Outbound Contact and other relevant data in the following order:

1. Install Licensing Manager.

   Refer to these documents for information about licensing requirements and for instructions on installing the license(s):
   - *Genesys Licensing Guide:*
   - *Outbound Contact 8.1 Deployment Guide*
2. Migrate Management Framework.

   Management Framework is the foundation for all Genesys products, solutions, and options. Run the Configuration Conversion Wizard (CCW) to migrate the configuration database before the Configuration Layer migration.

Note: The Outbound Solution Wizard is also known as the Outbound Contact Configuration Wizard.

Genesys recommends that you use Genesys Administrator instead of the Outbound Contact Configuration Wizard for configuring your enterprise, because much of the wizard functionality is integrated into Genesys Administrator.

This Wizard was not updated for the 8.x releases. The Outbound Contact Configuration Wizard 7.5 is included in the Outbound Contact 8.1 package.

For more information about migrating the layers and components of Management Framework, see the section for "Framework Migration" in this guide. The following information lists abilities and restrictions before migrating:

- You can migrate to the 8.x Configuration Layer while still using 7.6 Outbound components.
- You can migrate to the 7.6 Configuration Layer while still using 7.5 Outbound components.
- You must migrate to the 7.5 Configuration Layer before installing the 7.5 Outbound components.
- You can migrate to the 7.2 Configuration Layer while still using 6.5.2 Outbound components.
- You can also migrate to the 7.2 Configuration Layer while still using OCS 6.5.200.05 and later releases.

3. Migrate data.

   CCW can be used to migrate the necessary objects in Configuration Manager and Genesys Administrator. Calling Lists and Do Not Call Lists that were used in release 7.2, 7.5, and 7.6 can be used in release 8.x. For Calling Lists and the Do Not Calls list that were used before release 7.2, see "Migration from 7.1 to 7.2" on page 393.

4. Upgrade Agent Desktop.

   The Agent Desktop is not a component of Outbound Contact. However, it uses the OCS-Desktop protocol, which evolves from one release of Outbound Contact to the next. Refer to the Agent Desktop documentation for information about upgrading this application.

5. Upgrade other dependent Genesys components.

   When upgrading many components, determine if the component you upgrade is backward compatible with older components that have not been upgraded yet. See "Interoperability Among Outbound Contact Components" on page 337 of this guide.

6. Install and configure Genesys Administrator. For information, see the *Framework Genesys Administrator Deployment Guide* for the release you are installing.
7. Import the Application templates.
   - In Configuration Manager, the Application templates are accessible through:

     `Configuration > Environment > Applications Templates>`
   - In Genesys Administrator, the Application templates are accessible through:

     `Provisioning > Environment > Applications Templates>`

   For instructions for importing an application template, see the *Outbound Contact 8.1Deployment Guide* or *Framework 8.1 Genesys Administrator Help.*
8. Create and configure the Outbound Contact `Application` objects.

   When you use Genesys Administrator to create an application template, you have the option to import metadata. If you select this option, when you create the template it will contain application options set with the default values. As a result, all applications that you create using this template will include all of the options set to the default values. Select this option, if you want your applications to contain all configuration options. You can adjust the option values later. For more information on the options, see the "Outbound Contact Configuration Options" chapter in the *Outbound Contact 8.1 Deployment Guide*.
9. If you are creating a new solution rather than upgrading components of the existing solution, import the Solution template for Outbound Contact 8.1.

   For information about using a Solution, see the *Outbound Contact 8.1 Deployment Guide.*
10. Reporting templates have not changed since release 7.2. Upgrade your reporting templates if you have not done so. See the Reporting documentation for information about importing Reporting templates.

Note: In release 7.5, the following outbound-specific statistics were added: `CurrentAgentAssignment`, `CurrentNumberAgentsAssigned`, and `CurrentCampaignGroupDBID`.

In release 7.6, the following outbound-specific statistics were added: `CurrentTrustFactor` and `CurrentFeedbackAccuracy`.

For more information about these statistics, see the "Outbound-Specific Statistics for Stat Server" section in Chapter 5 of the *Outbound Contact 8.1 Deployment Guide.*

Chapter

18 Changes in Outbound Contact

This chapter provides information to upgrade components, configuration options, data keys, fields, formats, calling lists, and so on in Outbound Contact from the 6.5 releases to the 8.1 release. For a comprehensive list of changes from release to release, see the relevant versions of the *Outbound Contact Deployment Guide* for the releases between your current release and the 8.1 release.

This chapter includes the following sections:

Notes:
- When migrating to Outbound Contact 8.1, you can upgrade to Framework 8.1 first, but it is not necessary, because Outbound Contact 8.1 is compatible with Framework 8.0 and 7.6. However, if you choose to use an older version of Framework, some new features (for example, Roles, implemented in Framework 8.0) will not be available to you.
- You must upgrade to Outbound Contact 7.2 before you can migrate to release 7.5 or higher. When doing so, migrate Framework first before migrating Outbound Contact.
- You must first migrate to release 6.5 if you are migrating to release 7.2 from releases 5.1.5, 6.0, or 6.1. Refer to the *Genesys 6.5 Migration Guide* for more information.

Changes in Outbound Contact Components

Table 48 lists the high-level component changes in Outbound Contact. For more detailed information, see the *Outbound Contact 8.1 Deployment Guide.*

Table 48: Component Changes

Current Component Name	Type of change	Changed in Version #	Details (optional)
Release 8.1			
Outbound Contact Server	The Safe Dialing feature has been added.	8.1.3	The Safe Dialing feature has been added to protect outbound dialing from abnormal overdialing caused by incorrect configuration or routing.
Outbound Contact Server	The Assured Connection functionality has been improved.	8.1.3	Engaging the most suitable agent by using user-defined fields of a calling list records has been added for the Assured Connection functionality.
Outbound Contact Server	The Smart Logout feature has been improved.	8.1.3	The Smart Logout feature now reassigns agents to Inbound activity after the LogOutAcknowledge message is received.
Outbound Contact Server	New Database Support	8.1.3	PostgreSQL DBMS, release 9
Outbound Contact Server	New Predictive GVP dialing mode with new Average Distribution Time optimization parameter	8.1.2	This dialing mode is optimized for automated self-service outbound call processing via VXML applications with a fraction of outbound calls reaching agents for assisted service. The new Average Distribution Time parameter enables the user to control how long outbound calls requiring assisted service wait in the queue.
Outbound Contact Server	New Maximum Gain optimization method for Predictive Dialing Modes	8.1.2	This optimization method dynamically predicts the optimal dialing pace to maximize the total gain of a Campaign Group.

Table 48: Component Changes (Continued)

Current Component Name	Type of change	Changed in Version #	Details (optional)
Outbound Contact Server	Support for new operating system	8.1.2	Native support of 64-bit Red Hat Enterprise (RHE) Linux 5.
Outbound Contact Server	Enhancements for compliance with regulatory requirements	8.1.2	To enhance compliance with regulatory requirements, OCS now enables the following: • A call recipient can now opt-out from any further outbound calls in ASM mode, both when dialing with CPD Server and with SIP Server in a VoIP environment. • Compliance with Federal Information Processing Standards (FIPS).
Outbound Contact Server	Customizable counters for Calling List-related real-time reporting	8.1.2	Ability to define up to five custom counters for Calling List related real-time reporting, and to re-define existing counters.
Outbound Contact Server	Flexibility in processing callbacks and rescheduled records by arbitrary Campaigns	8.1.2	Ability to omit verification of the Campaign DBID when retrieving callbacks and rescheduled records for a particular Campaign Group.
Outbound Contact Server	Flexibility in handling of Web or Application Server connection failure during predial validation	8.1.2	The `validation-timeout-call-result` option now also defines the call result assigned to a record in scenarios when the Web Application Server cannot be connected for pre-dial validation.
Outbound Contact Server	Ability to specify CPN Digits per Calling List without using SCXML	8.1.2	The `CPNDigits` option is now supported by OCS at the Calling List configuration object level.
Outbound Contact Server	Enhanced security features	8.1.2	• Ability to use the `tag` option to hide sensitive information contained in logs. • Support for Transport Layer Security (TLS).

Table 48: Component Changes (Continued)

Current Component Name	Type of change	Changed in Version #	Details (optional)
CPD Server	DTMF tones detection during and after play of the drop announcement in ASM modes	8.1.2	Ability to detect DTMF tones during and after the playing of the drop announcement message in ASM modes when the called party presses buttons on the touch tone phone. Ability to deliver string of detected tones to OCS.
CPD Server	Enhanced security features	8.1.2	• Ability to use the `tag` option to hide sensitive information contained in logs. • Support for Transport Layer Security (TLS).
CPD Server	Enhancements for compliance with regulatory requirements	8.1.2	Compliance with Federal Information Processing Standards (FIPS).
Outbound Contact Server	Enhancements for compliance with regulatory requirements.	8.1.1	To enhance compliance with regulatory requirements, OCS now enables the following: • Provide an outbound campaigns administrator with an automated way to collect the data necessary to reasonably estimate the Answering Machine Detection (AMD) false positive and false negative rates. • Ability to automatically include the AMD false positive rate in the calculations of the Abandoned rate and the Overdial rate for Predictive campaigns. • Ability to automatically include the AMD false positive rate in the Overdial rate calculation for Predictive campaigns. • Ability to calculate the Abandoned Rate over a fixed period of time (24 hours).

Table 48: Component Changes (Continued)

Current Component Name	Type of change	Changed in Version #	Details (optional)
Outbound Contact Server	Guaranteed connection of calls in Predictive or Progressive dialing mode in a VoIP environment.	8.1.1	When running a campaign in Progressive or Predictive mode in a VoIP Environment, OCS now allows users to configure which outbound calls are to be dialed with a guaranteed connection to an agent. This is very useful when contacting high value customers, and for regulatory compliance.
Outbound Contact Server	Support for a Display Name on a per-campaign or per-record basis when dialing with SIP Server.	8.1.1	OCS now allows the user to define a Display Name (in addition to CPN Digits) on a per-campaign group and per-record basis when dialing with SIP Server, or with CPD Server in HMP transfer mode.
Outbound Contact Server	Configurable parameters of audit log files.	8.1.1	Audit trail logging now allows the configuration of the path and filename, expiration time or size, and segmentation limit; these parameters are no longer hardcoded as in previous releases.
CPD Server	Detection of answering machine final beep	8.1.1	CPD Server used with DM3 boards or with HMP software can now detect the final beep following an answering machine greeting on a call. This ensures that a voice message left on the customer's answering machine device is recorded from the beginning and not truncated.
CPD Server	Enhanced support for caller ID	8.1.1	CPD Server can now deliver Caller ID to SIP Server in HMP transfer mode (as configured by the CPN Digits OCS setting). SIP Server then passes on Caller ID further so that it appears on the customer's phone display.

Table 48: Component Changes (Continued)

Current Component Name	Type of change	Changed in Version #	Details (optional)
CPD Server	Support for a host with multiple NIC on board.	8.1.1	CPD Server used with HMP software is now capable of properly supporting a host with multiple Network Interface Cards (NIC) on board.
Outbound Contact Server	Added support for Outbound Schedules.	8.1	Outbound Schedules enable you to automate periodical runs (daily, weekly, or monthly) of dialing sessions.
Outbound Contact Server	Added increased agent efficiency with Agent Assignments.	8.1	Agents can now be reassigned to other activities when the dialing session they are currently assigned to lacks ports for dialing and/or lacks calling records.
Outbound Contact Server	Added on-demand agent reassignment to handle inbound activity.	8.1	Agents assigned to outbound activities can now be temporarily reassigned to handle inbound traffic on-demand, based on a request from a URS strategy.
Outbound Contact Server	Added automatic rereads of Do Not Call Lists.	8.1	OCS can be configured to periodically reread the Do Not Call lists at a specified time of day and a specified frequency.
Outbound Contact Server	Added improved security with HTTPS support in HTTP Proxy.	8.1	OCS now supports the HTTPS protocol when acting as an HTTP Server.
Outbound Contact Server	Added an enhancement for the Predictive algorithm for small groups of agents.	8.1	OCS can now exclude current outbound calls with long dialing durations from pacing calculations when using the Advanced Small Group predictive algorithm.
Outbound Contact Server	Added SCXML treatment enhancements.	8.1	OCS can now set mandatory and user-defined fields in records from within an SCXML treatment. OCS can also pass an arbitrary key-value pair defined in an SCXML treatment in the Extensions attribute of the outbound call request.

Table 48: Component Changes (Continued)

Current Component Name	Type of change	Changed in Version #	Details (optional)
Outbound Contact Server	Added support for call result Silence when dialing via SIP Server.	8.1	For Outbound Voice over IP implementations using 8.1 SIP Server, support for the call result Silence enables you to configure OCS to drop or connect a call with the Silence call result, or to store it in the calling list and optionally apply a treatment.
Release 8.0			
Outbound Contact Server	Support for outbound campaigns in a pure VoIP environment	8.0	Enables automated outbound dialing in a VoIP environment. This feature leverages the capabilities of SIP Server, GVP Media Control Platform (MCP), and Resource Manager. It also includes a new Progressive GVP dialing mode.
Outbound Contact Server	Support for HTTP protocol to communicate with clients using HTTP requests and responses	8.0	Enables clients like GVP to send requests over HTTP protocol.
Outbound Contact Server	SCXML-based Treatments	8.0	Allows you to create customer-focused treatments written in SCXML (State Chart Extensible Markup Language), providing greater flexibility on how to contact customers and handle call results.
Outbound Contact Server	Time-optimized predictive algorithm	8.0	Provides contact centers with the flexibility to adjust the dialing pace for a specific period. The main benefit of this new algorithm is that it allows you to increase the Busy Factor but still keep the overdial rate (ODR) within legislative limits.
Outbound Contact Server	Instant messaging	8.0	Supports processing the Instant Messaging phone type.

Table 48: Component Changes (Continued)

Current Component Name	Type of change	Changed in Version #	Details (optional)
Outbound Contact Server	Support for Genesys Administrator	8.0	A new customer interface provides the capability to provision, monitor, and deploy Outbound Contact 8.0 and other Genesys solutions. With Genesys Administrator 8.0.2, you can also administer campaigns and campaign sequences. **Note:** This interface replaces Outbound Contact Manager (OCM). However, you can still use OCM 7.6 with Outbound Contact 8.0.
Outbound Contact Server, CPD Server, and CPD Server Proxy	Agent assignment in multiple Campaigns in ASM modes	8.0	Enables agents to be dynamically assigned to multiple campaigns in ASM modes, increasing efficiency by leveraging agents with their associated skills.
Outbound Contact Server	Support for the ESP protocol in autodialing modes	8.0	Supports operations on calling records for third-party clients (for example, Interaction Server) over a dedicated ESP port in all dialing modes.
Outbound Contact Server	Optional prevention of canceling records on desktops	8.0	A new `cancel-on-desktop` option prevents OCS from canceling records that are already on an agent's desktop. This allows the agent to complete calls and their associated records that are still in progress, rather than locking the records and preventing their completion.
Outbound Contact Server	Ability to select the first (preferred) record for dialing	8.0	A new `treatment-preferred-contact-field` option allows you to define the field name in the Calling List table that OCS uses for the given record to determine if this record in a chain should be used for the first chain dial attempt.

Table 48: Component Changes (Continued)

Current Component Name	Type of change	Changed in Version #	Details (optional)
Outbound Contact Server	Recall interactions in Push Preview dialing mode	8.0	OCS can recall all interactions that have not yet begun processing when a Dialing Session for a Campaign is unloaded. This prevents the corresponding records from being updated as `Stale` and significantly shortens the unloading time of the session.
Release 7.6			
Outbound Contact Server	New agent desktop notification, `ReadyTime`, added to the Outbound Desktop protocol	7.6.1	To increase campaign performance in the Predictive/Predictive with seizing dialing modes for small groups, desktop sends the `ReadyTime` event to OCS, providing the estimated time remaining (in seconds) until the agent will become `Ready`. OCS replies with either `ReadyTimeAcknowledgement` or `ReadyTimeError`. For more information, see the *Outbound Contact 7.6 Reference Manual.*
Outbound Contact Server	New real-time outbound-specific statistics	7.6.1	Two outbound-specific statistics were added in the 7.6.1 release: `CurrentTrustFactor` and `CurrentFeedbackAccuracy`. Both statistics are reported to Stat Server via the Outbound Contact Java extension. For more information, see the *Outbound Contact 7.6 Deployment Guide.*
CPD Server	HMP Service Update (SU) driver compatibility change	7.6.1	CPD Server 7.6.1 is compatible with HMP SU 174 and higher.

Table 48: Component Changes (Continued)

Current Component Name	Type of change	Changed in Version #	Details (optional)
Outbound Contact Server	`CampaignStopped` event	7.6	OCS no longer supplies the `GSW_CAMPAIGN_MODE` attribute in the `CampaignStopped` desktop notification.
Outbound Contact Server	`CampaignStatusRequest`	7.6	OCS responds to this `CampaignStatusRequest` with the same message that is delivered to the agent's desktop upon the agent's login, if the agent is identified as a participant in the active/running campaign group.
CPD Server	HMP SU driver compatibility change	7.6	CPD Server 7.6.0 is compatible with HMP SU drivers up to and including version 150.
Release 7.5			
Outbound Contact Server	Multi-campaign agent assignment	7.5	Enables agents to participate in several campaigns at once.
Outbound Contact Server	Genesys Voice Platform (GVP) integration	7.5	Reduce resource costs through the use of automated agents to proactively contact customers that do not require a live agent for caller interactions.
Outbound Contact Server	Customer Information Management (CIM) support	7.5	• Extends outbound calling list and campaign management to multimedia channels. • Improves agent efficiency by matching the customer with the appropriate agent. • Enables prioritization of outbound interactions with other interaction types for blending purposes.
CPD Server	Support for Dialogic Host Media Processing (HMP) software	7.5	CPD Server now supports HMP software.

Table 48: Component Changes (Continued)

Current Component Name	Type of change	Changed in Version #	Details (optional)
Release 7.2			
CPD Server	Support for only Dialogic System Release 6	7.2	CPD Server supports only the Dialogic drivers (for Service Release 6) that are provided on the CPD Server DVD.
CPD Server	Support for DM/V boards	7.2	Support both in transfer mode with line-side protocols and in `ASM` mode with ISDN.
Release 7.0			
CPD Server	Additional protocol support	7.0	Support for Melcas Protocol in ASM mode on DM3 hardware.
CPD Server	Support for DM3 boards	7.0	Support for these DM3 families of boards with CPA functionality in ASM mode (Melcas only): DM/V1200-4E1 (number of ports = 120) DM/V600-2E1 (number of ports = 60) DM/V960-4T1 (number of ports = 96) DM/V480-2T1 (number of ports = 48)
CPD Proxy Server	New component	7.0	A new CPD Proxy Server, which connects multiple servers, supports call load distribution. The Proxy Server distributes calls among several CPD Servers when the number of CPD Ports required to service a big Agent Group exceeds the number of ports that a single CPD Server can support. The call load distribution is configurable.

Changes in Configuration Options

Table 49 on page 357 explains the changes to configuration options for the components in Outbound Contact. For more detailed information, see the *Outbound Contact 8.1 Deployment Guide*

Notes:
- Outbound Contact 7.5 and higher now use the dash character (-) in new option names. Previously, option names could contain the underscore character (_).
- In release 7.5, all `Campaign-Level` and `Agent` or `Place Group-Level` options were moved to other levels. Some were moved to Campaign Group-Level. See the *Outbound Contact 7.5 Deployment Guide* for details.

Table 49: Configuration Option Changes

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
Release 8.1				
OCS	`pa-safe-dialing`	New option	8.1.3	This option supports the Safe Dialing feature. If the value of this option is set to true or yes, OCS stops outbound dialing if there are 30 or more abnormal abandoned calls among the last 100 outbound calls thatwere answered by live persons, including calls that were transferred to agents but then abandoned. Abandoned calls are considered abnormal if they were abandoned or dropped while there were available agents in the Ready state (for Transfer mode) or Engaged state (for ASM mode). OCS restricts the number of abnormal abandoned calls detected to the number of available agents during each 1-second interval. OCS resumes outbound dialing and re-initiates the counting of last abnormal abandoned calls when the Campaign Group is stopped and started, or if the value of this option is set to a different valid value. If the value of this option is set to false or no, OCS does not stop outbound dialing because of abnormal abandoned calls. **Note:** OCS does not support Safe Dialing for IVR groups when the value of the ivr_group option is set to true, or when one or more Places that are associated with the Campaign Group contain Voice Treatment Port DNs.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	agent-assignment-max-num	Updated option	8.1.3	The agent-assignment-max-num option is now always taken into account, irrespective of the value specified for the agent-assignment-min-num option The agent-assignment-max-num option has priority over the agent-assignment-min-num option. If the agent-assignment-max-num option is less than the agent-assignment-min-num option, OCS ignores the agent-assignment-min-num option and applies the agent-assignment-max-num option to determine the minimum number of agents in Campaign Group for agent reassignment. For example, if the value of the agent-assignment-max-num option is set to 10 and the value of the agent-assignment-min-num option is set to 20, OCS considers that the maximum and minimal numbers of agents in Campaign Group are equal to 10.
OCS	digits_detection	New option	8.1.2	Specifies if DTMF detection occurs on the CPD Server side. For SIP Server and VoIP environment, this option instructs OCS to activate the VoiceXML application for the opt-out feature.
OCS	digits-detection-pattern	New option	8.1.2	Specifies the string of keys (digits) that represents the signal for which OCS awaits before generating an opt-out request.
OCS	digits-detection-timeout	New option	8.1.2	Specifies the timeout limitation for digit detection.
OCS	digits-reaction	New option	8.1.2	Specifies how OCS reacts to the call when it receives the opt-out signal.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	pa-abandon-rate-limit	New option	8.1.2	Specifies the maximum allowed value of the expected Abandon Rate, as a percentage.
OCS	pa-selfcheck-adt-threshold	New option	8.1.2	Specifies the percentage of the target Average Distribution Time that the Predictive algorithm uses as the threshold to report the dialing performance degradation.
OCS	predictive_patience_time	New option	8.1.2	Specifies the starting value of the average patience time for the Predictive GVP dialing mode.
OCS	report-procedure-body	New option	8.1.2	Specifies the body SQL code of the Reporting stored procedure.
OCS	report-procedure-location	New option	8.1.2	Specifies the location of custom code, either within a standard reporting stored procedure, or as a completely customized procedure body.
OCS	log-call-stats	New section	8.1.1	Contains the standard logging control options used to configure Audit Logging: · all · expire · segment
OCS	all (in log-call-stats section)	New option	8.1.1	The location of the Audit Log files.
OCS	expire (in log-call-stats section)	New option	8.1.1	The setting for when audit logs expire.
OCS	segment (in log-call-stats section)	New option	8.1.1	The maximum size of an Audit Log file segment.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	assured-connect	New option	8.1.1	Controls if guaranteed connection is in effect for the OCS Application as a whole or only for an individual Campaign Group. This option can also be set for individual record/chain of records using SCXML scripting.
OCS	assured-connect-field	New option	8.1.1	Defines the field name and field values used to determine if the record must be dialed with a guaranteed connection to an agent. Can be defined at the OCS Application, Campaign and Calling List levels.
OCS	CPNDisplayName	New option	8.1.1	Defines the value of the DisplayName attribute that OCS passes to SIP Server.
OCS	pa-odr-period-start-time	New option	8.1.1	Defines the start of the 24-hour period during which statistics are collected for the calculation of the Abandon Rate. The calculation is reset at the start of each 24-hour period.
OCS	pa-amd-false-positive-right	New option	8.1.1	Specifies the AMD false positive rate as a percentage of total calls answered by live individuals. This value is used in the calculation of the Abandoned Rate.
OCS	pa-amd-test-percentage	New option	8.1.1	Specifies the percentage of randomly selected AMD calls passed to agents during the test for the AMD false positive rate.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	pa-hit-ratio-min	New option	8.1.1	Specifies, as a percentage (percent (%), the minimum value of the Hit Ratio used to predict the dialing rate used by the Classical Predictive algorithm. If the current estimated Hit Ratio is less than the value set by this option, OCS uses the value of this option for pacing calculations.
CDP Server	am-beep-detect	New option	8.1.1	Enables detection of the beep tone at the end of answering machine greeting.
CDP Server	am-beep-detect-timeout	New option	8.1.1	Defines the maximum time that CPD Server waits for final AM beep tone, if AM beep tone detection is enabled.
CDP Server	am-beep-tones	New section	8.1.1	Contains up to 10 definitions of final beep tone frequencies, specified by am-beep-tone-<n>
CDP Server	am-beep-tone-<n>	New option	8.1.1	Describes up to 10 (given by <n>) tones used for the final AM beep tone detection.
OCS	agent-reassignment-if- waiting-ports	New option	8.1	Specifies whether agents should be reassigned to other activities if there is a shortage of available dialing ports for the current dialing session.
OCS	agent-reassignment-if- waiting-ports-timeout	New option	8.1	The timeout after which the associated reassignment occurs.
OCS	agent-reassignment-if- waiting-records	New option	8.1	Specifies whether agents should be reassigned to other activities if there are no available dialing records for the current dialing session.
OCS	agent-reassignment-if- waiting-records-timeout	New option	8.1	The timeout after which the associated reassignment occurs.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	ocs-urs-interact	New option	8.1	Specifies whether Claim Agent requests from Universal Routing Server should be executed by OCS.
OCS	dnc-reread	New option	8.1	Specifies whether OCS should perform automatic rereads of the Do Not Call lists.
OCS	pa-exclude-long-dialing	New option	8.1	Enables or disables the exclusion of current outbound calls with long dialing durations from pacing calculations when OCS uses the Advanced Small Group predictive algorithm.
OCS	inbound-agent-assignment-min-num	New valid value added: -1	8.1	If you set the value for this option to -1, OCS assigns agents to the inbound activity only if the agents cannot be assigned to any associated Campaign Groups due to the restrictions imposed by the options regarding the agent assignment (maximum number of assigned agents, waiting records, and so on).
OCS	agent-assignment-min- num	New valid value added: -1	8.1	If you set the value for this option to -1, OCS assigns agents to the activity only if the agents cannot be assigned to any associated Campaign Groups due to the restrictions imposed by the options regarding the agent assignment (maximum number of assigned agents, waiting records, and so on).

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	treatment-uri	New value for file:// type resources : ‘:’	8.1	When writing a file URL, use ‘:’ instead of ‘|’. Previous Syntax: file:///C|/inetpub/wwwroot/sample02.scxml New Syntax: file:///C:/inetpub/wwwroot/sample02.scxml
Release 8.0				
OCS	am-beep-detection	New option	8.0	Specifies whether GVP is forced to detect an answering machine beep tone before playing music or starting the VXML application in Outbound VoIP dialing modes.
OCS	asm_drop_announcement_data	Updated	8.0	Existing option updated so that it can be used in a VoIP environment.
OCS	asm_drop_am_announcement_data	Updated	8.0	Existing option updated so that it can be used in a VoIP environment.
OCS	beep-on-merge	New option	8.0	Enables the playing of a beep tone to the agent on the engaging call immediately before the agent is bridged to the customer call when running in Outbound VoIP dialing modes.
OCS	call_answer_type_recognition	Updated	8.0	Existing option updated so that it can be used in an Outbound VoIP environment.
OCS	call_transfer_type	Updated	8.0	Existing option updated so that it can be used in an Outbound VoIP environment.
OCS	call_wait_in_queue	Updated	8.0	Existing option updated so that it can be used in an Outbound VoIP environment.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	cancel-on-desktop	New option	8.0	Specifies how OCS behaves when it receives a RequestRecordCancel request but finds records on an agent's desktop that have the specified phone or the customer ID.
OCS	cpd-on-connect	New option	8.0	Specifies when call progress analysis is started in Outbound VoIP dialing modes.
OCS	cpd-recording	New option	8.0	Enables or disables the recording of the call progress detection phase of the call for VoIP dialing modes.
OCS	customer_id	Updated	8.0	Can be now used to identify customers by their ID for record cancellation.
OCS	merge-method	New option	8.0	Defines the OCS merge method for outbound and engaging calls in the Outbound VoIP ASM dialing modes.
OCS	on-bridging-unable	New option	8.0	Defines OCS's behavior when there is no established engaging call on the same MCP/Media Server and it is not possible to use the bridging method.
OCS	pa-odr-interval	New option	8.0	Specifies the time interval, in minutes, that OCS uses to match the target value of the Overdial Rate.
OCS	pa-queue-expire	New option	8.0	Enables you to control the expiration time for calls in queue when using the predictive algorithm.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	predictive_algorithm	New value, time_optimized_odr	8.0	New value associated with the time-optimized predictive algorithm. When using this value, OCS monitors the predictive_max_overdial_rate. If it is greater than zero but less than the current overdial rate, OCS switches from the Predictive to the Progressive dialing mode.
OCS	recall-on-unload	New option	8.0	Specifies if OCS should recall interactions submitted to Interaction Server but not yet processed when the Campaign Group is unloaded.
OCS	treatment-holidays-table	New option	8.0	(For SCXML Treatments) Defines the name of the Statistical Table configuration object that OCS uses to determine the dates and time ranges for holidays.
OCS	treatment-preferred-contact-field	New option	8.0	Defines the field name in the Calling List table that OCS uses for the given record to determine if this record in a chain should be used for first chain dial attempt.
OCS	treatment-uri	New option	8.0	(For SCXML Treatments) Defines the URI to the SCXML treatment script resource.
OCS	treatment-weekdays-table	New option	8.0	(For SCXML Treatments) Defines the name of the statistical table configuration object that OCS uses to determine the time ranges for business weekdays.
Release 7.6				
OCS	pa-hitratio-min	New option	7.6.1	Specifies the minimum value (in percent) of the hit ratio that is used to predict the dialing rate by the Classical Predictive algorithm.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	record-count-use-timeframe	New option	7.6.1	Specifies if OCS considers the time_from/time_till boundaries when the number of ready records and ready chains in the calling list is calculated.
OCS	outbound_answer_action	New value, hard_acw	7.6.1	When set to this value, OCS sends a request to T-Server to force the teleset to the After Call Work state after an outbound call is established on an agent's DN.
OCS	outbound_release_action	New value, hard_acw	7.6.1	When set to this value, OCS sends a request to T-Server to force the teleset to the After Call Work state after an outbound call is released from an agent's DN.
OCS	asm_drop_am_announcement_data	New option	7.6.1	(For ASM modes only) Specifies the message to be played if an answering machine is detected before releasing the established customer call in the ASM modes.
OCS	pa-inbound-ignore	New option	7.6.1	Specifies which method OCS uses to handle the sampled value of inbound traffic in dialing pace calculations. This enables users to specify how to handle dialing-pace calculations for outbound and engaging calls in the Progressive with seizing and the Predictive with seizing dialing modes with respect to inbound traffic.
OCS	pa-selfcheck-awt-threshold	New option	7.6.1	Specifies the percentage of the target Average Waiting Time that the predictive algorithm (PA) uses as the threshold to report a dialing performance degradation.
OCS	pa-selfcheck-bf-threshold	New option	7.6.1	Specifies the percentage of the target Busy Factor that the PA uses as the threshold to report a dialing performance degradation.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	pa-selfcheck-odr-threshold	New option	7.6.1	Specifies the percentage of the target Overdial Rate that the PA uses as the threshold to report about a dialing performance degradation.
OCS	pa-selfcheck-interval	New option	7.6.1	Specifies the time interval, in minutes, that the PA uses to calculate the current values of the optimization parameters and to track any suspicious condition for reporting dialing performance degradation.
OCS	outbound_agent_outlier_limit	Affected by predictive-longcalls-truncation option	7.6.1	If configured, the predictive-longcalls-truncation option takes precedence over this option and the outbound_agent_outlier_limit is not taken into account by OCS.
OCS	predictive_algorithm	New value	7.6.1	The new value of advanced_small_group was added to increase the performance of campaigns in the Predictive and Predictive with seizing modes for small agent groups; Campaign Group-Level object or Application level
OCS	predictive-longcalls-truncation	New option	7.6.1	Enhances the performance in the Predictive and Predictive with seizing modes by not taking into account calls which are significantly longer statistically than the rest of the calls.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	small_group_size	Upper limit for valid values was removed	7.6.1	Now this option has no maximum value.
OCS	time-to-ready-tolerance	New option	7.6.1	Specifies the allowed variance on time estimates when an agent will become Ready.
OCS	user_data_section_name	Functionality increased	7.6	Supports adding customer user data for the Campaign configuration object by explicitly identifying the type of data to be attached.
OCS	dialing_rate_limit	Existing option added to the switch level	7.6	Specifies the maximum number of calls per second shared among all sessions running in auto-dialing modes that are used by the switch.
OCM	inactivity-timeout	New option	7.6	Specifies the amount of time (in minutes) that Outbound Contact Manager waits for activity before disabling a logged-in user who is not interacting with the application.
CPD Server	audio-codecs	New option	7.6	Defines the codec(s) to use for HMP.
Release 7.5				
OCS	agent-assignment	New option	7.5	Determines agent reassignment to campaigns.
OCS	agent-assignment-priority	New option	7.5	Defines the priority of the Campaign Group when determining agent reassignment.
OCS	agent-assignment-min-num	New option	7.5	Defines the minimum number of agents in the Campaign Group when determining agent reassignment.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	agent-assignment-max-num	New option	7.5	Defines the maximum number of agents in the Campaign Group when determining agent reassignment.
OCS	am-detection-map	New option	7.5	Specifies the name of the Business Attribute value configuration object used for CPD based on record type.
OCS	call_wait_connected_timeout	Changed value	7.5	Maximum value is increased to 7200 seconds.
OCS	dialer-ttl	New option	7.5	Specifies Time To Live (in minutes) for the dialing request.
OCS	dialer-num-attempts	New option	7.5	Specifies the number of attempts for the dialing request.
OCS	direct-personal-callback	New option	7.5	Controls the way how records of type “personal callback” are processed.
OCS	inbound-agent-assignment-priority	New option	7.5	Defines the priority of inbound call activities. It is used when determining agent reassignment.
OCS	inbound-agent-assignment-min-num	New option	7.5	Defines the minimum amount of agents to perform inbound call activities.
OCS	inbound_agent_outlier_limit	New option	7.5	Specifies the minimum amount of inbound call time before an agent's status changes to Not Available.
OCS	interaction-media-type	New option	7.5	Defines the media type of the interaction submitted to Interaction Server.
OCS	ivr-profile-name	New option	7.5	Specifies the GVP voice application that will handle outbound calls.
OCS	outbound_agent_outlier_limit	New option	7.5	Specifies the minimum amount of outbound call time before an agent's status changes to Not Available.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	pa-dial-expire	New option	7.5	Specifies the timeout (in minutes) that the predictive algorithm uses to clean up calls that are in a Dialed state.
OCS	pa-handle-expire	New option	7.5	Specifies the timeout (in minutes) that the predictive algorithm uses to clean up calls that have reached an agent's desktop.
OCS	pa-handle-time-consider	New option	7.5	Specifies the maximum call duration for all call types when calculating the average call duration.
CPD Server	sip-proxy	New option	7.5	Defines the SIP Proxy host name or IP address.
OCM	AutoReconnect	New option	7.5	Determines if OCM performs an automatic reconnect procedure to OCS, Configuration Server, and DB Server.
OCS	internal_release_action	Deleted option	7.5	
OCS	engaged_release_action	Deleted option	7.5	
OCS	internal_answer_action	Deleted option	7.5	
OCS	desktop_version	Deleted option	7.5	
OCS	extended_record_cancel	Deleted option	7.5	
OCS	login_ignore_queue	Deleted option	7.5	
OCS	login_action	Deleted option	7.5	
OCS	ocs_group	Deleted option	7.5	

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	stale_clean_ interval	Deleted option	7.5	
OCS	main_timer_interval	Deleted option	7.5	
OCS	hide_private_data	Deleted option	7.5	
OCS	inbound_answer_ action	Deleted option	7.5	
OCS	inbound_release_ action	Deleted option	7.5	
Release 7.2				
OCS	agent_logout_ preview_call_result	New option	7.2	Enables OCS to change the call result for Preview, Personal CallBack, or Campaign CallBack records that are on an agent's desktop after receiving an EventAgentLogout message from Stat Server.
OCS	conversion	New option	7.2	Marks the field which indicates that the answered call was a successful transaction. Only used with ICON/GIM applications.
OCS	icon_attribute	New option	7.2	Defines how the field's value will be stored by ICON.
OCS	right_person	New option	7.2	Marks the field which indicates that the answered call was with the proper contact. Only used with ICON/GIM applications.
OCS	small_group_size	New option	7.2	Works for the Overdial Rate optimization parameter only. If the current number of agents is less than or equal to this option's value, OCS uses a small-group predictive algorithm.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	transfer_to_unknown_dn	New option	7.2	Specifies OCS's behavior when an outbound call is transferred to an unknown DN.
OCS	treatment_sched_threshold	New option	7.2	Determines the maximum time difference (in minutes) between the current time and the scheduled time for when a chain remains in OCS memory.
CPD Server	keep-channels-open	New option	7.2	Determines how CPD Server uses Dialogic channels.
CPD Server	use-fax2-as-am	New option	7.2	Controls the way the Fax2 tone is detected by enabling CPD Server to detect an Answering Machine by using the Fax2 tone.
Release 7.0				
OCS	campaign_name_field	New option	7.0	Defines the name of the field in the Calling List table that holds the campaign name.
OCS	check_dnc_list	New option	7.0	Set at the campaign level, this OCS option enables or disables a pre-dial check of all records belonging to a *particular* campaign against the Do Not Call list.
OCS	check_dnc_callback	New option	7.0	Enables or disables the dialing of three callback record typeswhen the phone number or customer ID in those records is also in the Do Not Call list.
OCS	hide_private_data	New option	7.0	Application-level option that allows OCS to show or hide attached data in the log output.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
OCS	public_network_access_code	Option extended to calling-list level and campaign level	7.0	Previously this option was only configured at the switch level or application level. Set at the calling list level, this option overrides the same option on either the campaign level or the switch level.
OCS	num-of-licenses	New option	7.0	OCS uses these two options for license control.
OCS	license-file	New option	7.0	
OCS	call_predictive_record_on_desktop_timeout	Obsolete option	7.0	This campaign-level option is obsolete for OCS 7.0.
OCS	call_wait_engage_agent_timeout	Obsolete option	7.0	This campaign-level option is obsolete for OCS 7.0.
OCS	channel_num	Option removed as a CPD Server-level option for OCS 7.0	7.0	This option is removed as a CPD Server-level option for OCS 7.0, but it remains a switch-level option for OCS.
CPD Server	destination-busy-timeout	New option	7.0	Prevents CPD Server from waiting indefinitely for the results of call progress detection on a busy signal. This new option specifies the length of time (in milliseconds) that CPD Server will wait for confirmation of the call result from T-Server (EventDestinationBusy) after a Busy call result from the Dialogic board. When the timeout expires, CPD Server accepts the busy call result as correct.
CPD Server	license-file	New option	7.0	Specifies the license address.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
CPD Server	num-occ-port-licenses	New option	7.0	Specifies the number of licenses that CPD checks out initially.
CPD Server	number-userdata-pairs-to-print	Option removed	7.0	Specified the number of pairs in UserData to print.
CPD Server	out-of-service-attempts	New option	7.0	CPD Server immediately marks a Dialogic port out-of-service if the server receives a failure message after a predefined number of attempts to connect to that port. This option sets the number of attempts. See also out-of-service-timeout option.
CPD Server	out-of-service-timeout	New option	7.0	Determines how long to wait (in minutes) before using the out-of-service channel again.
CPD Server	use-gc-makecall-blk	Option removed	7.0	This option was specifically for ISDN support on DM3 boards. Currently CPD Server supports only Melcas protocol on DM3 boards, so this option is obsolete.
CPD Server	tsrelease	Option removed	7.0	Previously, the value of this option indicated whether to send a release request to T-Server (tsrelease = yes) or not to send a release request to T-Server (tsrelease = no). CPD Server 7.x queries the DN to find out if any calls remain active.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
Release 6.5.2				
OCS	call_timeguard_ timeout	New option	6.5.2	This option sets a timeout for call progress detection (CPD). A call is transferred to a queue when the timeout expires, regardless of the call result or the completion of CPD. This option only applies when OCS uses CPD Server. Not applicable when OCS uses PBX equipment for CPD. Option set for the OCS Application object or at the Campaign object level.
OCS	customer_id	New option	6.5.2	Prior to 6.5.2, only the phone field was used as the identifier in the Do Not Call (DNC) List. Since 6.5.2, a user-defined field, as specified by the value of the customer_id option in the OCS Application object, can also serve as an identifier for DNC requests.
OCS	extended_record_ cancel	New option	6.5.2	From a third-party application, agents who are not participating in a particular Outbound campaign may cancel a record by phone number in a campaign. Setting extended_record_cancel option to yes enables it for a campaign or for the OCS Application object(s) in the configuration database.
OCS	log_call_stats	New option	6.5.2	This option creates a separate subsystem for Audit Logging to capture additional statistics on telephony events.
OCS	remote_release_ action	New option	6.5.2	Provides choices for ways in which OCS can handle calls with the result of RemoteRelease.

Table 49: Configuration Option Changes (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version	Details (optional)
CPD Server	max-number-ports-to-record	New option	6.5.2	CPD Server is able to create two voice files for outbound calls that it dials: File 1 contains the line recording for the CPD stage. File 2 records the conversation between an agent and the called party if the call result is answer (ASM mode only). The max-number-ports-to-record option specifies the maximum number of agent ports on which to record the voice files at the same time. See these options: cpd-file-name-prefix and conversation-file-name-prefix.
CPD Server	cpd-file-name-prefix	New option	6.5.2	The value of this option is a prefix that identifies voice File 1 (Call Result). The default is cpd_.
CPD Server	conversation-file-name-prefix	New option	6.5.2	The value of this option is a prefix that identifies voice File 2 (Conversation). The default is conv_.
CPD Server	forth-tone	New options	6.5.2	A beep signal alerts an agent immediately before a customer is connected. This optional beep signal is turned on or off by the forth-tone option.
CPD Server	line-type	Value changed	6.5.2	A new value dm3 for the line-type option replaced the previous value dm3-isdn.
CPD Server	tsclear	New option	6.5.2	This option controls the way a call is released. If tsclear = yes, RequestClearCall is issued to release an active call.

From 6.5.2 release and higher, users can define a dialing filter that exceeds the 255-character limit by dividing the long string into several shorter strings. Configuration options with the same name and sequential numbers added to

the ends of the option names enable this feature. Genesys Administrator, OCM, and OCS build a dialing filter by concatenating the values of these options. For more information and examples of these configuration options, see the "Defining a Dialing Filter that Exceeds 255 Characters" section in Chapter 8 of the *Outbound Contact 8.1 Deployment Guide*.

Changes in the Primary Key

In the 7.0 release and higher, the primary key of the Calling List database table consists of the fields `chain_id` and `chain_n`. The primary key in 6.x consisted of the fields `phone` and `phone_type`.

Changes in Reserved User Data Keys

Table 50 on page 377 lists the changes that occurred to data keys in Outbound Contact in releases 7.5 to 8.x. No changes were made to data keys in release 7.6. For more detailed information on User Data keys, see the *Outbound Contact 8.1 Deployment Guide.*

Table 50: Data Key Changes

Reserved User Data Key Name	Type of Change	Change Occurred in Version #	Details
GSW_ASSURED_HANDLE	New key	8.1	Handle of a record which is dialed with guaranteed connection to an agent.
GSW_CALL_RESULT_ FEEDBACK	New key	8.1	The presence of this key indicates that the given outbound call is selected as a test call for Answering Machine Detection (AMD) false positives and AMD false negatives.
GSW_CALL_TYPE	New key	8.0	Type of call leg, REGULAR or ENGAGING.
GSW_CONNECT_TIME	New key	8.0	Timestamp for call connection provided by SIP Server.
GSW_MEDIA_SRV_ID	New key	8.0	Identifier of the Media Server, used in an Outbound-VoIP environment.

Table 50: Data Key Changes (Continued)

Reserved User Data Key Name	Type of Change	Change Occurred in Version #	Details
GSW_QUEUE_DBID	New key	8.0	DBID of the Voice Transfer Destination DN, used in an Outbound-VoIP environment.
GSW_QUEUE_NAME	New key	8.0	Name of the Voice Transfer Destination DN, used in an Outbound-VoIP environment.
GSW_RECORD_URI	New key	8.0	URI for the record.
GSW_TRUNK_GROUP_DN_DBID	New key	8.0	DBID of the Trunk Group DN, used in an Outbound-VoIP environment.
GSW_TENANT_NAME	New key	8.0	Name of the Tenant for which the request is issued
GSW_CAMPAIGN_GROUP_NAME	New key	7.5	Name of the campaign group for which the request is issued.
GSW_CAMPAIGN_GROUP_DESCRIPTION	New key	7.5	Description of the campaign group for which the request is issued.
GSW_CONTACT_MEDIA_TYPE	New key	7.5	Media type corresponding to the Media Type Business Attribute Value.
GSW_AGENT_ID	New key	7.5	AgentID of the agent that is assigned for personal callback.
GSW_SWITCH_DBID	New key	7.5	DBID of the switch (avoids problems with Agent ID in personal callbacks).
InteractionType	New key	7.5	Type of the interaction that is created by OCS. The value of this key is always set to `Outbound`.
InteractionSubtype	New key	7.5	Subtype of the interaction, that is created by OCS. The value of this key is always set to `OutboundNew`.

Changes in Fields and Field Values

Table 51 lists the changes that occurred to fields and field values. For more detailed information about these fields, see the *Outbound Contact 8.1 Deployment Guide*.

Note: No changes were made to fields or field values in release 7.5, 7.6, 8.0, or 8.1.

Table 51: Field Changes

Field Name in 7.2	Type of Change	Change Occurred in Version #	Details
group_id	New field	7.2	Stores the DBID of the Agent/Place Group configuration object.
switch_id	New field	7.2	Stores the DBID of the Switch configuration object.
treatments	New field	7.2	Saves the information required to properly restore the Treatment application sequence.
media_ref	New field	7.1	Reserved for future use.
email_subject	New field	7.1	Reserved for future use.
email_template_id	New field	7.1	Reserved for future use.
contact_info	Field renamed	7.0	The `phone` field in 6.5.1 is renamed `contact_info` in 7.0 to accommodate various forms of contact, such as, e-mail address and FAX number as well as phone number. The `contact_info` field is part of the default format for the 7.0 Calling List table.

Table 51: Field Changes (Continued)

Field Name in 7.2	Type of Change	Change Occurred in Version #	Details
contact_info_type	Field renamed.	7.0	The `phone_type` field in 6.5.1 is renamed `contact_info_type` in 7.0 The `contact_info_type` field is part of the default format for the 7.0 Calling List table.
app_id	Fields reserved	7.0	Reserved for future use.

Changes in Calling Lists and Formats

The following changes also support the migration of Calling Lists:

- Genesys Administrator 8.x and Outbound Contact Manager (OCM) 7.x and higher are capable of importing and exporting calling lists that belong to different databases and even different DBMS.

  For OCM versions previous to 7.x, OCM did not perform import and export operations between two calling lists that belonged to different databases. OCM 7.x (and higher) removes this restriction. Both the source and the destination calling lists must belong to database servers with the same DBMS type. See *OCM Help* (release 7 or higher) for import and export procedures.
- OCS release 7.1 supports calling lists based on the 6.5.2 to 7.1 formats. OCM 7.1 also allows the importation of 6.5.2 calling lists into 7.1 format.
- OCS 7.2 requires that all Calling Lists have the mandatory fields the `switch_id`, `group_id`, and `treatments` in it's associated format, as well as in physical database table. For more information, see the chapter "Outbound Contact Migration Procedures".

SCXML Changes

- Starting in release 8.1, Genesys Outbound Contact uses an updated SCXML standard that contains a number of changes from the prior standard. These include changes to some of the syntax and to the ways of expressing certain operands. For a complete list of the syntax and operand changes, see the "Overview" section of the chapter titled "SCXML-Based Treatments" in the *Outbound Contact 8.1 Deployment Guide*.

The syntax changes are listed in the following bullet points:

- The syntax for Event Data has changed from `_eventdata` to `_event.data`.
- To assign value to a variable, `X`, defined in the data section, use the syntax `_data.X` in location expressions such as the following:
  - Previous Syntax: `<assign location="X" expr = "1" />`
  - New Syntax: `<assign location="_data.X" expr = "1" />`
- • Mnemonic operands such as the following must be expressed differently, as shown in the following examples:

Table 52: Changes to SCXML Operands

Operation	Previous Syntax	New Syntax
<	lt	<
>	gt	>
<=	le	<=
>=	ge	>=
&&	and	&&
||	or	||
!=	ne	!=

Changes in Licensing

Release 8.x

With the exception of Push Preview and Power GVP, all dialing modes require Outbound Contact licenses. The license requirements depend on your environment.

- If you are migrating from 7.x to 8.x you need an 8.0 license file.
- If you are upgrading from 8.0 to 8.1, continue to use your 8.0 license file.
- If you are running Outbound Contact in a mixed environment (in which some Outbound Contact components are release 8.0, and some others are release 7.5 or 7.6), both 7.*x* and 8.0 licenses must be present on License Server.

Note: If you are running Outbound Contact on Windows 2008 or HP-UX Itanium, you must upgrade your version of License Manager. For details, see the *Genesys Licensing Guide*.

Release 7.6

There were no licensing changes in release 7.6.

Release 7.5 and Dialing Modes

There is no change in Genesys licensing in release 7.5 for dialing modes that existed before the 7.5 release.

Dialing modes that are new in release 7.5 are licensed as follows:

- `Push Preview` and `Power GVP` dialing modes do not require Outbound Contact licenses. However, they do require their own respective application licenses.
- Each CPD port will still use one Genesys license. However, three types of Dialogic HMP licenses are required for each successful outbound call:
  - 1 license for Voice (`dxxx`)
  - 2 licenses for RTP_G_711
  - 2 licenses for IP_Call_Control (`ipt`)

  Contact your Dialogic representative for more information about HMP licensing.

Chapter

19 Outbound Contact Migration Procedures

This chapter presents the procedures for migrating to Outbound Contact.

The following sections are included in this chapter:

This section presents OCS-specific migration procedures. The other Outbound Contact components in this migration path follow the usual upgrade procedures.

Migration from 8.0 to 8.1

There are two ways to migrate to Outbound Contact 8.1.

- Upgrade existing components to the 8.1 release.
- Create a new solution using Genesys Administrator. For instructions, see the “Deploying Your Environment: Overview” and the subsequent topics in the *Framework Genesys Administrator Help*.

  Alternatively, you can use the Outbound Contact Configuration Wizard for deployment on all platforms except HPUX Itanium. To deploy using the

Wizard, see the procedure described in "Migration from 7.2 to 7.5" on page 390 for Outbound Contact Server, and, if necessary, CPD Server and CPD Server Proxy.

Migration Notes 8.1

- Release 8.1 Outbound Contact components are backward compatible with the 8.0, 7.6, and 7.5 releases of those components.
- New options were introduced in 8.1. For more information, see "Changes in Configuration Options" on page 356.
- A new SCXML standard was adopted for use in OCS 8.1. This change requires you to migrate the SCXML treatment scripts that you created in earlier releases of OCS.

Note: In release 8.0, Genesys Administrator replaced Configuration Manager and Outbound Contact Manager (OCM). Outbound Contact 8.1 continues to support Outbound Contact Manager 7.6. Note, however, that some functionality introduced in releases 8.0 and 8.1 is supported only with Genesys Administrator (for example, Outbound Schedules).

Migration Procedure

Once you have completed Framework migration and installed and configured Genesys Administrator (if necessary), follow the procedures below to upgrade Outbound Contact to 8.1.

Server Application Upgrade Procedure

This section provides instructions on how to upgrade to the 8.1 release of OCS using Genesys Administrator.

Notes:
- If you are running primary/backup servers, you can upgrade the pair as a non-stop operation. This includes upgrading the backup server, switching over from the primary to the backup server, and finally upgrading the primary server.
- You can also use Configuration Manager to perform the upgrade.
- When upgrading an existing component, you should not create a new `Application` object. Instead, use the existing `Application` object (keeping the original name) and update it by adding the new options available for use with your newly installed executable, removing obsolete options, and, if necessary, adjusting the values for existing options.

1. Install the 8.1 release of Outbound Contact Server (OCS) to a different directory on the same computer where the current component is installed.

   If you are using the optional CPD Server and CPD Server Proxy components, install those as well, using the same procedure.

   Note: For installation instructions, see the *Outbound Contact 8.1 Deployment Guide.*

2. In Genesys Administrator, under `Provisioning > Environment > Applications`, double-click the `Application` object.
3. From the `Options` tab, export the current configuration options to a configuration file.

   Note: Do not modify this text file. Preserve it as it is for comparison, as described in the next step, or to use for rollback purposes (in case the migration fails). For rollback instructions, see "Server Application Rollback Instructions" on page 388.

4. Open the file in a text editor and compare the list of options in Table 49, "Configuration Option Changes," on page 357 with those in the text file to see if any option is obsolete or replaced in the new release.
5. Based on the comparison, add the new options to the `Options` tab of the appropriate `Application` object. Also, remove obsolete options, and, if necessary, adjust the values for existing options.
6. On the `Configurations` tab of the server application, in the `Connections` section, verify that the proper connections are still in place for the server. See the *Outbound Contact 8.1 Deployment Guide* for information on connections.
7. If necessary, change the settings in the tabs/sections of this object.
8. Click `OK` to save the changes and close the dialog box.

Server Application Rollback Instructions

If you experience problems upgrading to the 8.1 version, you can return to your existing previous configuration by doing the following:

1. In Genesys Administrator, under `Provisioning > Environment > Applications`, double-click the server `Application` object.

   Note: You can also use Configuration Manager to perform the rollback.

2. On the `Options` tab, click `Import` and locate the configuration file you exported in Step 3 on page 385.

   This procedure overwrites the options on this tab with those in the configuration file.

3. If you changed settings on other tabs, return them to their previous settings.

Click `OK` to save the changes and close the dialog box.

Migration from Outbound Contact 7.5 or 7.6 to 8.0

There are two ways to migrate to Outbound Contact 8.0.

- Upgrade existing components to the 8.0 release.
- Create a new solution using the procedure described in "Migration from 7.2 to 7.5" on page 390 for Outbound Contact Server, CPD Server, and CPD Server Proxy.

Migration Notes 8.0

- Release 8.0 Outbound Contact components are backward compatible with the 7.6 and 7.5 releases of those components.
- New data keys were introduced in 8.0. For more information, see "Changes in Reserved User Data Keys" on page 377.
- A new dialing mode, Progressive GVP, was introduced in 8.0. In addition, some of the existing dialing modes can now be used in a VoIP environment. For more information, see the *Outbound Contact 8.0 Deployment Guide.*
- New options were introduced in 8.0. For more information, see "Changes in Configuration Options" on page 356.
- Extensions to the desktop protocol were introduced in 8.0 to prevent the canceling of records on the desktop. For more information, see "`cancel-on-desktop`" on page 364.

Note: In release 8.0, Genesys Administrator replaces Configuration Manager and Outbound Contact Manager (OCM). Genesys Administrator provides the capability to provision, monitor, and deploy Outbound Contact 8.0 and other Genesys solutions. It also includes the ability to manage all related Campaigns activities. For information on Genesys Administrator, see the *Framework 8.0 Genesys Administrator Deployment Guide.*

Migration Procedure

Once you have completed the Framework migration and installed and configured Genesys Administrator, follow the procedures below to upgrade Outbound Contact to 8.0.

Server Application Upgrade Procedure

This section provides instructions on how to upgrade to the 8.0 release of OCS, CPD Server, and CPD Server Proxy using Genesys Administrator.

Notes:
- If you are running primary/backup servers, you can upgrade the pair as a non-stop operation. This includes upgrading the backup server, switching over from the primary to the backup server, and finally upgrading the primary server.
- You can also use Configuration Manager to perform the upgrade.
- When upgrading an existing component, you should not create a new `Application` object. Instead, use the existing `Application` object (keeping the original name) and update it by adding the new options available for use with your newly installed executable, removing obsolete options, and, if necessary, adjusting the values for existing options.

1. Install the 8.0 release of Outbound Contact Server (OCS) to a different directory on the same computer where the current component is installed.

   If you are using the optional CPD Server and CPD Server Proxy components, install those as well, using the same procedure.

   Note: For installation instructions, see the *Outbound Contact 8.0 Deployment Guide.*

2. In Genesys Administrator, under `Provisioning > Environment > Applications`, double-click the `Application` object.
3. From the `Options` tab, export the current configuration options to a configuration file.

   Note: Do not modify this text file. Preserve it as it is for comparison, as described in the next step, or to use for rollback purposes (in case the migration fails). For rollback instructions, see “Server Application Rollback Instructions” on page 388.

4. Open the file in a text editor and compare the list of options in Table 49, “Configuration Option Changes,” on page 357 with those in the text file to see if any option is obsolete or replaced in the new release.
5. Based on the comparison, add the new options to the `Options` tab of the appropriate `Application` object. Also, remove obsolete options, and, if necessary, adjust the values for existing options.
6. On the `Configurations` tab of the server application, in the `Connections` section, verify that the proper connections are still in place for the server. See the *Outbound Contact 8.0 Deployment Guide* for information on connections.

7. If necessary, change the settings in the tabs/sections of this object.
8. Click OK to save the changes and close the dialog box.

Server Application Rollback Instructions

If you experience problems upgrading to the 8.0 version, you can return to your existing previous configuration by doing the following:

1. In Genesys Administrator, under Provisioning > Environment > Applications, double-click the server Application object.

   Note: You can also use Configuration Manager to perform the rollback.

2. On the Options tab, click Import and locate the configuration file you exported in Step 3 on page 387.

   This procedure overwrites the options on this tab with those in the configuration file.
3. If you changed settings on other tabs, return them to their previous settings.
4. Click OK to save the changes and close the dialog box.

Migration from 7.5 to 7.6

There are two ways to migrate to Outbound Contact 7.6.

- Upgrade existing components to the latest release.
- Create a new solution, using a procedure described in “Migration from 7.2 to 7.5” on page 390.

Migration Notes from 7.5 to 7.6

Be aware of the following:

- Release 7.6 Outbound Contact components are backward compatible with the 7.5 components.
- No new data keys were introduced in 7.6.

Migration Procedure

Once you have completed the Framework migration, follow the procedures below to upgrade Outbound Contact to 7.6.

Server Application Upgrade Procedure

This section provides instructions on how to upgrade to release 7.6 of OCS, CPD Server, and CPD Server Proxy.

Notes:
- If you are running primary/backup servers, you can upgrade the pair as a non-stop operation. This includes upgrading the backup server, switching over from the primary to the backup server, and finally upgrading the primary server.
- When upgrading an existing component, you should not create a new `Application` object. Instead, use the existing `Application` object (keeping the original name) and update it by adding the new options available for use with your newly installed executable, removing obsolete options, and, if necessary, adjusting the values for existing options.

1. Install the 7.6 release of Outbound Contact Server (OCS) and Outbound Contact Manager (OCM) to different directories on the same computer where the current components are installed.

   If you are using the optional CPD Server and CPD Server Proxy components, install those as well, using the same procedure.

   Note: For installation instructions, see the *Outbound Contact 7.6 Deployment Guide.*

2. In Configuration Manager, open the `Properties` dialog box for the `Application` object.

   Note: To view the `Annex` tab in the `Properties` dialog box, select `Options` from the `View` menu. On the `General` tab of the `Options` dialog box, select the `Show Annex tab in object properties` check box. Click `OK` to close the dialog box.

3. From the `Options` tab, export the current configuration options to a configuration file.

   Note: Do not modify this text file. Preserve it as it is for comparison, as described in the next step, or to use for rollback purposes (in case the migration fails). For rollback instructions, see “Server Application Rollback Instructions” on page 390.

4. Open the file in a text editor and compare the list of options in Table 49, “Configuration Option Changes,” on page 357 with those in the text file to see if any option is obsolete or replaced in the new release.
5. Based on the comparison, add the new options to the `Options` tab of the appropriate `Application` object. Also, remove obsolete options, and, if necessary, adjust the values for existing options.
6. Verify on the `Connections` tab that the proper connections are still in place for the server. See the *Outbound Contact 7.6 Deployment Guide* for information on connections.

7. If necessary, change the settings in the remaining tabs of the Properties dialog box.
8. Click `OK` to save the changes and close the dialog box.

Server Application Rollback Instructions

If you experience problems upgrading to the 7.6 version, you can return to your existing previous configuration by doing the following:

1. In Configuration Manager, open the `Properties` dialog box for the `Application` object.
2. On the `Options` tab, click the `Import from Configurations File` icon and locate the configuration file you exported in Step 3 on page 389.

   This procedure overwrites the options on this tab with those in the configuration file.
3. If you changed settings on other tabs, return them to their previous settings.
4. Click `OK` to save the changes and close the dialog box.

Outbound Contact Manager Upgrade Procedures

1. Install and configure the 7.6 version of OCM.

   Note: For more information see the *Outbound Contact 7.6 Deployment Guide*.

2. Verify that a connection to Outbound Contact Server is configured on the `Connections` tab of the OCM Application object in Configuration Manager.

Migration from 7.2 to 7.5

Preliminary Procedures

You must be migrating from release 7.2 before performing these steps. Complete these preliminary procedures before starting your migration to Outbound Contact 7.5.

1. If you are using Dialogic's Host Media Processing (HMP) software, you should obtain the necessary license file from Dialogic.

   Genesys licensing is addressed in these documents:
   - *Genesys Licensing Guide*
   - Chapter 2, "Licensing Migration" in this guide.
2. Migrate Framework from 7.2 to 7.5.

The migration of the Outbound `CampaignGroupInfo` object to the `CampaignGroup` object is performed by the Configuration Conversion Wizard (CCW). Framework migration is explained in detail in the Framework section in this guide.

Note: Starting with release 7.5, the backup OCS application maintains a direct connection to the primary OCS application. Previously, the backup OCS application monitored UserEvents that were distributed by the primary OCS application using the T-Server application. As a result, you cannot migrate your backup OCS application, perform a switchover, and then migrate your primary OCS application. You need to stop your Outbound Contact solution before migrating to release 7.5.

3. Upgrade other Genesys components that Outbound Contact will use.
4. Review the section "Interoperability Among Outbound Contact Components" on page 337 in this guide.

Migration Procedures

Outbound Contact release 7.5 is not backward compatible with Genesys release 7.2 or earlier. Genesys recommends that you install Outbound Contact 7.5 components in a new directory, separate from the Outbound Contact installation directory.

Note: Genesys recommends that you use the Outbound Solution Wizard (also known as the Outbound Contact Configuration Wizard) to perform this step and to complete the upgrade procedures for OCS, OCM, and CPD Server (optional).

The Wizard creates a standard configuration of the components of Outbound Contact 7.5. The Wizard creates all mandatory options with their default values. You can easily redefine these default values based on the specific needs of your contact center. The Wizard also provides a method for setting up the Dialogic board channels (ports) for CPD Server only when you create a new CPD Server application.

For instructions on using the Wizard, refer to the *Outbound Contact 7.5 Deployment Guide*.

Follow these procedures for migrating to Outbound Contact 7.5:

1. Import the `Solution` template for Outbound Contact 7.5.
2. Import the `Application` template for Outbound Contact Server 7.5.
3. Create and configure the `Application` object for Outbound Contact Server 7.5.

4. Install the 7.5 release of Outbound Contact Server (OCS) and Outbound Contact Manager (OCM) to different directories on the same computer where the current components are installed.

   If you are using the optional CPD Server and CPD Server Proxy components, install those as well, using the same procedure.

   Notes: For assistance with installation and also manual configurations, if necessary, refer to the *Outbound Contact 7.5 Deployment Guide.*

   If objects and components have been customized, contact Professional Services for help.

   Rollback Procedures: If the upgrade of Outbound Contact Server 7.5 fails, simply uninstall OCS 7.5.

5. Import the `Application` template for Outbound Contact Manager 7.5.

6. Create and configure the `Application` Object for Outbound Contact Manager 7.5.

   Note: For assistance with manual configurations, if needed, refer to the *Outbound Contact 7.5 Deployment Guide*.

   Rollback Procedures: If the upgrade of OCM 7.5 fails, simply uninstall OCM 7.5.

Steps 6 to 9 are optional if you are using switch-based call progress detection.

7. Import the `Application` template for CPD Server 7.5.

8. Create and configure the `Application` object for CPD Server 7.5.

   Note: For assistance with manual configurations, if needed, refer to the *Outbound Contact 7.5 Deployment Guide*.

   Rollback Procedures: If the upgrade of CPD Server 7.5 fails, simply uninstall CPD Server 7.5.

9. Import the `Application` template for CPD Server Proxy 7.5 if you choose to use this new 7.5 component.

10. Create and configure the `Application` object for CPD Server Proxy 7.5.

    Note: For assistance with manual configurations, if needed, refer to the *Outbound Contact 7.5 Deployment Guide.*

    Rollback Procedures: If the import and configuration of CPD Server Proxy 7.5 fails, simply uninstall CPD Server Proxy 7.5.

11. There are new data keys in Outbound Contact 7.5:
    - `GSW_CAMPAIGN_GROUP_NAME`
    - `GSW_CAMPAIGN_GROUP_DESCRIPTION`

- GSW_CONTACT_MEDIA_TYPE
- GSW_AGENT_ID
- GSW_SWITCH_DBID
- InteractionType
- InteractionSubtype

Refer to the *Outbound Contact 7.5 Reference Manual* for more information about these keys.

12. Fields in the calling list tables are updated as part of the CCW conversion procedure.

Note: OCM Help also explains how to import and export Calling List data. See the *OCM 7.5 Help* file for more information.

13. In Configuration Manager, you need to perform the following steps:
    - Configure the CampaignGroup object in the Campaign object.
    - Add a Stat Server application in the Connections tab of the CampaignGroup object.

Note: If you require ADDP for connections between OCS and the other servers, you must add those servers to the Connections tab of the OCS Application object and also configure ADDP and other optional connection parameters. See the *Outbound Contact 7.5 Deployment Guide* for more details.

14. Reporting templates have not changed since release 7.2. See the Reporting solution documentation for more information about migrating reporting templates for versions previous to release 7.2.

Note: In release 7.5, the following three outbound-specific statistics were added: CurrentAgentAssignment, CurrentNumberAgentsAssigned, and CurrentCampaignGroupDBID. For more information about these statistics, see the "Outbound-Specific Statistics for Stat Server" section in Chapter 5 of the *Outbound Contact 7.6 Deployment Guide*.

Migration from 7.1 to 7.2

You can migrate Outbound Contact directly from release 7.1 to release 7.2. The procedures for this specific migration path are discussed in this section.

Preliminary Procedures

Complete these preliminary procedures before starting your migration to Outbound Contact 7.2:

1. Install Licensing Manager.

You should have the license files for 7.2 components.

Licensing is addressed in these documents:

- *Genesys Licensing Guide*
- Chapter 2, "Licensing Migration" in this guide.

2. Migrate Framework from 7.1 to 7.2:

   Framework migration is explained in detail in the Framework section in this guide.

3. Upgrade other prerequisite Genesys components.

   Review the section "Interoperability Among Outbound Contact Components" on page 337 in this guide.

Migration Procedures

Follow these migration procedures for Outbound Contact (Steps 1-12):

1. Update contact center configuration (specific to Outbound Contact), as needed.
   a. Place Groups
   b. Agent Groups
   c. DNs

   For additional information about Place Groups, Agent Groups, and DNs as configuration objects, refer to the *Outbound Contact 7.2 Deployment Guide.*

2. Import the Solution template for Outbound Contact 7.2.

   Genesys recommends that you install Outbound Contact 7 components in a new directory, separate from Outbound Contact 7.1.

   Genesys also recommends that you use the Outbound Solution Wizard (also known as the Outbound Contact Configuration Wizard) to perform this step and to complete the upgrade procedures for these components: OCS, OCM, CPD Server (optional) and CPD Proxy Server (optional).

   The Wizard creates a standard configuration of the components of Outbound Contact 7.2. The Wizard creates all mandatory options with their default values. You can easily redefine these default values based on the specific needs of your contact center. The Wizard also provides a method for setting up the Dialogic board channels (ports) for CPD Server.

   For instructions on using the Wizard, refer to the *Outbound Contact 7.2 Deployment Guide*.

   To determine if the first component you plan to upgrade to version 7.2 is backward compatible with the components not yet upgraded, refer to the section "Interoperability Among Outbound Contact Components" on page 337 in this guide.

3. Import the Application template for Outbound Contact Server 7.2.

4. Create and configure the Application Object for Outbound Contact Server 7.2.

   For assistance with manual configurations, if necessary, refer to the *Outbound Contact 7.2 Deployment Guide*.

   Note: If objects and components have been customized, contact Professional Services for help.

   Rollback Procedures: If the upgrade of Outbound Contact Server 7.2 fails, simply uninstall OCS 7.2.

5. Import Application template for Outbound Contact Manager 7.2.
6. Create and configure the Application Object for Outbound Contact Manager 7.2.

   For assistance with manual configurations, if needed, refer to the *Outbound Contact 7.2 Deployment Guide*.

   Rollback Procedures: If the upgrade of OCM 7.2 fails, follow these steps:

   a. Uninstall OCM 7.2.
   b. Reinstall OCM 7.1.

7. Import Application template for CPD Server 7.2.
8. Create and configure the Application Object for CPD Server 7.2.

   For assistance with manual configurations, if needed, refer to the *Outbound Contact 7.2 Deployment Guide*.

   Rollback Procedures: If the upgrade of CPD Server 7.2 fails, simply uninstall CPD Server 7.2.

9. Import the Application template for CPD Proxy Server 7.2 if you choose to use this new 7.2 component.
10. Create and configure the Application Object for CPD Proxy Server 7.2.

    For assistance, refer to the *Outbound Contact 7.2 Deployment Guide*.

    Rollback Procedures: If the import and configuration of *CPD Proxy Server 7.2* fails, simply uninstall CPD Proxy Server.

11. There are two ways you can migrate data specific to Outbound Contact - manual and automatic. Each procedure is described as follows.

    Note: OCM Help also explains how to import and export Calling List data from 7.1 format to 7.2 format. For more information, see *OCM 7.2 Help*.

Manual Migration

The migration of calling list data manually Outbound Contact 7.1 to version 7.2 requires that all Calling Lists have the mandatory `switch_id`, `group_id`, and `treatments` fields in the associated format, as well as in the physical

database table. Calling lists that are associated with formats that do not contain these 3 fields (such as those from version 7.0 or earlier, or that contain the fields `phone` and `phone_type` instead of `contact_info` and `contact_info_type` respectively) must be migrated to Outbound Contact Solution 7.1. Only calling lists based on a 7.1 format can be migrated to Outbound Contact Solution 7.2.

To migrate the calling list data from Outbound Contact 7.1. to 7.2, complete the following steps:

1. Create a new `format` object (by making a copy of the existing format object).
2. In the new format, add shortcuts to the field objects: `switch_id`, `group_id`, and `treatments` form the `Environment\Fields` folder.

   Note: If these fields do not exist in the `Fields` folder, you will need to upgrade your configuration database. Refer to previous sections in this chapter for instructions about how to complete this process.

3. Create a new `table access point` object, then copy the properties from the existing `table access point` object, and then assign a new format to it.
4. Assign the new table access point to the `calling list` object.
5. Alter the database to add the new fields using the appropriate syntax:
   a. For MSSQL or Sybase databases, use the following SQL statement to add new fields to your calling list database tables:

      ```
      Alter Table <table_name> ADD group_id INT NULL, switch_id INT
      Null, treatments VARCHAR (255) Null
      ```

   b. For the Oracle database, use the following statement to add new fields to your calling list database tables:

      ```
      Alter Table <table_name> ADD (group_id INT NULL, switch_id INT
      Null, treatments VARCHAR2(255) Null)
      ```

   c. For DB2 and Informix databases, use the following statements to add new fields to your calling list database tables:

      ```
      Alter Table <table_name> ADD group_id INT
      Alter Table <table_name> ADD switch_id INT
      Alter Table <table_name> ADD treatments VARCHAR(255)
      ```

Automatic Migration

The migration of calling list data automatically from Outbound Contact 7.1 to version 7.2 requires the update of the configuration database by using the Conversion Configuration Wizard.

The migration process is as follows:

1. Stop all applications that access the Configuration Server and those that use the database to be migrated.
2. Stop Configuration Server.

3. Backup the Configuration Database.
4. Run the Conversion Configuration Wizard (CCW) and follow the Wizard prompts.
5. Restart Configuration Server.
6. Start Configuration Manager, then check to ensure that all of the formats associated with the calling lists have been updated.
7. Alter the database tables to add the new fields using the appropriate syntax for your installation. For more information, refer to "Manual Migration" on page 395.

Note: You can use CCW to migrate the configuration database from release 7.1 to release 7.2, 7.5, or 7.6. For more information about CCW, see the Framework migration chapters in this *Genesys Migration Guide.*

For more information about migrating reporting templates to Outbound Contact 7.2, see:

- *Reporting 7 CCPulse+ Help,* "Using the Import/Export Utility".
- *Reporting 7 Data Modeling Assistant Help*, "Importing and Exporting Templates".

Migration from 7.0 to 7.1

The migration procedures for the Outbound Contact 7.0.1 and 7.1 releases are the same as the Outbound Contact 7.0 release. If you are upgrading to Outbound Contact 7.0.1 or 7.1, follow the previous procedures that this guide describes for Outbound Contact 7.0.

Migration from 6.5.2 to 7.2

You can migrate Outbound Contact directly from release 6.5.2 to release 7.2. The procedures for this specific migration path are discussed in this section.

Preliminary Procedures

Complete these preliminary procedures before starting your migration to Outbound Contact 7.2:

1. Install Licensing Manager.

   You should have the license files for 7.2 components.

   Licensing is addressed in these documents:

   - *Genesys Licensing Guide*
   - "Licensing Migration" section in this guide.

2. Migrate Framework from 6.5 to 7.2.

   Framework migration is explained in detail in the Framework section in this guide.

3. Upgrade other prerequisite Genesys components.

4. Review the section "Interoperability Among Outbound Contact Components" on page 337 in this guide.

Migration Procedures

Follow these migration procedures for Outbound Contact (Steps 1-12):

1. Update contact center configuration (specific to Outbound Contact), as needed.
   - Place Groups
   - Agent Groups
   - DNs

   For additional information about Place Groups, Agent Groups, and DNs as configuration objects, refer to the *Outbound Contact 7.2 Deployment Guide.*

2. Import the Solution template for Outbound Contact 7.2.

   Genesys recommends that you install Outbound Contact 7 components in a new directory, separate from Outbound Contact 6.5.2.

   Genesys also recommends that you use the Outbound Solution Wizard (also known as the Outbound Contact Configuration Wizard) to perform this step and to complete the upgrade procedures for these components: OCS, OCM, CPD Server (optional) and CPD Proxy Server (optional).

   The Wizard creates a standard configuration of the components of Outbound Contact 7.2. The Wizard creates all mandatory options with their default values. You can easily redefine these default values based on the specific needs of your contact center. The Wizard also provides a method for setting up the Dialogic board channels (ports) for CPD Server.

   For instructions on using the Wizard, refer to the *Outbound Contact 7.2 Deployment Guide*.

   To determine if the first component you plan to upgrade to version 7.2 is backward compatible with the components not yet upgraded, refer to the section "Interoperability Among Outbound Contact Components" on page 337 in this guide.

3. Import the Application template for Outbound Contact Server 7.2.

4. Create and configure the Application Object for Outbound Contact Server 7.2.

For assistance with manual configurations, if necessary, refer to the *Outbound Contact 7.2 Deployment Guide.*

Note: If objects and components have been customized, contact Professional Services for help.

Rollback Procedures: If the upgrade of Outbound Contact Server 7.2 fails, simply uninstall OCS 7.2.

5. Import Application template for Outbound Contact Manager 7.2.
6. Create and configure the Application Object for Outbound Contact Manager 7.2.

   For assistance with manual configurations, if needed, refer to the *Outbound Contact 7.2 Deployment Guide*.

   Rollback Procedures: If the upgrade of OCM 7.2 fails, follow these steps:

   a. Uninstall OCM 7.2.
   b. Reinstall OCM 6.5.2.
7. Import Application template for CPD Server 7.2.
8. Create and configure the Application Object for CPD Server 7.2.

   For assistance with manual configurations, if needed, refer to the *Outbound Contact 7.2 Deployment Guide*.

   Rollback Procedures: If the upgrade of CPD Server 7.2 fails, simply uninstall CPD Server 6.5.2.
9. Import the Application template for CPD Proxy Server 7.2 if you choose to use this new 7.2 component.
10. Create and configure the Application Object for CPD Proxy Server 7.2.

    For assistance, refer to the *Outbound Contact 7.2 Deployment Guide*.

    Rollback Procedures: If the import and configuration of *CPD Proxy Server 7.2* fails, simply uninstall CPD Proxy Server.
11. Migrate data specific to Outbound Contact.

    OCM Help explains how to import and export Calling List data from 6.5 format to the 7.2 format. See *OCM 7.2 Help*.

    Note: Outbound Contact 7.2 is backward compatible with the 6.x format of the Calling Lists.
12. Migrate Reporting templates for Outbound Contact 7.2.
    For information about importing Reporting templates for Outbound Contact 7.2, see:
    - *Reporting 7 CCPulse+ Help,* "Using the Import/Export Utility"
    - *Reporting 7 Data Modeling Assistant Help*, "Importing and Exporting Templates"

Migration from 6.5.100.27-6.5.100.30 to 7.0

Follow these migration procedures (Steps 1-12):

1. Update contact center configuration (specific to Outbound Contact), as needed.
   - Place Groups
   - Agent Groups
   - DNs
   - For additional information about Place Groups, Agent Groups, and DNs as configuration objects, refer to the *Outbound Contact 7.0 Deployment Guide,* Chapter 5, "Outbound-Specific Configurations of Framework Objects."
2. Import the Solution template for Outbound Contact 7.0.

   Genesys recommends that you install Outbound Contact 7 components in a new directory, separate from Outbound Contact 6.5.2.

   Genesys also recommends that you use the Outbound Solution Wizard (also known as the Outbound Contact Configuration Wizard) to perform this step and to complete the upgrade procedures for these components: OCS, OCM, CPD Server (optional) and CPD Proxy Server (optional).

   The Wizard creates a standard configuration of the components of Outbound Contact 7.0. The Wizard creates all mandatory options with their default values. You can easily redefine these default values based on the specific needs of your contact center. The Wizard also provides a method for setting up the Dialogic board channels (ports) for CPD Server.

   For instructions on using the Wizard, refer to the *Outbound Contact 7.0 Deployment Guide*, Chapter 4, "Outbound Solution Wizard."

   To determine if the first component you plan to upgrade to version 7.0 is backward compatible with the components not yet upgraded, refer to the section "Interoperability Among Outbound Contact Components" on page 337 in this guide.
3. Import the Application template for Outbound Contact Server 7.0.
4. Create and configure the Application Object for Outbound Contact Server 7.0.

   For assistance with manual configurations, if necessary, refer to the *Outbound Contact 7.0 Deployment Guide*, Chapter 3, "Configuring OCS."

   Note: If objects and components have been customized, contact Professional Services for help.

   Rollback Procedures: If the upgrade of Outbound Contact Server 7.0 fails, simply uninstall OCS 7.0.
5. Import Application template for Outbound Contact Manager 7.0.

6. Create and configure the Application Object for Outbound Contact Manager 7.0.

   For assistance with manual configurations, if needed, refer to the *Outbound Contact 7.0 Deployment Guide*, Chapter 3, "Configuring OCM."

   Rollback Procedures: If the upgrade of OCM 7.0 fails, follow these steps:

   a. Uninstall OCM 7.0.
   b. Reinstall OCM 6.5.x.

7. Import Application template for CPD Server 7.0.
8. Create and configure the Application Object for CPD Server 7.0.

   For assistance with manual configurations, if needed, refer to the *Outbound Contact 7.0 Deployment Guide*, Chapter 3, "Configuring CPD Server."

   Rollback Procedures: If the upgrade of CPD Server 7.0 fails, simply uninstall CPD Server 7.0.

9. Import the Application template for CPD Proxy Server 7.0 if you choose to use this new 7.0 component.
10. Create and configure the Application Object for CPD Proxy Server 7.0.

    For assistance, refer to the *Outbound Contact 7.0 Deployment Guide*, Chapter 3, "Configuring Call Progress Detection Proxy."

    Rollback Procedures: If the import and configuration of *CPD Proxy Server 7.0* fails, simply uninstall CPD Proxy Server.

11. Migrate data specific to Outbound Contact, such as:
    - Calling List Data
    - Do Not Call Data

    OCM Help explains how to import and export Calling List data from 6.5 format to 7.0 format. See *OCM 7.0 Help*.

    The migration of Do Not Call data from Outbound Contact 6.5.1 to 7.0 entails:
    - Creating a new Table Access object in configuration.
    - Creating a new database table in the database.
    - Copying Do Not Call-related information from the old `gsw_request_log` table to the new `gsw_donotcall_list` table.

    To Migrate Do Not Call data from Outbound Contact 6.5.1 to 7.0, follow these step-by-step procedures:

    a. Create a new Table Access object of the type "Log table."

       Note: For instructions on creating a Table Access object, see the *Outbound 7.0 Deployment Guide*, Chapter 5, section "Table Access Object."

b. In the Properties dialog box for this object, name this Table Access object `gsw_donotcall_list`.

> **Note:** The exact name `gsw_donotcall_list` for the Table Access object allows OCS to distinguish this table. The table itself can have any name.

c. Assign a Database Access Point for the `gsw_donotcall_list` table.

Use any Database Access Point that is convenient; there are no limitations on the physical location of this table.

d. Run OCM to create the `gsw_donotcall_list` table.

Start OCM, select tenant, select OCS. OCM will automatically create the `gsw_donotcall_list` table in the database.

e. Once the new database table is created, use the SQL statement below to copy the Do Not Call-related information from the old `gsw_request_log` table into the new table.

Before completing this step, please note the following:

To execute the INSERT INTO statement (below), you need permissions to modify tables.

You must replace:

- `<new_table_name>` placeholder with the actual `gsw_donotcall_list` table name, as configured in the Table Access Object.
- `<old_table_name>` placeholder with the actual `gsw_request_log` table name.

The exact syntax may vary for the INSERT INTO SQL statement, depending on your DBMS type. Check your DBMS documentation or consult your DBA, if necessary.

The following example is for an MS SQL Server:

```
INSERT INTO <new_table_name> (phone, dnc_message, time_stamp,
tenanat_dbid)
SELECT phone, dnc_message, time_stamp, tenant_dbid FROM
<old_table_name>
WHERE request_type=15
```

Migrate Reporting templates for Outbound Contact 7.
For information about importing Reporting templates for Outbound Contact 7.0, see:

- *Reporting 7 CCPulse+ Help,* "Using the Import/Export Utility"
- *Reporting 7 Data Modeling Assistant Help*, "Importing and Exporting Templates"

Migration from 6.5.xxx-6.5.100.26 to 7.0

Note: If you are using Outbound Contact Server 6.5.100.26 or a previous version, you must upgrade OCS first, then upgrade the Framework components to 7.0.

Follow these migration procedures (Steps 1-12):

1. Update contact center configuration (specific to Outbound Contact), as needed.
   - Place Groups
   - Agent Groups
   - DNs
2. Import the Solution template for Outbound Contact 7.0.

   Genesys recommends that you install Outbound Contact 7 components in a new directory, separate from Outbound Contact 6.5.2.

   Genesys also recommends that you use the Outbound Solution Wizard (also known as the Outbound Contact Configuration Wizard) to perform this step and to complete the upgrade procedures for these components: OCS, OCM, CPD Server (optional) and CPD Proxy Server (optional).

   The Wizard creates a standard configuration of the components of Outbound Contact 7.0. The Wizard creates all mandatory options with their default values. You can easily redefine these default values based on the specific needs of your contact center. The Wizard also provides a method for setting up the Dialogic board channels (ports) for CPD Server.

   For instructions on using the Wizard, refer to the *Outbound Contact 7.0 Deployment Guide*.

   To determine if the first component you plan to upgrade to version 7.0 is backward compatible with the components not yet upgraded, refer to the section "Interoperability Among Outbound Contact Components" on page 337 in this guide.
3. Import the Application template for Outbound Contact Server 7.0.
4. Create and configure the Application Object for Outbound Contact Server 7.0.

   For assistance with manual configurations, if necessary, refer to the *Outbound Contact 7.0 Deployment Guide*, Chapter 3, "Configuring OCS."

   Note: If objects and components have been customized, contact Professional Services for help.

   Rollback Procedures: If the upgrade of Outbound Contact Server 7.0 fails, simply uninstall OCS 7.0.

5. Import Application template for Outbound Contact Manager 7.0.
6. Create and configure the Application Object for Outbound Contact Manager 7.0.

   For assistance with manual configurations, if needed, refer to the *Outbound Contact 7.0 Deployment Guide*, Chapter 3, "Configuring OCM."

   a. Uninstall OCM 7.0.
   b. Reinstall OCM 6.5.x.
7. Import Application template for CPD Server 7.0.
8. Create and configure the Application Object for CPD Server 7.0.

   For assistance with manual configurations, if needed, refer to the *Outbound Contact 7.0 Deployment Guide*, Chapter 3, "Configuring CPD Server."

   Rollback Procedures: If the upgrade of CPD Server 7.0 fails, simply uninstall CPD Server 7.0.
9. Import the Application template for CPD Proxy Server 7.0 if you choose to use this new 7.0 component.
10. Create and configure the Application Object for CPD Proxy Server 7.0.

    For assistance, refer to the *Outbound Contact 7.0 Deployment Guide*, Chapter 3, "Configuring CPD Proxy Server."

    Rollback Procedures: If the import and configuration of fails, simply uninstall CPD Proxy Server.
11. Migrate data specific to Outbound Contact, such as
    - Calling List Data
    - Do Not Call Data

    OCM Help explains how to import and export Calling List data from 6.5 format to 7.0 format. See *OCM 7.0 Help*.

    The migration of Do Not Call data from Outbound Contact 6.5.1 to 7.0 entails:
    - Creating a new Table Access object in configuration.
    - Creating a new database table in the database.
    - Copying Do Not Call-related information from the old `gsw_request_log` table to the new `gsw_donotcall_list` table.

    Step-by-step procedures for the migration of Do Not Call data follow.

    To migrate Do Not Call data from Outbound Contact 6.5.1 to 7.0:

    a. Create a new Table Access object of the type "Log table."

    > **Note:** For instructions on creating a Table Access object, see the *Outbound 6.5 Deployment Guide*, Chapter 5, section "Table Access Object."

b. In the Properties dialog box for this object, name this Table Access object gsw_donotcall_list.

> **Note:** The exact name gsw_donotcall_list for the Table Access object allows OCS to distinguish this table. The table itself can have any name.

c. Assign a Database Access Point for the gsw_donotcall_list table.

Use any Database Access Point that is convenient; there are no limitations on the physical location of this table.

d. Run OCM to create the gsw_donotcall_list table.

Start OCM, select tenant, select OCS. OCM will automatically create the gsw_donotcall_list table in the database.

e. Once the new database table is created, use the SQL statement below to copy the Do Not Call-related information from the old gsw_request_log table into the new table.

Before completing this step, please note the following:

To execute the INSERT INTO statement (below), you need permissions to modify tables.

You must replace:

- <new_table_name> placeholder with the actual gsw_donotcall_list table name, as configured in the Table Access Object.
- <old_table_name> placeholder with the actual gsw_request_log table name.

The exact syntax may vary for the INSERT INTO SQL statement, depending on your DBMS type. Check your DBMS documentation or consult your DBA, if necessary.

The following example is for an MS SQL Server:

```
INSERT INTO <new_table_name> (phone, dnc_message, time_stamp,
tenanat_dbid)
SELECT phone, dnc_message, time_stamp, tenant_dbid FROM
<old_table_name>
WHERE request_type=15
```

For information about importing Reporting templates for Outbound Contact 7.0, see:

- *Reporting 7 CCPulse+ Help,* "Using the Import/Export Utility"
- *Reporting 7 Data Modeling Assistant Help*, "Importing and Exporting Templates"

Migration from 5.1.5, 6.0, or 6.1

If you are using OCS 5.1.5, 6.0, or 6.1, follow this two-step migration path:

- See the *Genesys 6.5 Migration Guide* for instructions about upgrading to OCS 6.5.2 first.
- Migrate OCS 6.5.2 to 7.2. For more information, see “Migration from 6.5.2 to 7.2” on page 397.

Genesys

Part

5 T-Server Migration

This section describes migration from pre-8.1 releases to release 8.1 of T-Server and Network T-Server products. It discusses component changes, and Genesys software that supports and enables T-Server and Network T-Server functionality.

The information is divided into the following chapters:

- Chapter 20, "Introduction to T-Server Migration," on page 409 provides background information on T-Server migration.
- Chapter 21, "Changes in T-Server and HA Proxy Configuration Options," on page 415 offers a list of configuration options that may have changed since you last deployed T-Server.
- Chapter 22, "T-Server Migration Procedures," on page 545 provides the required steps to migrate T-Server. It also includes the steps you need to take for migration of HA Proxy components, if you use them in your enterprise.

Chapter

20 Introduction to T-Server Migration

This chapter provides background information on how to migrate and upgrade the T-Server and Network T-Server products. Basic information about T-Servers and T-Server options is available in your *T-Server Deployment Guide.*

This chapter discusses the following topics:

Note: References to T-Server in these chapters also apply to Network T-Servers, except where noted.

Preliminary Migration Procedures

Note: If you want to upgrade your operating system, you must do this before migrating your Genesys product.

The migration process includes these preliminary procedures for T-Servers:

1. Review Chapter 1, "Migration Roadmap," on page 41 of this guide.
2. Examine the order in which the Genesys software required for Framework 8.1 should be upgraded. See "Order of Migration for 8.1" on page 63.
3. Examine the component changes for T-Servers in Chapter 21, "Changes in T-Server and HA Proxy Configuration Options," on page 415.
4. You might also want to look at the option changes in that same chapter.

Note: These tables only discuss changes that directly affect the migration of this product. For a complete list of configuration options for T-Server, see the specific *T-Server Deployment Guide*. For a list of documentation relevant to the migration of this product, see "Reference Materials" below.

5. Review the licensing requirements for Framework 8.1. See Chapter 2, "Licensing Migration," on page 47 in this guide.
6. Check the interoperability of the components of Framework 8.1 during the upgrade procedures.

   See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.

Reference Materials

- *T-Server 8.1 Deployment Guide* (for a specific T-Server)
- *Framework 8.1 Deployment Guide*
- *Genesys Licensing Guide*
- *Genesys Interoperability Guide*

Migration Considerations

Migration paths depend on the version of the specific T-Server you are migrating. In all cases it is assumed you are migrating to the most recent version of your T-Server. (Thus, for example, a heading such as "Migration from 7.6" means "Migration from Release 7.6 of T-Server to the most recent release of T-Server.")

Multi-Site/Single-Site and Multi-Tenant Migration

T-Server migration requires planning system operation during the migration process:

Single-Site Migration

- In single-site migrations, you need to suspend work in your production environment during the T-Server migration process.

Multi-Site Migration

- In multi-site environments, while you are undergoing the migration process, you need to reroute work through another T-Server during upgrade in order to avoid suspending work.

Redundant T-Servers

Since T-Servers can operate in a high-availability (HA) configuration, providing you with redundant systems, you may be migrating multiple servers.

In the cases of both primary and backup T-Servers, the migration process is the same.

Hot Standby Redundancy Type

Starting with release 7.1, hot standby redundancy type is implemented in T-Servers for most types of switches. For some switches, you must compensate for the lack of link redundancy by using an additional Genesys component called HA Proxy.

See "HA Environment Migration" on page 550 in Chapter 22, "T-Server Migration Procedures," on page 545 and see Chapter 21, "Changes in T-Server and HA Proxy Configuration Options," on page 415.

Historical Changes to T-Server

The history of T-Server has seen a few larger-scale developments. The two most important are:

- Expiration of support for configuration files when deploying T-Server. Your new version of T-Server requires that you use Configuration Manager to configure it and store all settings in the Configuration Database, not in a configuration file.
- Introduction of some support for a high-availability deployment with all T-Servers. While `warm standby` mode is available for all T-Servers, `hot standby` mode in its many variations is not available for some T-Servers. You must refer to the *T-Server 8.1 Deployment Guide* for your specific T-Server for information on hot-standby support.

> **Note:** Network T-Servers use a load-sharing redundancy schema instead of warm or hot standby.

Most changes, however, involve small differences to your T-Server. Changes of this type are evident, for instance, in the addition of new options and alterations to valid option values.

These T-Server migration chapters highlight most of the changes to T-Server that will concern you during migration. However, refer to your specific *T-Server 8.1 Deployment Guide* as needed and carefully read all the instructions presented for your specific migration path before beginning the migration process.

Required Framework Components

T-Servers are part of the Framework Media Layer. Refer to Framework 8.1 documentation to learn about the role of T-Server in the Media Layer, and about the Media Layer's role within the overall scope of a Framework migration. Be sure to refer to earlier portions of this guide which provide an overall picture of the larger migration process for all your Genesys components and identify the specific point at which T-Servers are migrated.

Note: Be sure to upgrade or install components of the Framework Configuration Layer before you migrate your T-Servers.

Licensing Changes

Regardless of which version of T-Server you have prior to migrating, be sure to check on the licensing requirements forthe new version. In all cases, refer to the *Genesys Licensing Guide* available on the Technical Support Website for more information.

Note: In the Genesys 8 Framework, high-availability configurations do not require duplicate licenses. The HA license for your T-Server applies to both the primary and backup T-Servers.

Earlier Configuration Environment

T-Server 8.1 is fully backward compatible with the pre-8.1 release of T-Server clients. See “Interoperability Among Framework Components” on page 413 for details on mixed environments. The 8.1 T-Server features can be configured using 8.1 Configuration Layer.

Note: Starting with release 7.5, the Keep-Alive Protocol (KPL) backward compatibility is no longer supported. If you have used the KPL with previous versions of Genesys, consider using ADDP after upgrading to 7.5. It provides the same functionality as KPL with fewer limitations. For more information on ADDP, see your *T-Server 8.1 Deployment Guide*.

Note: The 7.6 release of T-Server for Nortel Communication Server 2000/2100 is completely redesigned from 7.5. It now uses a new common framework called GCTM that provides consistency in behavior across Genesys T-Servers. Refer to the Changes from 7.5 to 7.6 section in chapter 10 of the *Framework 7.6 T-Server and HA Proxy for Nortel Communication Server 2000/2100 Deployment Guide* for details on changes to T-Server options in 7.6.

Note: The 8.0 release of T-Server for Tadiran Coral is not backward compatible with the 7.x release of T-Server. See “Known Migration Issues for Specific T-Servers” on page 548 for more information.

T-Server Enhancements

The following sections describe some of the major functional differences between the 8.1 and 8.0 releases of T-Server. See your *T-Server 8.1 Deployment Guide* for information on which of these changes apply to your particular T-Server.

- T-Server no longer connects to applications that have disabled status in the configuration environment.
- The default value of the `background-processing` configuration option has been changed to `true`.
- T-Server now supports the Unresponsive Process Detection feature. The following configuration options enable this feature:
  - `heartbeat-period`
  - `hangup-restart`

  See option descriptions in your *T-Server Deployment Guide.* For more information, refer to the *Framework 8.0 Management Layer User's Guide.*
- T-Server now supports IPv6. For more information, refer to the *Framework 8.1 Deployment Guide.*
- T-Server now supports vSphere 4 Hypervisor.
- T-Server now supports Acresso FLEXNet Publisher 11.9 license manager.
- T-Server is now supported on the following platforms:
  - AIX 7.1 64-bit
  - HP-UX Itanium (version 11i v3)
  - Red Hat Enterprise Linux 5 64-bit

Interoperability Among Framework Components

The term *interoperable* refers to environments where different versions of Genesys solutions, components, or options work together compatibly during the migration process.

Interoperability of Genesys products can occur at two levels of migration:

- **Interoperability at the suite-level** means combining different versions of solutions and options during the migration process.

  Example: You can migrate to the Configuration Layer of Framework 7.5 while still using 6.5 components. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.

- **Interoperability at the solution-specific level** means combining different versions of the components of a particular solution while upgrading them sequentially during the migration process.

  Example: The mixture of components may include executables, applications, routing strategies, scripts, and data that comprise a particular solution.

  As you upgrade each of the components in sequence, you will need to know if it is backward-compatible with the other components of your environment.

T-Server Interoperability

Hot or Warm Standby Mode

If you are running your T-Servers in either `hot` or `warm standby` mode, then the primary and backup T-Servers must both be of the same release family (although within the family there can be minor-release differences).

Single-Site Environment

In single-site environments, if you are using a `hot standby` configuration that requires HA Proxy, you must use the same release family for both your T-Server and its corresponding HA Proxy, with some exceptions noted.

Multi-Site Environment

Multi-site deployments of T-Server allow for interoperability of T-Server versions between sites. You can migrate one T-Server (and its HA Proxy, if appropriate) without migrating your other T-Servers. Use this concept to keep your production system up during migration. You will need to route work through alternate T-Servers while migrating a given T-Server to the current release.

Note: Starting with release 7.6, T-Server for Nortel Communication Server 2000/2100 supports 7.5 HA Proxy.

Additional Information about Migration

The following information is also pertinent to the migration of T-Server 8.1.

- Be sure to review the specific issues that relate to your T-Server, especially with respect to changes in configuration options. (See Chapter 21, “Changes in T-Server and HA Proxy Configuration Options,” on page 415 for details.)

Chapter

21 Changes in T-Server and HA Proxy Configuration Options

The chapter compares the changes for configuration options for T-Server 8.1 operation with earlier releases. In each case, details of the option change are given along with specific configuration instructions, when applicable. As with component configuration in Configuration Manager, the following configuration options are divided into sections.

The options listed here are cumulative from the 6.0 release of T-Server. Read through all the pertinent tables carefully to determine which options offer new or changed functionality for your new T-Server.

This chapter discusses the following topics:

Complete information on each supported T-Server option for the current release is available in your specific *T-Server Deployment Guide*.

Configuration Options Common to All T-Servers

Table 53 outlines the new and enhanced functionality of options in the various configuration sections for your new T-Server. The options listed in this table apply to any T-Server; the "T-Server Common Configuration Options" chapter of your specific *T-Server Deployment Guide* describes these options in detail.

As with the rest of the information in this chapter, it is assumed that you are migrating to the most recent release of T-Server. All version numbers in the following tables are for historical reference only.

Table 53: Changes to T-Server Common Configuration Options

Option Name	Type of Change	Occurred in Release #	Details
TServer Section			
port phone-file	See Details	6.0	These 5.1 options are no longer valid. You must configure all relevant configuration settings in the Configuration Database.
verbose log-file-name log-file-size log-remove-old-files log-check-interval log-buffering	See Details	6.0	These 5.1 options are no longer valid. Refer to Table 5, "Common Option Changes," on page 118 for the replacement information.
link-*n*-name	See Details	6.5.2	The value of *n* cannot be zero.
log-trace-flags	New valid values	6.0	The `+/-devlink` value has been added.
		6.5.0	The following new values have been added: · `+/-iscc` · `+/-passwd` • `+/-sw` (reserved by Genesys Engineering) • `+/-req` (reserved by Genesys Engineering) • `+/-callops` (reserved by Genesys Engineering) • `+/-conn` (reserved by Genesys Engineering)
background-processing	New	6.1	
	See Details	8.1	Default value changed to `true`.
server-id	New default value	6.5.0	New default value: An integer equal to the Application DBID reported by Configuration Server. Old default value: `0`
user-data-limit	New	7.0	
background-timeout	New	7.0.2	
merged-user-data	New 7.1		

Table 53: Changes to T-Server Common Configuration Options (Continued)

Option Name	Type of Change	Occurred in Release #	Details
ani-distribution	New 7.6		
compatibility-port	Obsolete	7.6	
dn-scope	New	8.0	
propagated-call-type	New	8.0	
license Section This section has been added in the 7.0 release. This section must be called `license` in the T-Server configuration.			
license-file	See Details	6.5.0	Prior to the 6.5 release of T-Server, this option was incorrectly listed as dynamic (changes take effect immediately). Any value change to this option only takes effect after T-Server is restarted.
		7.0	This option has been moved to the new License Section. Refer to the *Genesys Licensing Guide* for option description.
num-of-licenses	See Details	6.5.0	Prior to the 6.5 release of T-Server, the maximum value for this option was not documented. The maximum number of licenses that can be specified for this option is `9999`.
		7.0	This option has been moved from the T-Server section to the license section.
num-sdn-licenses	New	7.0	
agent-reservation Section This section has been added in the 6.1 release. This section must be called `agent-reservation`.			
request-collection-time	New	6.1	
	New valid value	6.5.2	New valid value: A string value in the format described in "Timeout Value Format" on page 425. Old valid value: Any integer

Table 53: Changes to T-Server Common Configuration Options (Continued)

Option Name	Type of Change	Occurred in Release #	Details
reservation-time	New	6.1	
	New valid value	6.5.2	New valid value: A string value in the format described in "Timeout Value Format" on page 425. Old valid value: Any integer
reject-subsequent-request	New	6.5.2	
collect-lower-priority-requests	New	8.0	
Multi-Site Support Section (extrouter) This section must be called `extrouter`.			
cast-type	New valid values	6.1	The following valid values have been added: • `direct-notoken` • `direct-ani` • `direct-uui` • `direct-digits` • `reroute` • `dnis-pool`
	New default values	6.5.0	New default values: `route, direct, reroute, direct-uui, direct-notoken, direct-ani, dnis-pool, direct-digits` Old default value: `route`
	Changes take effect	6.5.2	Support for dynamic changes has been clarified in the document. Changes take effect for the next request for remote service.
	New valid value	6.5.3	The `pullback` valid value has been added.
	New valid value	7.1	The `route-IOU` valid value has been added. An alias, `route-nicotine`, has been added to the `route` value.
	New valid value	7.2	The `direct-network-called` valid value has been added.

Table 53: Changes to T-Server Common Configuration Options (Continued)

Option Name	Type of Change	Occurred in Release #	Details
direct-digits-key	New	6.1	
	Changes take effect	6.5.2	Support for dynamic changes has been clarified in the document. Changes take effect for the next request for remote service.
register-attempts	New	6.0	
	Changes take effect	6.5.2	Support for dynamic changes has been clarified in the document. Changes take effect for the next registration.
register-tout	New default value	6.0	New default value: `2` Old default value: `60`
	See Details	6.5.0	This option is now used only with the route type of routing.
	New valid value	6.5.2	New valid value: A string value in the format described in "Timeout Value Format" on page 425. Old valid value: Any integer
	Changes take effect	6.5.2	Support for dynamic changes has been clarified in the document. Changes take effect for the next registration.
default-dn	See Details	6.5.0	This option can also be configured for the `direct` type of routing.
	Changes take effect	6.5.2	Support for dynamic changes has been clarified in the document. Changes take effect for the next request for remote service.
route-dn	Changes take effect	6.1	This option now supports dynamic changes.
dn-for-unexpected-calls	New	6.1	

Table 53: Changes to T-Server Common Configuration Options (Continued)

Option Name	Type of Change	Occurred in Release #	Details
reconnect-tout	New valid value	6.1	The timeout for reconnection can be specified as unlimited.
		6.5.2	New valid value: A string value in the format described in "Timeout Value Format" on page 425. Old valid value: Any integer
	Changes take effect	6.5.2	Support for dynamic changes has been clarified in the document. Changes take effect for the next request for remote service.
request-tout	New default value	6.0	New default value: `20` Old default value: `10`
	New valid value	6.5.2	New valid value: A string value in the format described in "Timeout Value Format" on page 425. Old valid value: Any integer
	Changes take effect	6.5.2	Support for dynamic changes has been clarified in the document. Changes take effect for the next request for remote service.
timeout	New default value	6.0	New default value: `60` Old default value: `30`
	New valid value	6.5.2	New valid value: A string value in the format described in "Timeout Value Format" on page 425. Old valid value: Any integer
	Changes take effect	6.5.2	Support for dynamic changes has been clarified in the document. Changes take effect for the next request for remote service.
report-connid-changes	New 6.	5.0	

Table 53: Changes to T-Server Common Configuration Options (Continued)

Option Name	Type of Change	Occurred in Release #	Details
use-data-from	New valid values	6.5.2	New valid values: `active`, `original`, `consult-user-data` (reserved for Genesys internal use). Old valid values: `consult`, `main`.
	New valid value	7.6	New option value, `active-data-original-call`. **Note:** For compatibility with the previous T-Server releases, you can use the values `consult`, `main`, and `consult-user-data` for this option. These are aliases for `active`, `original`, and `current`, respectively.
	New default value	8.0	New default value: `current`. Old default value: `active`.
cof-feature	New	6.0	
	New default value	6.5.0	New default value: `false` Old default value: `no`
	New valid values	6.5.0	New valid values: `true`, `false` Old valid values: `yes`, `no`
cof-ci-req-tout	New	6.0	
	New valid value	6.5.2	New valid value: A string value in the format described in "Timeout Value Format" on page 425. Old valid value: Any integer
	Changes take effect	6.5.2	Support for dynamic changes has been clarified in the document. Changes take effect for the next COF operation.

Table 53: Changes to T-Server Common Configuration Options (Continued)

Option Name	Type of Change	Occurred in Release #	Details
cof-rci-tout	New	6.0	
	New valid value	6.5.2	New valid value: A string value in the format described in "Timeout Value Format" on page 425. Old valid value: Any integer
	Changes take effect	6.5.2	Support for dynamic changes has been clarified in the document. Changes take effect for the next COF operation.
cof-ci-wait-all New		7.1	
cof-ci-defer-delete New		7.1	
cof-ci-defer-create New		7.2	
event-propagation	New	6.1	
tcs-use	See Details	6.5.0	As supported in later releases of T-Server 5.1, Transfer Connect Service (TCS) is now supported through the reintroduction of this option.
tcs-queue	See Details	6.5.0	As supported in later releases of T-Server 5.1, Transfer Connect Service (TCS) is now supported through the reintroduction of this option.
local-node-id	New	6.1	This option applies only to the T-Server for Nortel Communications Server 2000/2100, formerly known as Nortel DMS-100.
	New default value	6.5.0	New default value: `0` Old default value: No default value
	New valid values	6.5.0	New valid value: `0` or any positive integer Old valid value: Any positive integer
resource-allocation-mode	New	6.5.3	
resource-load-maximum	New	6.5.3	
backup-type	See Details	See Details	Implemented in the 6.0 release, this option has been removed in the 6.1 release.

Table 53: Changes to T-Server Common Configuration Options (Continued)

Option Name	Type of Change	Occurred in Release #	Details
cof-queues	See Details	See Details	Implemented in the 6.0 release for T-Server for Meridian 1, this T-Server common option has been removed in the 6.5 release.
protocol addp-timeout addp-remote-timeout addp-trace	See Details	See Details	Implemented in the 6.0 release, these options have been removed in the 6.5.2 release.
match-call-once	New 7.1		
network-request-timeout	New	7.1	
use-implicit-access-numbers	New 7.2		
inbound-translator-<n>	New 7.2		
compound-dn-representation	New 8.0		
default-network-call-id-matching	See Details	7.2	This option is undocumented in previous versions.
epp-tout	New	8.0	
Transaction Rules Section This section has been added in the 7.2 release. The section name is specified by the `inbound-translator-<n>` option.			
rule-<n>	New 7.2		
backup-sync Section This section has been added in the 6.1 release. This section must be called `backup-sync`. This section applies only to those T-Servers that support `hot standby`.			
protocol	New	6.1	

Table 53: Changes to T-Server Common Configuration Options (Continued)

Option Name	Type of Change	Occurred in Release #	Details
addp-timeout	New	6.1	
	New default value	6.5.2	New default value: `0` Old default value: `1`
	New valid values	6.5.2	New default value: Any integer between `0-3600` Old default value: Any integer between `1-65535`
addp-remote-timeout	New	6.1	
	New default value	6.5.2	New default value: `0` Old default value: `1`
	New valid value		New default value: Any integer between `0-3600` Old default value: Any integer between `1-65535`
addp-trace	New	6.1	
sync-reconnect-tout	New	6.1	
	New valid value	6.5.2	New valid value: A string value in the format described in "Timeout Value Format" on page 425. Old valid value: Any integer
network-provided-address	New 7.1		
	Obsolete	7.6	
call-cleanup Section This section has been added in the initial 7.1 release. This section must be called `call-cleanup`.			
notify-idle-tout	New 7	.1	
cleanup-idle-tout	New 7	.1	
periodic-check-tout	New 7.1		

Table 53: Changes to T-Server Common Configuration Options (Continued)

Option Name	Type of Change	Occurred in Release #	Details
Security Section This section has been added in the initial 7.5 release. This section must be called `Security`.			
certificate	New 7.5		
certificate-key	New 7.5		
trusted-ca	New 7.5		

T-Server also supports common log options. See Table 5, "Common Option Changes," on page 118 for details.

Timeout Value Format

This section of the document describes the values to use for those T-Server common options that set various time-outs. The current format allows you to use fractional values and various time units for timeout settings.

For timeout-related options, you can specify any value that represents a time interval as long as it is specified in either of the following formats:

```
[[[hours:]minutes:]seconds][.msecs]
```

or

```
[hours ruminates min][seconds sec][msecs msec]
```

Where a time unit name in italic (such as *hours)* is to be replaced by an integer value for this time unit.

Integer values with no measuring units are still supported for compatibility with previous releases of T-Server. When you do not specify any measuring units, the same units apply as those of the default value. For example, if the default value equals `60 sec`, specifying the value of `30` sets the option to 30 seconds.

Example 1 The following settings result in a value of 1 second and 250 milliseconds:

```
sync-reconnect-tout = 1.25
sync-reconnect-tout = 1 sec 250 msec
```

Example 2 The following settings result in a value of 1 minute and 30 seconds:

```
timeout = 1:30
timeout = 1 min 30 sec
```

T-Server-Specific Configuration Options

Refer to the following tables to find specific information relating to option changes that may have occurred between the most recent 8.1 release of T-Server and your earlier release. Complete information on each supported T-Server option for the current release is available in your specific *T-Server Deployment Guide*.

Note: Names of T-Servers have changed over time both to reflect their modified functionality and to accommodate the changes in names of switches. The names for T-Servers in this chapter reflect the most recent names for those products.

Changes to Options for HA Proxy

If an HA Proxy component has any changes to its configuration options, those changes are noted after the section corresponding to the T-Server with which it is associated.

Changes to T-Server-Specific Configuration Options

The following T-Servers have important differences in configurations from earlier releases (see the accompanying tables for details).

Changes to Network T-Servers-Specific Options

Network T-Servers with No Configuration Option Changes

- Network T-Server for Sprint

T-Server for Alcatel A4200/OXO

Prior to release 7.1, this product was known as T-Server for Alcatel A4200. Table 54 shows the modifications made to switch-specific options for T-Server for Alcatel A4200/OXO when migrating to its latest release.

Table 54: Option Modifications in T-Server for Alcatel A4200/OXO

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
inbound-bsns-calls	New	6.5.1	
outbound-bsns-calls	New	6.5.1	
legal-guard-time	New	6.5.1	
wrap-up-time	New	6.5.1	
timed-cwk-in-idle	New	6.5.1	
cwk-in-idle-force-ready	New	6.5.1	
agent-strict-id	New	6.5.2	
supervised-route-timeout	New	6.5.2	
shutdown-limit	Removed	6.5.2	
agent-no-answer-timeout	New	6.5.2	
	Modified	7.0	
agent-no-answer-overflow	New	6.5.2	
	Modified	7.0	
agent-no-answer-action	New	6.5.2	
	Modified	7.0	
notrdy-bsns-cl-force-rdy	New	7.0	
	Removed	7.6	
prd-dist-call-ans-time	New	7.0	
max-pred-req-delay	New	7.0	
extn-no-answer-timeout	New	7.0	
extn-no-answer-overflow	New	7.0	

Table 54: Option Modifications in T-Server for Alcatel A4200/OXO (Continued)

Option Name	Type of Change	Occurred in Release #	Details
posn-no-answer-timeout	New	7.0	
posn-no-answer-overflow	New	7.0	
inherit-bsns-type	New	7.0.2	
retain-call-tout	Modified	7.6	Renamed from `retain-call-tmout` and moved from CTI-Link section.
unknown-xfer-merge-udata	New	7.6	
untimed-wrap-up-value	New	7.6	
internal-bsns-calls	New	7.6	
unknown-bsns-calls	New	7.6	
wrap-up-threshold	New	7.6	
inherit-bsns-type	New	7.6	
backwds-compat-acw-behavior	New	7.6	
emulated-login-state	New	7.6	
sync-emu-agent	New	7.6	
agent-group	New	7.6	
timed-acw-in-idle	Modified	7.6	Renamed from `timed-cwk-in-idle`.
acw-in-idle-force-ready	Modified	7.6	Renamed from `cwk-in-idle-force-ready`.
nas-private Ne	w	7.6	
recall-no-answer-timeout	New	7.6	
nas-indication	New	7.6	
accept-dn-type	New	7.6	
default-dn-type	New	7.6	
dn-del-mode	New	7.6	
callback-dn	New	7.6	

Table 54: Option Modifications in T-Server for Alcatel A4200/OXO (Continued)

Option Name	Type of Change	Occurred in Release #	Details
correct-connid	New	7.6	
correct-rqid	New	7.6	
convert-otherdn	New	7.6	
dn-for-undesired-calls	New	7.6	
auto-xfer-dly	New	7.6	
onhook-dly	New	7.6	
consult-supervised-rt	Modified	7.6	Default value changed to `false`.
Application-Level Options > SwitchSpecificType Section (New in 7.6)			
extension	New	7.6	
Application-Level Options > CTI-Link Section			
reroute-gap	Removed	6.5.2	
reg-interval	New	6.5.2	
	Modified	7.0.2	Default value changed from `60` to `0`.
	Removed	7.6	
expire-call-tmout	Removed	7.0.2	
call-rq-gap	New	7.0.2	
hostname host	New	7.0.2	Name changed to `hostname`. You can still use the previous name as an alias.
reg-delay New		7.6	
reg-silent	New	7.6	
rq-gap	New	7.6	
restart-cleanup-limit	New	7.6	
restart-cleanup-dly	New	7.6	
quiet-cleanup	New	7.6	
quiet-startup New		7.6	

Table 54: Option Modifications in T-Server for Alcatel A4200/OXO (Continued)

Option Name	Type of Change	Occurred in Release #	Details
rq-expire-tout	New	7.6	
	Modified	7.6	Renamed from `rq-expire-tmout`.
ha-sync-dly-lnk-conn	New	7.6	
kpl-interval	New	7.6	
kpl-tolerance	New	7.6	
kpl-loss-rate	New	7.6	
port	Modified	7.6	Default value changed from no default value to `2555`.
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-timeout	New	7.0	
no-answer-overflow	New	7.0	
no-answer-action	New	7.0	

T-Server for Alcatel A4400/OXE

Prior to release 7.1, this product was known as T-Server for Alcatel A4400. Table 55 shows the modifications made to switch-specific options for T-Server for Alcatel A4400/OXE when migrating to its latest release.

Table 55: Option Modifications in T-Server for Alcatel A4400/OXE

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
rsi-remain-retry	New	6.1	
rsi-reroute-auth	New	6.1	
ack-on-noevt	New	6.1	
agent-state-evt-tout	New	6.1	
tserver-date-time	Removed	6.5.1	
update-pbx-time-interval	Removed	6.5.1	

Table 55: Option Modifications in T-Server for Alcatel A4400/OXE (Continued)

Option Name	Type of Change	Occurred in Release #	Details
sstep-transfer-enable	Removed	6.5.1	
release-busy-dest	Removed	6.5.1	
snapshot-on-start	New	6.5.1	
timed-cwk-in-idle	New	6.5.3	
cwk-in-idle-force-ready	New	6.5.3	
auto-transfer-to-route	New default value	6.5.3 New	value: `true` Old value: `false`
rsi-reroute-auth	New default value	6.5.3	New value: `63`
legal-guard-acw	New	6.5.3	
supervised-route	New	6.5.3	
agent-smart-monitor	New valid value	6.5.3	New value: `strict`
backup-routepoint	Removed	6.5.3	
agent-no-answer-timeout	New	7.0	
agent-no-answer-overflow	New	7.0	
agent-no-answer-action	New	7.0	
extn-no-answer-timeout	New	7.0	
extn-no-answer-overflow	New	7.0	
posn-no-answer-timeout	New	7.0	
posn-no-answer-overflow	New	7.0	
prd-dist-call-ans-time	New	7.0	Functionality changed.
notrdy-bsns-cl-force-rdy New		7.0	
	Removed	8.0	
max-pred-req-delay New		7.0	
pcm-port-rls-dly	New	7.0.1	

Table 55: Option Modifications in T-Server for Alcatel A4400/OXE (Continued)

Option Name	Type of Change	Occurred in Release #	Details
min-xfer-init-dly	New	7.0.1	
min-xfer-complete-dly	New	7.0.1	
auto-originate	Modified	7.0.2	Functionality changed.
trace	Removed	7.0.2	
allow-20-announ	New	7.0.2	
clean-failed-to-pilot	New	7.0.2	
snapshot-interval	New	7.0.2	
dtmf-tone-pause-duration	Removed	7.0.2	
dtmf-tone-duration	Removed	7.0.2	
min-route-dly	New	7.0.2	
correct-rqid	New	7.0.2	
correct-connid	New	7.0.2	
rsi-xfer-tout	New	7.0.2	
rsi-report-xfer	New	7.0.2	
max-outstanding	New	7.0.2	
	See Details	7.1	Moved from the `TServer` section to the `link-control` section.
log-con-conf	Removed	7.0.2	
rq-gap	New	7.0.2	
	See Details	7.1	Moved from the `TServer` section to the `link-control` section.
convert-otherdn	New	7.1	
callback-dn	New	7.1	
accode-privateservice	New	7.1	
accode-data	New	7.1	

Table 55: Option Modifications in T-Server for Alcatel A4400/OXE (Continued)

Option Name	Type of Change	Occurred in Release #	Details
accode-name	New	7.1	
	See Details	8.0	Default value changed from `GCTI_CSTA_ACCOUNT_INFO` to `AccountCode` in 8.0.
supervised-route-timeout route-no-answer-timeout	Modified	7.1	Renamed from `route-no-answer-timeout` to `supervised-route-timeout`. You can still use the previous name as an alias.
agent-strict-id	New	7.1	
	See Details	8.0	New value `passwd` added.
failed-call-rls-dly	New	7.1	
inbound-bsns-calls	Modified	7.1	Functionality extended to include real agents.
outbound-bsns-calls	Modified	7.1	Functionality extended to include real agents.
wrap-up-time agent-pause-time	Modified	7.1	Renamed from `agent-pause-time` to `wrap-up-time`. You can still use the previous name as an alias.
agent-substitute	Modified	7.1	Default value changed to `true`.
link-*n*-name	Modified	7.1	Default value changed to `link-tcp`.
inherit-bsns-type	New	7.1	
internal-bsns-calls	New	7.1	
unknown-bsns-calls	New	7.1	
nas-private	New	7.1	
switchover-grace-tout	New	7.1	
	Removed	8.0	
switchover-bck-compat	New	7.1	
	Removed	8.0	
emu-redir-accode	New	7.1	

Table 55: Option Modifications in T-Server for Alcatel A4400/OXE (Continued)

Option Name	Type of Change	Occurred in Release #	Details
emu-redir-enable	New	7.1	
emu-redir-handover-tout	New	7.1	
snapshot-mon-opt	New	7.2	
	Removed	8.0	
use-rsi-consult	New	7.2	
unknown-xfer-merge-udata	New	7.2	
legal-guard-reason	New	7.2	
extdn-bck-compat	New	7.5	
	Removed	8.0	
force-long-eqid	New	7.5	
	See Details	8.0	Moved to the `link-control` section.
retain-call-tout	See Details	8.0	Moved to the `TServer` section.
clid-withheld-name	New	8.0	
agent-group	New	8.0	
preassign-agent-compat	New	8.0	
rel-cons-reconnect	New	8.0	
dn-for-undesired-calls	New	8.0	
untimed-wrap-up-value	New	8.0	
wrap-up-threshold	New	8.0	
timed-acw-in-idle	New	8.0	
acw-in-idle-force-ready	New	8.0	
backwds-compat-acw-behavior	New	8.0	
override-switch-acw	New	8.0	
sync-emu-acw	New	8.0	
nas-indication	New	8.0	

Table 55: Option Modifications in T-Server for Alcatel A4400/OXE (Continued)

Option Name	Type of Change	Occurred in Release #	Details
accept-dn-type	New	8.0	
default-dn-type	New	8.0	
dn-del-mode	New	8.0	
emulate-login	New	8.0	
emulated-login-state	New	8.0	
agent-only-private-calls	New	8.0	
agent-logout-on-unreg	New	8.0	
agent-logout-reassoc	New	8.0	
agent-emu-login-on-call	New	8.0	
call-type-by-dn	New	8.0	
releasing-party-report	New	8.0	
route-failure-alarm-high-wm	New	8.0	
route-failure-alarm-low-wm	New	8.0	
rsi-bypass-fwd-dnd	New	8.0	
super-queue	Removed	8.0	
max-ext-xfer-dly	New	7.6	
	Removed	8.0	
bsns-call-dev-types	New	8.1	
acw-retain-call	New 8.0		
acw-retain-lock	New 8.0		
routing-queue	New 8.0		
make-call-morph	New 8.0		
wait-delivered	New 8.0		

Table 55: Option Modifications in T-Server for Alcatel A4400/OXE (Continued)

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > SwitchSpecificType Section (new in 8.0)			
extension	New	8.0	
acd-position	New	8.0	
routing-point	New	8.0	
Application-Level Options > link-control Section This section has been added in the initial 7.1 release. This section must be called `link-control`.			
rq-gap	See Details	7.1	Moved from the `TServer` section to the `link-control` section.
expire-call-tout	New	7.1	
	Removed	8.0	
full-linktrace	New	7.1	
	Removed	8.0	
ha-sync-dly-lnk-conn	New	7.1	
rq-expire-tout	New	7.1	
	See Details	7.5	Default and valid values changed.
	See Details	8.0	Default value changed from `90000` to `10000`.
restart-period	New	7.1	
restart-cleanup-limit	New	7.1	
	See Details	8.0	Default value changed from `0` to `10`.
restart-cleanup-dly	New	7.1	
quiet-cleanup	New	7.1	
quiet-startup	New	7.1	
max-outstanding	See Details	7.1	Moved from the `TServer` section to the `link-control` section.
retain-call-tout	New	7.5	

Table 55: Option Modifications in T-Server for Alcatel A4400/OXE (Continued)

Option Name	Type of Change	Occurred in Release #	Details
port	See Details	7.1	Default value changed to 2555. Previously there was no default value.
reg-delay	New	8.0	
reg-silent	New	8.0	
kpl-interval	New	8.0	
kpl-tolerance	New	8.0	
kpl-loss-rate	New	8.0	
	Removed	8.1	
call-rq-gap	New	8.0	
link-alarm-high	New	8.0	
link-alarm-low	New	8.0	
use-link-bandwidth	New	8.0	
rq-conflict-check	New	8.0	
device-rq-gap	New	8.0	
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-action	New	7.0	
no-answer-timeout	New	7.0	
no-answer-overflow	New	7.0	
dn-for-undesired-calls	New	7.1	
bsns-call-type	New	8.1	

Note: When configuring the 8.0 T-Server, do not delete previously configured pre-8.0 options in the T-Server `Application` object. The presence of obsolete configuration options in the T-Server `Application` object does not affect the operation of the 8.0 T-Server.

T-Server for Aspect ACD

The high-availability deployment possibilities for this T-Server have gone through a number of modifications. It is important that you refer to your specific *T-Server 8.1 Deployment Guide* for this T-Server for details if you are migrating from or migrating to a high-availability deployment.

Table 56 shows the modifications made to switch-specific options for T-Server for Aspect ACD when migrating to its latest release.

Table 56: Option Modifications in T-Server for Aspect ACD

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
ams-delay	See Details		Omitted previously in error.
answer-mode	See Details		Omitted previously in error.
rna-timeout	See Details		Omitted previously in error.
link-1-name	New	6.5.3	Valid value: `CS4-Link` (Identifies name of section containing connection information about the Contact Server, version 4.)
link-*n*-name	New	6.5.3	
	New default value	7.0	New default value: `link-tcp` Old default value: empty string
deliver-data-variables	Previously undocumented values	7.0	Undocumented valid values: `ringing` and `established`
deliver-track-data	Previously undocumented values	7.0	Undocumented valid values: `in-user-data` and `user-data`
route-call-method	New value	7.0	New valid value: `CIMR-and-CCR`
	Modified	8.1	
agent-acw-predict	New	7.0	
password-separator	Removed	7.0	
	Re-introduced	7.0.2	

Table 56: Option Modifications in T-Server for Aspect ACD (Continued)

Option Name	Type of Change	Occurred in Release #	Details
primary-port	New default value	7.0	Default value: `-1` Functionality changed from 6.5.3 onwards with removal of HA Proxy.
	Removed	8.1	
use-track-id	New	7.0.1	
	Removed	8.1	
use-dndoff	New 7.	0.1	
send-rls-on-acw	New	7.0.1	
	Modified	7.0.2	New value: `omit-pkr`
walk-away-bck-compat	New	7.0.2	Default value: `link-tcp`
second-call-consult	New	7.0.2	
correct-connid	New	7.0.2	
correct-rqid	New 7.0.2		
use-hook-evt	New	7.0.2	
convert-otherdn	New	7.1	
poll-dn-tout	New 7	.1	
convert-otherdn	New	7.1	
poll-dn-tout	New	7.1	
route-uses-ctimr	New	7.2	
rtend-subtype	New	7.2	
rtabrt-subtype	New	7.5	
route-uses-ctimr	See Details	7.6	Default value changed to `false`.
station-svc-evt	See Details	7.6	Default value changed to `no`.
releasing-party-report	New	8.0	
route-failure-alarm-high-wm	New	8.0	

Table 56: Option Modifications in T-Server for Aspect ACD (Continued)

Option Name	Type of Change	Occurred in Release #	Details
route-failure-alarm-low-wm	New	8.0	
route-failure-alarm-period	New	8.0	
dest-rtp-ext-name	New	8.1	
dial-plan-length	New	8.1	
field-separator	Removed	8.1	
internal-call-cct	Modified	8.1	
orig-rtp-ext-name	New	8.1	
outbound-call-cct	Modified 8.1		
redirect-call-cct	New	8.1	
single-step-transfer-cct	Modified	8.1	
use-event-bridge	Removed	8.1	
Application-Level Options > link-control Section			
kpl-interval	New	7.1	
kpl-tolerance	New	7.1	
ha-sync-dly-lnk-conn	New	7.1	
restart-period	New	7.2	
restart-cleanup-dly	New	7.2	
restart-cleanup-limit	New	7.2	
quiet-startup	New	7.2	
quiet-cleanup	New	7.2	
link-alarm-high	New	8.0	
link-alarm-low	New	8.0	
use-link-bandwidth	New	8.0	

Table 56: Option Modifications in T-Server for Aspect ACD (Continued)

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > CTI-Link Section			
link-id	New	6.5.2	
	Removed	8.0	
host	New	6.5.3	
port	New	6.5.3	
protocol	New	6.5.3	
cs-configuration	New	6.5.3	
All Options			
Dynamic reconfiguration of options has been implemented in 7.0.202. Any exceptions are documented.			

T-Server for Avaya Communication Manager

Over the course of its previous releases, the T-Server name has changed for various reasons, including, but not limited to, changes in vendor name or in Genesys policy. The former names include:

- T-Server for Lucent DEFINITY G3.
- T-Server for Avaya DEFINITY ECS (G3).
- T-Server for Avaya DEFINITY ECS (MV).

The current name is T-Server for Avaya Communication Manager.

Table 57 shows the modifications made to switch-specific options for T-Server for Avaya Communication Manager, when migrating to its latest release.

Table 57: Option Modifications in T-Server for Avaya Communication Manager

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
delay-event-link-connected	New	6.5.2	
	New default value	7.0	New value: `true` Old value: `false`
	Removed	7.5	
merge-consult-data	New valid values	6.5.2	New valid values: `false, orig-prio, consult-prio` Old valid values: `false, orig-prio, consult-prio, copy-consult`
	Obsolete	7.1	Use the T-Server common option `merged-user-data` instead. You can still use `merge-consult-data` as an alias.
log-trace-flags (specific to this T-Server)	New default and valid values	6.5.2	New default value: `+asai_dump` New valid values: `+/-asai_dump`
	See Details	7.5	Documented incorrectly. The correct default value for this option is `-qass`.
override-incorrect-calltype	New	6.5.3	
	Removed	7.5	
ts-tp-enabled	New	6.5.3	
ts-tp-heartbeat-timer New		6.5.3	
ts-tp-heartbeat-timout	New	6.5.3	
follow-calls	New	6.5.3	
preserve-collected-digits	New valid value	6.5.3	New value: `accumulate`
second-call-as-consult	New	6.5.3	
soft-login-support	New	7.0	

Table 57: Option Modifications in T-Server for Avaya Communication Manager (Continued)

Option Name	Type of Change	Occurred in Release #	Details
soft-wrap-up-time	New	7.0	
disable-digits-collection	New default value	7.0	New value: `true` Old value: `false`
max-registration-per-sec	Removed	7.0.2	Replaced with `bandwidth-startup`.
bandwidth	New	7.0.1	
	Removed	7.0.2	Replaced with `use-link-bandwidth-startup`.
bandwidth-startup-reg	New	7.0.1	
	Removed	7.0.2	Replaced with `use-link-bandwidth-startup`.
bandwidth-startup-query	New	7.0.1	
	Removed	7.0.2	Replaced with `use-link-bandwidth-startup`.
use-link-bandwidth	New	7.0.2	
	Modified	7.5	Option functionality has been modified.
	Modified	8.0	New range of valid values: `0-3000`.
use-link-bandwidth-startup	New	7.0.2	Replaces `bandwidth`, `bandwidth-startup-reg`, and `bandwidth-startup-query`.
	Obsolete	7.5	Still available for backward compatibility.
	Modified	8.0	New range of valid values: `0-3000`.
use-link-bandwidth-backup	New 7.	6	
	Modified	8.0	New range of valid values: `0-3000`.
query-on-timer	New	7.0.2	
query-agent-work-mode	New valid value	7.0.2	New value `on-timer` added.

Table 57: Option Modifications in T-Server for Avaya Communication Manager (Continued)

Option Name	Type of Change	Occurred in Release #	Details
enable-query-on-timer-aux	New	7.0.2	
	Modified	7.5	This option is for backward compatibility of the `enable-query-on-timer` option.
enable-query-on-timer	See Details	7.5	This option name replaces `enable-query-on-timer-aux`.
msec-wait-for-ack	New default value	7.0.1	New value: `12000` Old value: `3000`
high-water-mark	New	7.0.1	
	Modified	8.0	Minimum value changed to `10`.
use-old-fwd-key	New	7.1	
enable-ucid-swap	New default value	7.2	New value: `true` Old value: `false`
foreign-party-uses-dialed-num	New	7.2	
	Removed	7.5	
agent-no-answer-timeout	New	7.5	
agent-no-answer-action	New	7.5	
agent-no-answer-overflow	New	7.5	
query-on-timer-acw	New	7.5	
query-on-timer-auto-in	New	7.5	
query-on-timer-man-in	New	7.5	
num-of-host-crv	Removed	7.5	
broken-tp-callended	Removed	7.5	
call-clear-timeout-sec	Removed	7.5	
translate-addr-by-type	Removed	7.5	
5ESS	Removed	7.5	

Table 57: Option Modifications in T-Server for Avaya Communication Manager (Continued)

Option Name	Type of Change	Occurred in Release #	Details
5E-agent-status	Removed	7.5	
ts-tp-enabled	See Details	7.5	Default value has been changed to `true`.
send-tcs-dtmf	New	7.5	
max-attempts-to-register	Modified	7.5	Option description changed.
set-otherdn-trunk-info	New	7.5	
create-addr-on-register	New	8.0	
interflow-as-dnis	New	8.0	
link-alarm-high	New	8.0	
route-failure-alarm-high-wm	New	8.0	
route-failure-alarm-low-wm	New	8.0	
route-failure-alarm-period	New	8.0	
update-button-info	New	8.0	
use-auto-dial	New	8.0	
out-of-service-retry-interval	New	8.0	
releasing-party-report	New	8.0	
use-am-detection	Modified	8.1	The list of valid values has been modified. T-Server now supports values of `true`, `drop`, `connect`, `admin`, `false`, and `unspecified`.
Application-Level Options > CTI-Link Section			
link-type	New	8.0	
Application-Level Options > CTI-Link Section for DMCC			
hostname	New	8.0	
link-type	New	8.0	
password	New	8.0	
port	New	8.0	

Table 57: Option Modifications in T-Server for Avaya Communication Manager (Continued)

Option Name	Type of Change	Occurred in Release #	Details
session-duration	New	8.0	
switch-name	New	8.0	
username	New	8.0	
Application-Level Options > query-agent-state Section This section has been added in the 7.0.2 release. This section must be called `query-agent-state`.			
enable-query-on-timer-aux	New	7.0.2	
query-on-timer-AUX<X>	New	7.0.2	

HA Proxy for Avaya DEFINITY ECS (MV)

Prior to release 7.1, this product was known as HA Proxy for Avaya DEFINITY ECS (G3) and even prior to that, as HA Proxy for Lucent DEFINITY G3 ECS.

No configuration options changed between release 6.x and 7.0.

Note: Starting with release 7.1, HA Proxy for Avaya Communication Manager is no longer supported.

T-Server for Avaya INDeX

Table 58 shows the modifications made to switch-specific options for T-Server for Avaya INDeX when migrating to its latest release.

Table 58: Option Modifications in T-Server for Avaya INDeX

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
shutdown-limit	Removed	6.5.2	

Table 58: Option Modifications in T-Server for Avaya INDeX (Continued)

Option Name	Type of Change	Occurred in Release #	Details
supervised-route-timeout	New default value	7.0	New default value: none Old default value: `0`
	New default value	6.5.3	New default value:`0` (in 6.5.3) Old default value: `5`
	New	6.5.2	
prd-dist-call-ans-time	New	6.5.3	
inbound-bsns-calls	New 6.5.3		
outbound-bsns-calls	New	6.5.3	
legal-guard-time	New	6.5.3	
wrap-up-time	New	6.5.3	
timed-cwk-in-idle	New	6.5.3	
cwk-in-idle-force-ready	New	6.5.3	
agent-strict-id	New	6.5.3	
agent-no-answer-timeout	Modified	7.0	
	New	6.5.2	
agent-no-answer-overflow	Modified 7.0		
	New 6.5.2		
agent-no-answer-action	Modified	7.0	
	New	6.5.2	
notrdy-bsns-cl-force-rdy	New	7.0	
	Removed	7.6	
max-pred-req-delay	New	7.0	
extn-no-answer-timeout	New	7.0	
extn-no-answer-overflow	New	7.0	
posn-no-answer-timeout	New	7.0	

Table 58: Option Modifications in T-Server for Avaya INDeX (Continued)

Option Name	Type of Change	Occurred in Release #	Details
posn-no-answer-overflow	New	7.0	
inherit-bsns-type	New	7.0.2	
use-redirect	New	7.0.2	
accept-err-sstep	New 7.0.2		
unknown-xfer-merge-udata	New	7.6	
clid-withheld-name	New	7.6	
agent-group	New	7.6	
wrap-up-threshold	New	7.6	
untimed-wrap-up-value	New	7.6	
internal-bsns-calls	New	7.6	
unknown-bsns-calls	New	7.6	
wrap-up-threshold	New	7.6	
inherit-bsns-type	New	7.6	
backwds-compat-acw-behavior	New	7.6	
override-switch-acw	New	7.6	
nas-private	New	7.6	
recall-no-answer-timeout	New	7.6	
nas-indication New		7.6	
accept-dn-type	New	7.6	
nas-private New		7.6	
recall-no-answer-timeout	New	7.6	
nas-indication	New	7.6	
accept-dn-type	New	7.6	
default-dn-type	New	7.6	
dn-del-mode	New	7.6	

Table 58: Option Modifications in T-Server for Avaya INDeX (Continued)

Option Name	Type of Change	Occurred in Release #	Details
emulate-login	New	7.6	
emulated-login-state	New	7.6	
sync-emu-agent	New	7.6	
retain-call-tout	New	7.6	
	Modified	7.6	Renamed from `retain-call-tmout` and moved to the `TServer` section.
emu-sstr	New	7.6	
cleanup-reserved	New	7.6	
dial-separator	New	7.6	
acw-in-idle-force-ready	Modified	7.6	Renamed from `cwk-in-idle-force-ready`.
timed-acw-in-idle Modi	fied	7.6	Renamed from `timed-cwk-in-idle`.
supervised-route-timeout	Modified	7.6	Default value changed to `5`.
consult-supervised-rt	Modified	7.6	Default value changed to `false`.
correct-connid New		7.6	
correct-rqid New		7.6	
convert-otherdn New		7.6	
dn-for-undesired-calls New		7.6	
consult-supervised-rt	Modified	7.6	Default value changed to `false`.
Application-Level Options > SwitchSpecificType Section (New in 7.6)			
acd-queue	New	7.6	
Application-Level Options > cof-matching-trunks Section (New in 7.6.001.00)			
trunk-match-*n*	New	7.6	
Application-Level Options > trunk-match-<*n*> Section (New in 7.6.001.00)			
trunk-match-*n*	New	7.6	
location	New	7.6	

Table 58: Option Modifications in T-Server for Avaya INDeX (Continued)

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > link-control Section			
reroute-gap	Removed	6.5.2.	
backup-mode	New	6.5.2	
	Removed	6.5.3	
max-outstanding	New	6.5.3	
rq-gap	New 6.5.3		
rq-expire-tmout	New default value	6.5.3	New value: `10000` Old value: `5000`
access-manager	Removed	7.0	
kpl-interval	New	6.5.2	
	Modified	7.0.2	New default value: `60` Old default value: `10`
	Modified	7.6	Default value changed to `10`.
kpl-tolerance	New	6.5.2	
	Modified	7.0.2	New default value: `2` Old default value: `3`
	Modified	7.6	Default value changed to `3`.
call-rq-gap	New	7.0.2	
reg-interval	New	7.0.2	
reg-delay	New	7.6	
reg-silent	New	7.6	
restart-cleanup-limit	New	7.6	
restart-cleanup-dly	New	7.6	
quiet-cleanup	New	7.6	
quiet-startup New		7.6	
kpl-loss-rate	New	7.6	

Table 58: Option Modifications in T-Server for Avaya INDeX (Continued)

Option Name	Type of Change	Occurred in Release #	Details
ha-sync-dly-lnk-con	New	7.6	
rq-expire-tout	Modified	7.6	Renamed from `rq-expire-tmout`.
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-timeout	New	7.0	
no-answer-overflow	New	7.0	
no-answer-action	New	7.0	

T-Server for Avaya TSAPI

Table 59 shows the modifications made to switch-specific options for T-Server for Avaya TSAPI when migrating to its latest release.

Table 59: Option Modifications in T-Server for Avaya TSAPI

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
create-addr-on-register	New	8.0	
high-water-mark	New 7.6		
link-alarm-high	New	8.0	
update-button-info	New	8.0	
use-auto-dial	New	8.0	
use-link-bandwidth	New 7	.6	
	Modified	8.0	New range of valid values: `0-3000`
use-link-bandwidth-backup	New 7	.6	
	Modified	8.0	New range of valid values: `0-3000`
recv-extra-bufs	New	8.0	
recv-q-size	New	8.0	
releasing-party-report	New	8.1	

Table 59: Option Modifications in T-Server for Avaya TSAPI (Continued)

Option Name	Type of Change	Occurred in Release #	Details
send-extra-bufs	New	8.0	
send-q-size	New	8.0	
set-call-type-on-dialing	New	8.0	
use-am-detection	Modified	8.1	The list of valid values has been modified. T-Server now supports values of `true`, `drop`, `connect`, `admin`, `false`, and `unspecified`.
Application-Level Options > CTI-Link Section for DMCC			
hostname	New	8.0	
link-type	New	8.0	
port	New	8.0	
password	New	8.0	
session-duration	New	8.0	
switch-name	New	8.0	
username	New	8.0	
Application-Level Options > Multi-Site Support Section (extrouter)			
default-network-call-id-matching	New	8.0	

T-Server for Cisco Unified Communications Manager

Prior to release 8.0, this product was known as T-Server for Cisco CallManager.

Table 60 shows the modifications made to switch-specific options for T-Server for Cisco Unified Communications Manager when migrating to its latest release.

Table 60: Option Modifications in T-Server for Cisco Unified Communications Manager

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
multi-dn-login	New	6.5.3	
	Removed	7.5	
logout-on-out-of-service	New	7.0	
default-dn	See Details	7.0	New functionality. Provides the destination for calls that cannot be queued.
use-default-route	New	7.2	
audio-codec	Changes take effect	7.2	Changed to “After T-Server is restarted”
packet-size	Changes take effect	7.2	Changed to “After T-Server is restarted”
callmgr-autopickup-on	New	7.5	
logout-on-agent-disconnect	New	7.5	
logout-on-fwd	New	7.5	
enable-pickup-jtapi-workaround	New	7.5	
enable-data-on-bridged	New	7.5	
wait-after-sm-conn-secs	Removed	7.5	
complete-rp-mutexfer-before-route	Removed	7.5	
agent-no-answer-action	New	7.5	

Table 60: Option Modifications in T-Server for Cisco Unified Communications Manager (Continued)

Option Name	Type of Change	Occurred in Release #	Details
agent-no-answer-overflow	New	7.5	
agent-no-answer-timeout	New	7.5	
link-*n*-name	New	7.6	
ccm-host	Removed	8.0	
default-monitor-mode	New	8.0	
intrusion-enabled	New	8.0	
password	Removed	8.0	
record-only-business-calls	New	8.0	
recording-filename	New	8.0	
recording-filename-suffix	New	8.0	
user-login	Removed	8.0	
create-addr-on-register	New	8.1	
HUNTLIST_ENABLED	New	8.1	
ignore-cisco-cause-500	New	8.1	
update-shared-delete-from-conf	New	8.1	
use-calling-party-display-name	New	8.1	
use-called-party-display-name	New	8.1	
Application-Level Options > JTAPI Section			
JTAPI section	New section	6.5.3	
TServerTraceFileBase	New	8.0	
TServerTraceFileExt	New	8.0	
TServerTraceMaxFiles	New	8.0	
TServerTraceMaxFileSize	New	8.0	

Table 60: Option Modifications in T-Server for Cisco Unified Communications Manager (Continued)

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > Global Group Section			
jvm-or-socket	New	7.2	
	See Details	7.6	The default value has changed to `socket`.
	Removed	8.0	
java-port	New	7.2	
	Removed	7.6	
enable-pickup-jtapi-workaround	New	7.5	
callmgr-autopickup-on	New	7.5	
enable-jtapi-keep-alive	New	7.5	
jtapi-keep-alive-timeout	New	7.5	
jtapi-keep-alive-retries	New	7.5	
Application-Level Options > Link Section			
ccm-host	New	7.6	
hostname	New	7.6	
password	New	7.6	
port	New	7.6	
protocol	New	7.6	
user-login	New	7.6	
DN-Level Options > TServer Section			
record	New	8.0	

T-Server for DataVoice Dharma

Table 61 shows the modifications made to switch-specific options for T-Server for DataVoice Dharma when migrating to its latest release.

Table 61: Option Modifications in T-Server for DataVoice Dharma

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
link-status-time	Removed	6.5.2	
route-rq-attempt	Removed	6.5.2	
shutdown-limit	Removed	6.5.2	
inbound-bsns-calls	New	6.5.3	Default value: `false`
outbound-bsns-calls	New	6.5.3	Default value: `false`
legal-guard-time	New	6.5.3	Default value: `0`
wrap-up-time	New	6.5.3	Default value: `0`
timed-cwk-in-idle	New	6.5.3	Default value: `true`
cwk-in-idle-force-ready	New	6.5.3	Default value: `true`
agent-strict-id	New	6.5.3	Default value: `false`
agent-no-answer-timeout	New	6.5.3	Default value: `15`
	Modified	7.0	
agent-no-answer-overflow	New	6.5.3	No default value
	Modified	7.0	
agent-no-answer-action	New	6.5.3	Default value: `none`
	Modified	7.0	
notrdy-bsns-cl-force-rdy	New	7.0	Default value: `false`
extn-no-answer-timeout	New	7.0	Default value: `15`
extn-no-answer-overflow	New	7.0	No default value
posn-no-answer-timeout	New	7.0	Default value: `15`

Table 61: Option Modifications in T-Server for DataVoice Dharma (Continued)

Option Name	Type of Change	Occurred in Release #	Details
posn-no-answer-overflow	New	7.0	No default value
supervised-route-timeout	New	7.0	No default value
consult-supervised-rt	New	7.0	Default value: `true`
prd-dist-call-ans-time	New	7.0	Default value: `0`
mute-xfer-dly	New 7.0.2		
max-pred-req-delay	New	7.0.2	
Application-Level Options > CTI-Link Section			
rq-gap	New	6.5.2	Default value: `10`
kpl-interval	New	6.5.2	Default value: `10`
retain-call-tmout	New	6.5.2	Default value: `15`
reroute-gap	New	6.1	Default value: `300`
	Removed	6.5.2	
expire-call-tmout New		6.1	Default value: `60`
	Removed	6.5.2	
kpl-tolerance	New	6.5.2	Default value: `3`
switch-port	New default value	6.5.3	New value: `0` Old value: No default value
rq-expire-tmout	New default value	7.0	New value:`5000` Old value: `1000`
	Modified	7.0.2	Default value changed from `10000` to `5000` in 7.0 and then changed back to `10000` in 7.0.2.
start-refid	New	7.0	Default value: `0`
expire-call-tmout	Modified	7.0.2	Default value changed from `0` to `60`.
hostname switch-host	Modified	7.0.2	Renamed from `switch-host` to `hostname`. You can still use the previous name as an alias.

Table 61: Option Modifications in T-Server for DataVoice Dharma (Continued)

Option Name	Type of Change	Occurred in Release #	Details
port switch-port	Modified	7.0.2	Rename from `switch-port` to `port`. You can still use the previous name as an alias.
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-timeout	New	7.0	Default value: Same as value in corresponding global option
no-answer-overflow	New	7.0	No default value
no-answer-action	New	7.0	Default value: `none`

T-Server for Digitro AXS/20

Table 62 shows the modifications made to switch-specific options for T-Server for Digitro AXS/20 when migrating to its latest release.

Table 62: Option Modifications in T-Server for Digitro AXS/20

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
emulate-login	New	7.5	
emulated-login-state	New	7.5	
agent-group	New	7.5	
sync-emu-agent	New	7.5	
untimed-wrap-up-value	New	7.5	
backwards-compat-acw-behavior	New	7.5	
override-switch-acw	New	7.5	
accept-dn-type	New	7.5	
default-dn-type	New	7.5	
dn-del-mode	New	7.5	

Table 62: Option Modifications in T-Server for Digitro AXS/20 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
timed-cwk-in-idle timed-acw-in-idle	See Details	7.5	Renamed to `timed-acw-in-idle`. You can still use the old name as an alias.
cwk-in-idle-force-ready acw-in-idle-force-ready	See Details	7.5	Renamed to `acw-in-idle-force-ready`. You can still use the old name as an alias.
default-dialling-rule	New	7.5	
transit-call	New	7.5	
transit-request	New	7.5	
guard-transit-request	New	7.5	
Application-Level Options > SwitchSpecificType Section (New in 7.5)			
extension	New	7.5	
Application-Level Options > mk-feature-invoke-rules Section (New in 7.5)			
rule-*n*	New	7.5	
Application-Level Options > dialling-plan-rules Section (New in 7.5)			
ext-rule-*n*	New	7.5	
int-rule-*n*	New	7.5	
Application-Level Options > Link-Control Section			
reg-silent	New	7.5	
reg-delay	New	7.5	

T-Server for Ericsson MD110

Table 63 shows the modifications made to switch-specific options for T-Server for Ericsson MD110 when migrating to its latest release.

Table 63: Option Modifications for T-Server for Ericsson MD110

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
switch-domain-check	New	6.1	
connid-update	New 6	.1	
	Removed	8.0	
call-expire-time	New valid values		New values: `150-800`
	Removed	7.1	Replaced with `expire-call-tout` in the CTI-Link section.
call-cleanup-interval	Removed	7.1	Replaced with `expire-call-tout` in the CTI-Link section.
wrapup-timeout	New valid values		New upper limit: `86400000`
	Removed	7.1	Replaced with `wrap-up-time`.
transfer-emulation	New	6.5.1	
	New default value	7.0	New default value: `true`
	Removed 7	.0.2	
device-snapshot-interval	See Details		New units: seconds Old units: milliseconds
	Removed	7.1	Replaced with `expire-call-tout` in the CTI-Link section.
is-consult-outbound	New default value	6.5.3	New value: `false` Old value: true
	See Details	6.5.3	Functionality has changed.
	Removed	7.0	

Table 63: Option Modifications for T-Server for Ericsson MD110 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
acd-login	New	6.5.3	
	Removed	8.0	
analog-transfer	New	6.5.3	
force-snapshot-interval	New	6.5.2	
dest-event-tout	New 6.5	.1	
	New default value	6.5.3	New value: `1`
	Removed	7.1	
route-request-attempt route-request-attempts	Modified	7.0	Renamed from `route-request-attempts` to `route-request-attempt`. You can still use the old name as an alias. Lower limit of valid values changed to `0`. Default value changed to `0` in 6.5.3.
adn-login ADN-login	Modified	7.0	Renamed from `ADN-login` to `adn-login`. You can still use the old name as an alias. Functionality changed in 6.5.3.
route-consult-call route_consult_call	Modified	7.0	Renamed from `route_consult_call` to `route-consult-call`. You can still use the old name as an alias.
	New default value	7.1	Default value changed to `true`.
ext-routing-min-digits	New valid values		New lower limit: `0`
use-makecall-login	New	7.0	
block-failed-dn-tout	New	7.0	
force-pbx-ag-state	New	7.0	
acw-predict-timeout	New	7.0	
	Removed	7.1	Functionality is provided by new libraries.

Table 63: Option Modifications for T-Server for Ericsson MD110 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
login-code	New	7.0	Added to documentation
call-rq-gap	New	7.0	
	See Details	7.1	Moved from `TServer` section to the CTI-Link section.
min-route-dly	New	7.0.2	
redistr-dly	New	7.0.2	
ext-xfer-min-digits	New	7.0.2	
vto-onhook-delay	New	7.0.2	
log-level	Removed	7.1	
service-busy-attempt	Removed	7.1	
inbound-bsns-calls	New	7.1	
outbound-bsns-calls	New	7.1	
legal-guard-time	New	7.1	
wrap-up-time	New	7.1	
timed-cwk-in-idle timed-acw-in-idle	New	7.1	
	See Details	7.5	Renamed to `timed-acw-in-idle`. You can still use the old name as an alias.
cwk-in-idle-force-ready	New	7.1	
	See Details	7.5	Renamed to `acw-in-idle-force-ready`. You can still use the old name as an alias.
agent-strict-id	New	7.1	
	New value added	8.0	New value `passwd` added.
inherit-bsns-type	New	7.1	
unknown-bsns-calls	New	7.1	
internal-bsns-calls	New	7.1	

Table 63: Option Modifications for T-Server for Ericsson MD110 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
notrdy-bsns-cl-force-rdy	New	7.1	
	Removed	7.5	
unknown-xfer-merge-udata	New 7	.1	
prd-dist-call-ans-time	New	7.1	
max-pred-req-delay	New	7.1	
extn-no-answer-timeout	New	7.1	
extn-no-answer-overflow	New	7.1	
posn-no-answer-timeout	New	7.1	
posn-no-answer-overflow	New	7.1	
agent-no-answer-timeout	New	7.1	
agent-no-answer-overflow	New	7.1	
agent-no-answer-action	New	7.1	
supervised-route-timeout	New	7.1	
consult-supervised-rt	New	7.1	
correct-connid	New	7.1	
correct-rqid	New	7.1	
convert-otherdn New		7.1	
dn-for-undesired-calls New		7.1	
callback-dn N	ew	7.1	
nas-private	New	7.2	
recall-no-answer-timeout	New	7.2	
accept-dn-type N	ew	7.2	
default-dn-type New		7.2	
dn-del-mode	New	7.2	
ext-redir-min-digits New		7.2	

Table 63: Option Modifications for T-Server for Ericsson MD110 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
emulate-login	New	7.5	
emulated-login-state	New	7.5	
agent-group	New	7.5	
sync-emu-agent	New	7.5	
untimed-wrap-up-value	New	7.5	
backwds-compat-acw-behavior	New	7.5	
override-switch-acw	New	7.5	
login-pincode	New	7.5	
reason-code	New	7.5	
consult-supervised-rt	See Details	7.5	Default value changed to `false`.
enable-retain-in-queue	New	7.2	
call-retain-in-queue	New	7.2	
expire-call-tout	New	7.1	
	See Details	7.5	Moved to `TServer` section from the `link-control` section.
	Removed 7.6		
retain-call-tout	New	7.1	
	See Details	7.5	Moved to `TServer` section from the `link-control` section.
clid-withheld-name	New	7.6	
queue-return-dly	New	7.6	
wrap-up-threshold	New	7.6	
nas-indication	New	7.6	
sync-emu-acw	New	8.0	
agent-only-private-calls	New	8.0	

Table 63: Option Modifications for T-Server for Ericsson MD110 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
agent-logout-on-unreg	New	8.0	
agent-logout-reassoc	New	8.0	
agent-emu-login-on-call	New	8.0	
call-type-by-dn	New	8.0	
releasing-party-report	New	8.0	
route-failure-alarm-high-wm	New	8.0	
route-failure-alarm-low-wm	New	8.0	
route-failure-alarm-period	New	8.0	
queue-cleanup	Removed	8.0	
force-pbx-ag-state	Removed	8.0	
route-request-attempt	Removed	8.0	
default-destination	Removed	8.0	
Application-Level Options > Application-Link Section			
app-link-version	New valid values	6.5.2	Value `4.0` now applies to BC11 as well as to BC10. Default value changed to `3.0.200` in 6.5.2.
max-outstanding-login-rq	New	7.0	
rq-tout link-rq-timeout	Modified	7.0	Renamed from `link-rq-timeout` to `rq-tout`. You can still use the old name as an alias.
	Removed	7.1	Replaced with `rq-expire-tmout` in the `link-control` section.

Table 63: Option Modifications for T-Server for Ericsson MD110 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
rd-dly link-rq-delay	New valid values		Default value is `200`. Lower limit of valid values is `10`.
	Modified	7.0	Renamed from `link-rq-delay` to `rq-dly`. You can still use the old name as an alias.
	Removed	7.1	Replaced with `rq-gap` in the `link-control` section.
max-outstanding-dev-rq link-max-outstanding-device-rq	Modified	7.0	Renamed from `link-max-outstanding-device-rq to max-outstanding-dev-rq`. You can still use the old name as an alias.
max-outstanding-rq link-max-outstanding-rq	Modified	7.0	Renamed from `link-max-outstanding-rq to max-outstanding-rq`. You can still use the old name as an alias.
	Modified	7.0.2	Default value changed from `8` to `4`.
	Modified	7.1	Default value changed to `16`.
	Removed	7.1	Replaced with `max-outstanding` in the `link-control` section.
max-rq-rate link-max-rq-rate	Modified	7.0	Renamed from `link-max-rq-rate to max-rq-rate`. You can still use the old name as an alias.
	Removed 7.1		
Application-Level Options > Reason-code-end Section (new in 7.5)			
absence-0 ... absence-9	New	7.5	
Application-Level Options > link-control Section (new in 7.1) The section name changed from the CTI-Link section to the `link-control` section for 7.1.			
CTI-Link Section	See Details	7.1	Renamed to `link-control`.
protocol	New default value	6.5.3	New value: `tcp` Old value: No default value
	Removed	7.1	
hostname	New	6.1	

Table 63: Option Modifications for T-Server for Ericsson MD110 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
port	New	6.1	
ha-sync-dly-lnk-conn	New	7.1	
rq-expire-tout	New	7.1	Replaces `rq-tout` from the Application-Link section.
restart-period	New	7.1	
reg-interval	New	7.1	
kpl-interval	New	7.1	
kpl-tolerance	New	7.1	
restart-cleanup-limit	New	7.1	
restart-cleanup-dly	New	7.1	
quiet-cleanup	New	7.1	
quiet-startup	New	7.1	
call-max-outstanding	New	7.1	
max-outstanding	New	7.1	Replaces `max-outstanding-rq` from the Application-Link section.
call-rq-gap	See Details	7.1	Moved from the `TServer` section.
rq-gap	New	7.1	
reg-delay	New	7.2	
reg-silent	See Details	7.5	Default value change to `false`.
kpl-loss-rate	New	7.6	
link-alarm-high	New	8.0	
link-alarm-low	New	8.0	
use-link-bandwidth	New	8.0	
rq-conflict-check	New	8.0	
device-rq-gap	New	8.0	
call-max-outstanding	Removed	8.0	

Table 63: Option Modifications for T-Server for Ericsson MD110 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > SwitchSpecificType Section (new in 7.2)			
extension	New	7.2	
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-timeout	New	7.0	
no-answer-overflow	New	7.0	
no-answer-action	New	7.0	
dn-for-undesired-calls New		7.1	
rq-gap	New	8.0	

T-Server for Fujitsu F9600

Table 64 shows the modifications made to switch-specific options for T-Server for Fujitsu F9600, when migrating to its latest release.

Table 64: Option Modifications in T-Server for Fujitsu F9600

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
transfer-delay	New	6.5.3	
notrdy-bsns-cl-force-rdy	New	7.0	
max-pred-req-delay	New	7.0	
extn-no-answer-timeout	New	7.0	
extn-no-answer-overflow	New	7.0	
posn-no-answer-timeout	New	7.0	
posn-no-answer-overflow	New	7.0	
supervised-route-timeout	New	7.0	
acw-predict-delay	New	7.0	
agent-no-answer-timeout	Modified	7.0	

Table 64: Option Modifications in T-Server for Fujitsu F9600 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
agent-no-answer-overflow	Modified	7.0	
agent-no-answer-action	Modified	7.0	
inherit-bsns-type	New	7.0.2	
Application-Level Options > CTI-Link Section			
rq-gap	New default value	7.0	New value: `0` Old value: `10`
reg-interval	New	7.0	
hostname host	Modified	7.0.2	Renamed from `host` to `hostname` in 7.0.2. You can still use the previous name as an alias.
use-native-routing use-csta-routing	Modified	7.0.2	Renamed from `use-csta-routing to use-native-routing`. You can still use the previous name as an alias.
call-rq-gap	New	7.0.2	
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-timeout	New	7.0	
no-answer-overflow	New	7.0	
no-answer-action	New	7.0	

T-Server for EADS Intecom M6880

Prior to release 7.0, this product was known as T-Server for Intecom E and prior to that as T-Server for Intecom E and PointSpan.

Table 65 shows the modifications made to switch-specific options for T-Server for EADS Intecom M6880 when migrating to its latest release.

Table 65: Option Modifications in T-Server for EADS Intecom M6880

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
simulate-request-after-login	New	6.5.2	
arc-timeout	New	6.5.2	
outcall-req-timeout	New	6.5.2	
ic-kpl-trace New		6.5.3	
	Removed	8.0	Replaced with `print-heartbeat`.
print-heartbeat	New	8.0	
use-oaitk	Removed	6.5.3	
use-db-agent-state	New	6.5.3	
default-user-group	New	6.5.3	
sw-answer-detect-time New	valid value	6.5.3	New valid value: A string value in the format described in “Timeout Value Format” on page 425. Old value: Any integer
hw-answer-detect-time New	valid value	6.5.3	New valid value: A string value in the format described in “Timeout Value Format” on page 425. Old value: Any integer
max-call-queue-time New	valid value	6.5.3	New valid value: A string value in the format described in “Timeout Value Format” on page 425. Old value: Any integer

Table 65: Option Modifications in T-Server for EADS Intecom M6880 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
ring-no-answer-time	New valid value	6.5.3	New valid value: A string value in the format described in "Timeout Value Format" on page 425. Old value: Any integer
min-call-answer-time New	valid value	6.5.3	New valid value: A string value in the format described in "Timeout Value Format" on page 425. Old value: Any integer
rec-human-speech-detect New	valid value	6.5.3	
max-resource-wait-time	New valid value	6.5.3	
second-call-as-consult	New	7.2	
distrib-hidden-cims	New	7.5	
on-hook-after-parking	New	7.6	
atdc-no-digits	New	8.0	
atdc-do-not-ignore	New	8.0	
report-release-on-atdc-as	New	8.0	
req-retrieve-conf-support	New	8.0	
station-stat-timeout	New	8.0	
support-atdc	New	8.0	
create-addr-on-register	New	8.0	
ic-kpl-trace	Obsolete	8.0	Use the new `print-heartbeat` configuration option instead.
print-heartbeat	New	8.0	Replaces the `ic-kpl-trace` option.
reject-xfer-req-to-busy	New	8.1	
support-switch-ps52	New	8.0	
switch-ps52-req-delay	New	8.0	

Table 65: Option Modifications in T-Server for EADS Intecom M6880 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
use-xfer-revert-optimization	New	8.1	
Application-Level Options > CTI-Link Section[a]			
app-id	Obsolete	6.5.3	
app-name	Obsolete	6.5.3	
app-password	Obsolete	6.5.3	
hostname	New	7.0.2	
protocol	New	7.0.2	
port	New 7.0.2		

a. Prior to release 6.5, T-Server connected to the Intecom switch using the OAI driver and the CTI-Link section with the options for that connection. Starting with release 6.5, T-Server connects to the switch directly, and the standard options for TCP connections are used.

T-Server for EADS Telecom M6500 Succession

Table 66 shows the modifications made to switch-specific options for the T-Server for EADS Telecom M6500 Succession, when migrating to its latest release.

Table 66: Option Modifications in T-Server for EADS Telecom M6500 Succession

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
link-*n*-name	Modified		Replaced by link-n-tcp.
aport-onhook-delay	New	6.5.2	
link-n-tcp	Modified	6.5.3	Default value changed to `link-tcp`.
pbx-monitoring PBX-monitoring	Modified	7.0	Renamed from `PBX-monitoring` to `pbx-monitoring`. You can still use the previous name as an alias.
	Obsolete	7.5	

Table 66: Option Modifications in T-Server for EADS Telecom M6500 Succession (Continued)

Option Name	Type of Change	Occurred in Release #	Details
pbx-version PBX-version	Modified	7.0	Renamed from `PBX-version` to `pbx-version`. You can still use the previous name as an alias.
	Obsolete	7.5	
posn-no-answer-overflow	New	7.0	
posn-no-answer-timeout	New	7.0	
extn-no-answer-overflow	New	7.0	
extn-no-answer-timeout	New	7.0	
agent-no-answer-action	New	7.0	
agent-no-answer-overflow	New	7.0	
agent-no-answer-timeout	New	7.0	
expire-call-tout	New	7.5	
unknown-xfer-merge-udata	New	7.5	
agent-group	New	7.5	
agent-strict-id	New	7.5	
legal-guard-time	New	7.5	
untimed-wrap-up-value	New	7.5	
inbound-bsns-calls	New	7.5	
outbound-bsns-calls	New	7.5	
internal-bsns-calls	New	7.5	
unknown-bsns-calls	New	7.5	
timed-acw-in-idle	New	7.5	
acw-in-idle-force-ready	New	7.5	
inherit-bsns-type	New	7.5	
backwds-compat-acw-behavior	New	7.5	

Table 66: Option Modifications in T-Server for EADS Telecom M6500 Succession (Continued)

Option Name	Type of Change	Occurred in Release #	Details
override-switch-acw	New	7.5	
nas-private	New	7.5	
recall-no-answer-timeout	New	7.5	
prd-dist-call-ans-time	New	7.5	
max-pred-req-delay	New	7.5	
accept-dn-type	New	7.5	
default-dn-type	New	7.5	
dn-del-mode	New	7.5	
emulate-login	New	7.5	
emulated-login-state	New	7.5	
wrap-up-time	New	7.5	
sync-emu-agent	New	7.5	
retain-call-tout	New	7.5	
auto-xfer-dly	New	7.5	
correct-connid	New	7.5	
correct-rqid	New	7.5	
convert-otherdn	New	7.5	
dn-for-undesired-calls	New	7.5	
supervised-route-timeout	New	7.5	
consult-supervised-rt	New	7.5	
password-separator	Obsolete	7.5	
max-bad-rtreq	Obsolete	7.5	
call-expire-time	Obsolete	7.5	
aport-onhook-delay	Obsolete	7.5	

Table 66: Option Modifications in T-Server for EADS Telecom M6500 Succession (Continued)

Option Name	Type of Change	Occurred in Release #	Details
call-report-rqmembers	Removed	7.5	
Application-Level Options > Log-CTRL Section (Removed in 7.5)			
log-con-conf	Removed	7.5	
Application-Level Options > Channel-Conf Section (Removed in 7.5)			
channel-max-host-rq	Removed	7.5	
channel-max-device-rq	Removed	7.5	
channel-rq-gap	Removed	7.5	
channel-rq-timeout	Removed	7.5	
number-of-links	Removed	7.5	
link-1-tcp	Removed	7.5	
Application-Level Options > link-control Section (New in 7.5)			
reg-delay	New	7.5	
reg-silent	New	7.5	
hostname	New	7.5	
port	New	7.5	
max-outstanding	New	7.5	
rq-gap	New	7.5	
restart-period	New	7.5	
restart-cleanup-limit	New	7.5	
restart-cleanup-dly	New	7.5	
quiet-cleanup	New	7.5	
quiet-startup	New	7.5	
rq-expire-tout	New	7.5	
call-rq-gap	New	7.5	

Table 66: Option Modifications in T-Server for EADS Telecom M6500 Succession (Continued)

Option Name	Type of Change	Occurred in Release #	Details
ha-sync-dly-lnk-conn	New	7.5	
Application-Level Options > Link-TCP Section (Removed in 7.5)			
iface	Modified	6.5.3	Default value changed to `TCP`.
	Removed	7.5	
iface-polltime	Modified	6.5.3	Default value changed to `20`.
	Removed	7.5	
iface-rdelay	Removed	7.5	
iface-address	Removed	7.5	
iface-port	Removed	7.5	
iface-use-len	Removed	7.5	
iface-pheader-len	Removed	7.5	
iface-app-proto	Removed	7.5	
Application-Level Options > SwitchSpecificType Section (New in 7.5)			
extension	New	7.5	
routing-point	New	7.5	
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-timeout	New	7.0	
no-answer-overflow	New	7.0	
no-answer-action	New	7.0	

T-Server for Huawei C&C08

Table 67 shows the modifications made to switch-specific options for the T-Server for Huawei C&C08 when migrating to its latest release.

Table 67: Option Modifications in T-Server for Huawei C&C08

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
agent-no-answer-action	New	6.5.2	
	Modified	7.0	Functionality modified
agent-no-answer-overflow	New	6.5.2	
	Modified	7.0	Functionality modified
agent-no-answer-timeout	New	6.5.2	
	Modified	7.0	Functionality modified
posn-no-answer-overflow	New	7.0	
posn-no-answer-timeout	New 7.0		
extn-no-answer-overflow	New	7.0	
extn-no-answer-timeout	New 7.0		
outbound-bsns-calls	New	7.0	
inbound-bsns-calls	New 7.0		
Application-Level Options > CTI-Link Section			
reg-interval	Modified 6.5	.3	Default value changed to `0`.
hostname host	Modified	7.0	Name changed from `host` to `hostname`. You can still use the previous value as an alias.
expire-call-tmout	New	7.0.2	
call-rq-gap	New	7.0.2	
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-timeout	New	7.0	

Table 67: Option Modifications in T-Server for Huawei C&C08 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
no-answer-overflow	New	7.0	
no-answer-action	New	7.0	

T-Server for Meridian 1

Starting with release 7.1, the functionality of Meridian 1 and Symposium Call Center Server T-Servers are combined into one T-Server. See “T-Server for Nortel Communication Server 1000 with SCCS/MLS” on page 488.

T-Server for Mitel MiTAI

Starting with release 8.0, T-Server for Mitel SX-2000/MN-3300 has been renamed to T-Server for Mitel MiTAI.

Table 68 shows the modifications made to switch-specific options for the T-Server for Mitel MiTAI when migrating to its latest release.

Table 68: Option Modifications in T-Server for Mitel MiTAI

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
agent-strict-id	New	6.5.1	
cwk-in-idle-force-ready	New	6.5.1	
	Removed	7.2	
inbound-bsns-calls	New	6.5.1	
legal-guard-time	New	6.5.1	
outbound-bsns-calls	New	6.5.1	
timed-cwk-in-idle	New	6.5.1	
	Removed	7.2	
wrap-up-time	New	6.5.1	
agent-emu-sync	New	6.5.2	
	Removed	7.2	

Table 68: Option Modifications in T-Server for Mitel MiTAI (Continued)

Option Name	Type of Change	Occurred in Release #	Details
agent-no-answer-overflow	New 6.5.2		
	Modified	7.0	Functionality modified
agent-no-answer-timeout	New 6.5.2		
	Modified 7.0		Functionality modified
prd-dist-call-ans-time	New	6.5.2	
shutdown-limit	Removed	6.5.2	
extn-no-answer-overflow	New	7.0	
extn-no-answer-timeout	New 7.0		
max-pred-req-delay	New	7.0	
notrdy-bsns-cl-force-rdy	New	7.0	
	Removed	7.2	
	New	8.0	Reinstated in 8.0.
posn-no-answer-overflow	New	7.0	
posn-no-answer-timeout	New 7.0		
supervised-route-timeout	New 7.0		
	Removed	8.1	
inherit-bsns-type	New	7.0.2	
accept-dn-type	New	7.2	
accode-privateservice	New	7.2	
accode-data	New	7.2	
accode-index	New	7.2	
	Removed	8.0	
accode-name	New	7.2	
acw-in-idle-force-ready	See Details	7.2	Renamed from `cwk-in-idle-force-ready`.

Table 68: Option Modifications in T-Server for Mitel MiTAI (Continued)

Option Name	Type of Change	Occurred in Release #	Details
agent-group	New	7.2	
agent-strict-id	New	7.2	
backwds-compat-acw-behavior	New	7.2	
convert-otherdn	New	7.2	
callback-dn	New	7.2	
correct-connid	New	7.2	
correct-rqid	New	7.2	
default-dn-type	New	7.2	
divert-tout	New	7.2	
dn-del-mode	New	7.2	
	Removed	7.2	Removed in 7.2.001.00.
	New	8.0	Reinstated in 8.0.
	Modified	8.1	New default value: `idle` Old default value: `never`
dn-for-undesired-calls	New	7.2	
emulate-login	New	7.2	
emulated-login-state	New	7.2	
expire-call-tout	See Details	7.2	Renamed from `expire-call-tmout` and moved from CTI-Link section.
	Removed	8.0	
internal-bsns-calls	New	7.2	
intrude-pty-change New		7.2	
mitai-log-path New		7.2	
nas-private New		7.2	
override-switch-acw	New	7.2	

Table 68: Option Modifications in T-Server for Mitel MiTAI (Continued)

Option Name	Type of Change	Occurred in Release #	Details
recall-no-answer-timeout	New	7.2	
remote-xfer-report	New	7.2	
retain-call-tout	See Details	7.2	Renamed from `retain-call-tmout` and moved from CTI-Link section.
single-cpu-affinity New		7.2	
	Restricted	8.0	
sync-emu-agent	New	7.2	
timed-acw-in-idle	See Details	7.2	Renamed from `timed-cwk-in-idle`.
unknown-bsns-calls	New	7.2	
unknown-xfer-merge-udata	New	7.2	
untimed-wrap-up-value	New	7.2	
agent-emu-login-on-call	New	8.0	
agent-logout-on-unreg	New	8.0	
agent-logout-reassoc	New	8.0	
agent-only-private-calls	New	8.0	
call-type-by-dn	New	8.0	
call-type-rules	New	8.0	
legal-guard-reason	New	8.0	
nas-indication	New	8.0	
releasing-party-report	New	8.0	
route-failure-alarm-high-wm	New	8.0	
route-failure-alarm-low-wm	New	8.0	
route-failure-alarm-period	New	8.0	
sync-emu-acw	New	8.0	
wrap-up-threshold	New	8.0	

Table 68: Option Modifications in T-Server for Mitel MiTAI (Continued)

Option Name	Type of Change	Occurred in Release #	Details
agent-fwd-host	New	8.1	
bsns-call-dev-types	New	8.1	
monitor-agents	New	8.1	
Application-Level Options > Call-Type Rules Section (new in 8.0)			
rule <n>, where n=1-N	New	8.0	
Application-Level Options > SwitchSpecificType Section (new in 7.2)			
routing-point	New	7.2	
extension	New	7.2	
routing-queue	New	8.0	
Application-Level Options > CTI-Link Section			
kpl-tolerance	New 6.5.2		
	Removed	7.0.2	
route-gap	Removed	6.5.2	
poll-interval	Modified	6.5.3	Default value changed from `33` to `100`.
call-rq-gap	New	7.0	
	Modified	7.0.2	Default value changed from: • `300` to `1000` in 7.0.200.10 • `1000` to `250` in 7.0.201.05
hostname gateway	Modified	7.0	Renamed from `gateway` to `hostname`. You can still use the old name for backward compatibility.
mitai-logfile-path log-file-path	Modified	7.0	Renamed from `log-file-path` to `mitai-logfile-path`. You can still use the old name for backward compatibility.
	Removed	7.2	

Table 68: Option Modifications in T-Server for Mitel MiTAI (Continued)

Option Name	Type of Change	Occurred in Release #	Details
mitai-log-severity log-severity	Modified	7.0	Renamed from `log-severity` to `mitai-log-severity`. You can still use the old name for backward compatibility.
	Removed	7.2	
mitai-logfile-size logfile-size	Modified	7.0	Renamed from `log-file-size` to `mitai-logfile-size`. You can still use the old name for backward compatibility.
	Removed	7.2	
mitai-runtime-dir runtime-dir	Modified	7.0	Renamed from `runtime-dir` to `mitai-runtime-dir`. You can still use the old name for backward compatibility.
	Removed	7.2	
mitai-service service	Modified	7.0	Renamed from `service` to `mitai-service`. You can still use the old name for backward compatibility.
	Removed	7.2	
mitai-timeout timeout	Modified	7.0	Renamed from `timeout` to `mitai-timeout`. You can still use the old name for backward compatibility.
	Removed	7.2	
mitai-trunk-correction trunk-correction	Modified	7.0	Renamed from `trunk-connection` to `mitai-trunk-connection`. You can still use the old name for backward compatibility.
	Removed	7.2	
backup-mode	Removed	7.0.2	
hci-reset	Removed	7.0.2	
max-outstanding	Modified	7.0.2	Default value changed from `3` to `255`.
	Modified	8.0	Default value changed from `255` to `8`.
ha-sync-dly-lnk-conn	New	7.2	
quiet-cleanup	New	7.2	

Table 68: Option Modifications in T-Server for Mitel MiTAI (Continued)

Option Name	Type of Change	Occurred in Release #	Details
quiet-startup New		7.2	
reg-delay New		7.2	
reg-silent	New	7.2	
restart-cleanup-dly	New	7.2	
restart-cleanup-limit	New	7.2	
rq-expire-tmout	See Details	7.2	Renamed to `rq-expire-tout`.
unregister	Removed	7.2	
device-rq-gap	New	8.0	
find-by-callid	New	8.0	
link-alarm-high	New	8.0	
link-alarm-low	New	8.0	
rq-conflict-check	New	8.0	
use-link-bandwidth	New	8.0	
local-ip-address	New	8.1	
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-action	New	7.0	
no-answer-overflow	New	7.0	
no-answer-timeout	New	7.0	
bsns-call-type	New	8.0	
fwd-host	New	8.1	
monitor	New	8.1	

T-Server for Mitel SX-2000/MN-3300

Starting with release 8.0, T-Server for Mitel SX-2000/MN-3300 has been renamed to T-Server for Mitel MiTAI. See “T-Server for Mitel MiTAI” on page 479.

T-Server for NEC NEAX/APEX

Table 69 shows the modifications made to switch-specific options for T-Server for NEC NEAX/APEX when migrating to its latest release.

Table 69: Option Modifications in T-Server for NEC NEAX/APEX

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
consult-user-data	New	6.5.0	
trace-level	New default value	6.5.2	New value: `level 2` Old value: `level 1`
trace-modules	New default values	6.5.2	New values: `+all, -hash` Old value: `all`
login-mode	New default value	6.5.2	New value: `2` Old value: `0`
enable-alive-message	New default value	6.5.2	New value: `true` Old value: `false`
answer-mode	New default value	6.5.2	New value: `1` Old value: `3`
max-calls	New default value	6.5.2	New value: `2003` Old value: `523`
max-dns	New default value	6.5.2	New values: `+all, -hash` Old value: `all`
suppress-trunk-events	New default value	6.5.2	New value: `false` Old value: `true`
transfer-allow	New	6.5.2	
tenant-number	See Details	6.5.2	The option description has been updated.
tenant-number-list	New	6.5.2	
software-agent-state	New	6.5.3	
fix-double-hold	New	6.5.3	
no-response-timeout	New	7.0	

Table 69: Option Modifications in T-Server for NEC NEAX/APEX (Continued)

Option Name	Type of Change	Occurred in Release #	Details
make-call-agent-ppn	New	6.5.1	
message-record-size	Obsolete	7.0	
message-record-timeout	Obsolete	7.0	
message-record-increment	Obsolete	7.0	
link-up-delay	Obsolete	7.0	
merge-consult-data	Obsolete	7.0	Use `consult-user-data` instead.
scf10-answer-type	New 7.1		
fix-supervisor-release	New	7.1	
enable-query-addr-status	New	7.1	
enable-ssc	New	7.1	
number-of-links	New	7.1	
link-type	New	7.1	
snd-scf2-delay	New 7.2		
enable-query-dnd-status	New	7.2	
enable-query-fwd-status	New	7.2	
enable-query-mwl-status	New	7.2	
monitor-delay	Obsolete	7.6	
link-delay	Obsolete	7.6	
register-retries	Obsolete	7.6	
register-retry-delay	Obsolete	7.6	
oai-hold	See Details	7.6	The default value was changed to `true`.
monitor-call-using	New	8.0	
simulate-established	Obsolete	8.0	
simulate-established-delay	Obsolete	8.0	

Table 69: Option Modifications in T-Server for NEC NEAX/APEX (Continued)

Option Name	Type of Change	Occurred in Release #	Details
transfer-release-delay	Modified	8.0	T-Server now requests a switch to release a transferring party.
aarq-logical-port	New	8.1	
enable-infolink-heartbeat	New	8.1	
trigger-agent-state-response-by	New	8.1	
Unlicensed DN Section - Removed in 7.5			
<n>	Obsolete	7.5	See the *T-Server Deployment Guide* for instructions on configuring unlicensed DNs.

T-Server for Nortel Communication Server 1000 with SCCS/MLS

Starting with release 7.1, the functionality of Meridian 1 and Symposium Call Center Server T-Servers are combined into one T-Server. The current name is T-Server for Nortel Communication Server 1000 with SCCS/MLS.

Table 70 shows the modifications made to switch-specific options for the T-Server for Nortel Communication Server 1000 with SCCS/MLS when migrating to its latest release.

Table 70: Option Modifications in T-Server for T-Server for Nortel Communication Server 1000 with SCCS/MLS

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
link-configuration	New	6.0	
mlink-application-id mlink-customer-number mlink-host-id mlink-poll-interval	Removed	6.0	See replacement options listed in the "CTI-Link Section."
max-attempts-to-register	New	6.5.2	
ev-party-changed-for-cdn	New default value	6.5.2	New value: `on` Old value: `off`

Table 70: Option Modifications in T-Server for T-Server for Nortel Communication Server 1000 with SCCS/MLS (Continued)

Option Name	Type of Change	Occurred in Release #	Details
cdn-cabq-timeout	New	6.5.3	
link-type	New	6.5.3	Note: Do not set this option.
	New default value	7.1	New default value: `symposium` Old value: `meridian`
agent-compat-flags	New	7.0	
	Removed	7.1	
update-login-on-err	New	7.1	
acw-by-request-only	New	7.1	
make-call-manner	New	7.1	
response-timeout	New	7.1	
	Modified	7.6	Option description is updated.
out-of-service-retry-interval	New	7.1	
scu-emerg-type	New default value	7.1	New default value: `0xc`
no-call-disconnect	New default value	7.1	Default changed to `0` (all).
set-dnis-from-dest	Modified	7.1	Range of possible values reduced to `on` or `off` (default).
delete-external-call-timeout delete-call-timeout	Modified	7.1	Name changed from `delete-call-timeout` to `delete-external-call-timeout`. Default now `30` seconds.
orig-callid-xfer-conf-init	See Details	7.1	Renamed from `orig-call-xfer-init` to `orig-callid-xfer-conf-init`.
link-configuration	Removed	7.1	
internal-addr-length	Removed	7.1	
complete-xfer-on-disc	Removed	7.1	
attach-cdn-info	Removed	7.1	

Table 70: Option Modifications in T-Server for T-Server for Nortel Communication Server 1000 with SCCS/MLS (Continued)

Option Name	Type of Change	Occurred in Release #	Details
no-callid-release	Removed	7.1	
wrong-callid-release	Removed	7.1	
rr-call-delay	Removed	7.1	
rls-ext-consult	Removed	7.1	
delete-sc-offh	Removed	7.1	
scan-call-interval	Removed	7.1	
support-networked-call	Removed	7.1	
accept-multiple-ring	Removed	7.1	
normalize-on-scr	Removed	7.1	
normalize-on-rr	Removed	7.1	
dta-cleanup-orig-rr	Removed	7.1	
dta-cleanup-orig-scr	Removed	7.1	
dta-cleanup-orig-sca	Removed	7.1	
rls-scd-no-type	Removed	7.1	
support-tat	Removed	7.1	
ev-party-changed	Removed	7.1	
callpilot-dn-range	New	7.2	
enable-consult-swap	New	7.2	
uudata-attach-type	New	7.2	
routing-state-timeout	New	7.5	
default-agent-id-is-position	New	7.5	
soft-tacw-support	New	7.5	
soft-wrap-up-time	New	7.5	
terminal-id	New	7.5	

Table 70: Option Modifications in T-Server for T-Server for Nortel Communication Server 1000 with SCCS/MLS (Continued)

Option Name	Type of Change	Occurred in Release #	Details
set-discovery	New	7.6	
create-addr-on-register	New	7.2	
rtp-info-password	New	7.6	
update-login-on-err	New	7.6	
dest-busy-codes	New	8.0	
dest-busy-invalid-num-codes	New	8.0	
soft-login-support	New	8.1	
Application-Level Options > CTI-Link Section			
mail-name	New location	6.0	New location: CTI-Link section.
application-id	New	6.0	Replaces: `mlink-application-id`.
customer-number	New	6.0	Replaces: `mlink-customer-number`.
host-id	New	6.0	Replaces: `mlink-host-id`.
poll-interval	New	6.0	Replaces: `mlink-poll-interval`.
protocol	New valid value	6.5.3	`tcp` is the only valid value.
version	Removed	7.0	
DN-Level Options > TServer section			
default-agent-id	New	7.5	
vtport-generate-hook-events	New	7.6	

T-Server for Nortel Communication Server 2000/2100

Prior to release 7.1, this product was known as T-Server for Nortel DMS-100.

Table 71 shows the modifications made to switch-specific options for T-Server for Nortel Communication Server 2000/2100 when migrating to its latest release.

Table 71: Option Modifications in T-Server for Nortel Communication Server 2000/2100

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
send-not-ready	Changes take effect	6.1	This option now supports dynamic changes.
	Removed	7.0.1	The functionality of these options is now available in the T-Server's default behavior.
use-query-dn	Changes take effect	6.1	This option now supports dynamic changes.
hex-dump	Changes take effect	6.1	This option now supports dynamic changes.
	Removed	7.6	
dn-query-info	Changes take effect	6.1	This option now supports dynamic changes.
	Removed	7.6	
unreg-dn-on-dms	Changes take effect	6.1	This option now supports dynamic changes.
	Removed	7.6	T-Server now uses a standard behavior to never disassociate a DN from the switch if the DN is in Configuration Manager. T-Server always disassociates a DN from the switch if the DN is not in Configuration Manager and no clients are registered for that DN.
send-agent-ready	Changes take effect	6.1	This option now supports dynamic changes.
	Removed	7.0.1	The functionality of these options is now available in the T-Server's default behavior.

Table 71: Option Modifications in T-Server for Nortel Communication Server 2000/2100 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
send-result-on-error	Changes take effect	6.1	This option now supports dynamic changes.
send-retrieved	Changes take effect	6.1	This option now supports dynamic changes.
orig-inbound-to-dnis	Changes take effect	6.1	This option now supports dynamic changes.
dms-upgrade-time	Changes take effect	6.1	This option now supports dynamic changes.
no-other-dn-for-external	Changes take effect	6.1	This option now supports dynamic changes.
	Removed	7.6	
nlinks	Removed	6.5.0	The value specified in the `nlinks` configuration option no longer supersedes the number of links specified in the `link-n-name` option. With the 6.5 T-Server, a connection is made to each instance of `link-n-name` present in the `tserver` configuration section.
max-call-time-primary	See Details	6.1	This option now supports dynamic changes.
	New valid value	6.5.0	New value: `0-900000`
	New default value	6.5.0	New value: `36000`
	Obsolete	7.1	
	Removed	7.6	

Table 71: Option Modifications in T-Server for Nortel Communication Server 2000/2100 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
max-call-time-backup	Changes take effect	6.1	This option now supports dynamic changes.
	New valid value	6.5.0	New value: `0-900000`
	New default value	6.5.0	New value: `1000`
	New default value	7.0.1 New	default value: `36000` Old default value: `1000`
	Obsolete	7.1	
	Removed	7.6	
call-progress	New	6.5.0	
call-exist-time	New valid values	6.5.0	New value: `0-900000`
	Changes take effect	6.1	This option now supports dynamic changes.
	Removed	7.6	
new-call-for-unknown-dest	New 6.5.0		
dial-plan-prefix	New	6.5.1	
	New valid values	6.5.2	New values: Any comma-delimited list of dialing prefixes (for example, `1, 9, 19`)
use-dial-plan	See Details	6.5.1	The option `set-call-type-with-dialing` now manages the call type in dialing, while `use-dial-plan` indicates the possibilities for T-Server of the values given in `dial-plan-prefix` for comparing some DN values.
set-call-type-with-dialing	New	6.5.1	
logon-hard-reset	New	6.5.2	Note: This option has a requirement of SCAI version 17 or later.

Table 71: Option Modifications in T-Server for Nortel Communication Server 2000/2100 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
use-supp-in-queued	New 6.	5.3	
unregister-mode unregister-delay unregister-interval	Removed	6.5.3	The `register-interval` option applies to both registration and unregistration of DNs.
register-interval	See Details	6.5.3	Now used for both registering and unregistering of addresses. Previously, `unregister-interval` was used for unregistering.
	Removed	7.6	The flow-control settings is used instead to control the flow of registration (and other) requests.
rp-xfer-mode	Removed	6.5.3	
retain-consult-data provide-orig-data	Removed	6.5.3	The common option `consult-user-data` should be used.
sync-addresses	New	7.0	
ha-heartbeat-period	New	7.0	
ha-heartbeat-timeout	New	7.0	
ha-heartbeat-failures	New	7.0	
appl-logon-already-ok	New	7.0.2	
send-answer-after-make	New	7.0.2	
agent-state-return-result	New 7.0.2		
noncontroller-released-digits	New	7.0.2	
	Modified	7.6	The default value was changed from `20` to `4`.
sync-agent-state-after-released	New 7.0.2		
	Removed	7.6	The agent state is now always synchronized after a call is released. Multilink issues that previously required this feature to sometimes be turned off have been resolved.

Table 71: Option Modifications in T-Server for Nortel Communication Server 2000/2100 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
change-dnis New		7.1	
	Removed	7.6	The attribute `DNIS`, once set for a call, now never needs to be changed. This is standard T-Server behavior required by some clients.
address-sync-timeout	New 7.1		
	Removed	7.6	The option `request-timeout` is now used for address queries.
error-on-agent-state	New 7.1		
flow-control-period	New	7.2	
flow-control-rate	New	7.2	
	Removed	8.0	
flow-control-warning	New	7.2	
mute-xfer-retry-delay	New	7.2	
mute-xfer-retries	New	7.2	
link-stop-delay	New	7.2	
continuity-test-fail-number	Modified	7.5	Option description is modified.
dual-links	New	7.5	
mute-xfer-retries	New	7.5	
mute-xfer-retry-delay	New	7.5	
dn-reset-timeout	New	7.5	
	Removed	7.6	The `request-timeout` option is used for each individual request in reset.
request-timeout	New	7.5	
	Modified	7.6	Valid values are now `1000` to `60000`.
link-restart-interval	New	7.5	
ncr-enabled	New	7.6	

Table 71: Option Modifications in T-Server for Nortel Communication Server 2000/2100 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
call-held-enabled	New	7.6	
call-delete-delay Removed		7.6	
external-mute-transfer-delay	Removed	7.6	The `mute-transfer-delay` option is now used for all consultation call types. (External and internal).
max-register-retries	New	7.6	
agent-no-answer-action	New	7.6	
agent-no-answer-overflow	New	7.6	
agent-no-answer-timeout	New	7.6	
create-addr-on-register	New	8.0	
soft-login-support	New	7.6	
soft-wrap-up-time	New	7.6	
link-alarm-high New		8.0	
relate-primary-supp-qrp	New	8.1	
Application-Level Options > CTI-Link Section			
pvc-channel	New	8.0	
DN-Level Options > TServer Section			
primary-qrp	New	8.1	

HA Proxy for Nortel Communication Server 2000/2100

Prior to release 7.1, this product was known as HA Proxy for Nortel DMS-100.

Table 72 shows the modifications made to switch-specific options for the HA Proxy for Nortel Communication Server 2000/2100 when migrating to its latest release.

Table 72: Option Modifications in HA Proxy for Nortel Communication Server 2000/2100

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > HA Proxy Section			
ha-heartbeat-period	New	7.0	
ha-heartbeat-timeout	New	7.0	
ha-heartbeat-failures	New	7.0	
restart-delay	Modified	7.5	The default value of `0` was changed to `2` to correct an error in documentation.

T-Server for Philips Sopho iS3000

Table 73 shows the modifications made to switch-specific options for T-Server for Philips Sopho iS3000 when migrating to its latest release.

Table 73: Option Modifications in T-Server for Philips Sopho iS3000

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
wrap-up-time	New	6.5.1	
legal-guard-time	New	6.5.1	
timed-cwk-in-idle	New	6.5.1	
cwk-in-idle-force-ready	New	6.5.1	
inbound-bsns-calls	New	6.5.1	
outbound-bsns-calls	New	6.5.1	
agent-no-answer-timeout	New	6.5.2	
	Modified	7.0	

Table 73: Option Modifications in T-Server for Philips Sopho iS3000 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
agent-no-answer-overflow	New	6.5.2	
	Modified	7.0	
agent-no-answer-action	New	6.5.2	
	Modified	7.0	
prd-dist-ans-call-time	New	6.5.2	
	New default value	6.5.3	New value: `0`
supervised-route-timeout	New	6.5.2	
agent-strict-id	New	6.5.2	
consult-supervised-rt	New	7.0	
extn-no-answer-overflow	New	7.0	
extn-no-answer-timeout	New	7.0	
max-pred-req-delay	New	7.0	
notrdy-bsns-cl-force-rdy	New	7.0	
posn-no-answer-overflow	New	7.0	
posn-no-answer-timeout	New	7.0	
inherit-bsns-type	New	7.0.2	
Application-Level Options > CTI-Link Section			
kpl-interval	New	6.1.0	
answer-code	New	6.5.2	
reg-interval	New	6.5.2	
kpl-tolerance	New	6.5.2	
shutdown-limit	Removed	6.5.2	
reroute-gap	Removed	6.5.2	
rq-expire-timeout	New default value		New value: `10000`

Table 73: Option Modifications in T-Server for Philips Sopho iS3000 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
restart-period	New default value		New value: `30`
max-outstanding	New default value		New value: `8`
backup-mode	New	6.5.3	Default value: `direct`
protocol	Removed	6.5.3	
hostname link-host	Modified	7.0	Named changed to `hostname` in 7.0. You can still use the old name as an alias.
port link-port	Modified	7.0	Name changed to `port` in 7.0. You can still use the old name as an alias. Default value changed from none to `2555` in 7.0.
rq-gap	New	7.0.2	
call-rq-gap	New	7.0.2	
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-timeout	New	7.0	
no-answer-overflow	New	7.0	
no-answer-action	New	7.0	

HA Proxy for Philips Sopho iS3000

Table 74 shows the modifications to options for the HA Proxy for Philips Sopho iS3000, when migrating to its latest release.

Table 74: Option Modifications in HA Proxy for Philips Sopho iS3000

Option Name	Type of Change	Occurred in Release #	Details
host link-host	Renamed	6.5.2	Old value: `host` New value: `link-host`
port link-port	Renamed	6.5.2	Old value: `port` New value: `link-port`

Table 74: Option Modifications in HA Proxy for Philips Sopho iS3000 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
switch	Removed	6.5.2	
timeout	New	6.5.2	
keep-connection	New 6.5.2		
shutdown-limit	New	6.5.2	

T-Server for Siemens Hicom 300/HiPath 4000 CSTA I

Prior to release 6.5.3, this product was known as T-Server for Hicom 300.

Table 75 shows the modifications made to switch-specific options for T-Server for Siemens Hicom 300/HiPath 4000 CSTA I, when migrating to its latest release.

Table 75: Option Modifications in T-Server for Siemens Hicom 300/HiPath 4000 CSTA I

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
time-out	Removed	6.5	Replaced with `call-delete-timeout`
	New default value	6.5	Old value: `1800`
call-delete-timeout	New default value	6.5	New value: `60`
	Removed	7.1	Replaced with `retain-call-tout` and `expire-call-tout`.
use-predefined-keys	New	6.5	Supports the inclusion of predefined keys in the user data.
hicom300E-version	New default value		Removed
host-routing	New	6.5.2	
	New default value	6.5.3	New value: `false` Old value: `true`
	See Details	6.5.3	Functionality modified.

Table 75: Option Modifications in T-Server for Siemens Hicom 300/HiPath 4000 CSTA I (Continued)

Option Name	Type of Change	Occurred in Release #	Details
link-*n*-name	New default value	6.5	New value: `link-tcp`
	Removed	7.1	
uui-as-text	New 6.5.2		
	New default value and valid values	6.5.3	New value: `false` New valid values: `true` and `false` Old valid values: `text` and `binary`
agent-dev-check	New 6.5.3		
	Removed 7.	1	
late-release	New	6.5.3	
request-timeout	New	6.5.2	
	New default value	6.5.3	New value: `10000`
	Removed	7.1	Replaced with `rq-expire-tout`.
agent-clean-login	New	7.0	
transfer-timer xfer-timer	New	7.0	
	Modified	7.1	Renamed to `transfer-timer`. Old name still available as an alias.
soft-login-support	New	7.0	
	Removed	7.5	
soft-wrap-up-time wrap-up-time	New	7.0	
	Renamed	7.1	Replaced with `wrapup-time`.
divert-call-srvc-tout divert-call-service-timeout	Modified	7.0.2	Name changed from `divert-call-service-timeout` to `divert-call-srvc-tout`. Old name still available as an alias.
	Removed	7.1	

Table 75: Option Modifications in T-Server for Siemens Hicom 300/HiPath 4000 CSTA I (Continued)

Option Name	Type of Change	Occurred in Release #	Details
hicom300e-load-limit hicom300E-load-limit	Renamed	7.0.2	Renamed from `hicom300E-load-limit` to `hicom300e-load-limit`. Old name still available as an alias.
	Removed	7.1	
hicom300e-version hicom300E-version	Renamed	7.0.2	Renamed from `hicom300E-version` to `hicom300e-version`. Old name still available as an alias.
	Removed	7.1	
transfer-delay	New	7.0.2	
reconnect-timeout	Removed	7.1	See new option `restart-period`.
rtt-time-limit	Removed	7.1	See new options `kpl-interval` and `kpl-tolerance`.
link-keepalive-counter	Removed	7.1	See new options `kpl-interval` and `kpl-tolerance`.
inbound-bsns-calls	New	7.1	
outbound-bsns-calls	New	7.1	
legal-guard-time	New	7.1	
agent-strict-id	New	7.1	
inherit-bsns-type	New	7.1	
unknown-bsns-calls	New	7.1	
internal-bsns-calls	New	7.1	
unknown-xfer-merge-udata	New	7.1	
prd-dist-call-ans-time	New	7.1	
max-pred-req-delay	New	7.1	
extn-no-answer-timeout	New	7.1	
extn-no-answer-overflow	New	7.1	
posn-no-answer-timeout	New	7.1	

Table 75: Option Modifications in T-Server for Siemens Hicom 300/HiPath 4000 CSTA I (Continued)

Option Name	Type of Change	Occurred in Release #	Details
posn-no-answer-overflow	New	7.1	
agent-no-answer-timeout	New	7.1	
agent-no-answer-overflow	New	7.1	
agent-no-answer-action	New	7.1	
recall-no-answer-timeout	New	7.1	
supervised-route-timeout	New	7.1	
consult-supervised-rt	New	7.1	
emu-sstr	New	7.1	
rel-cons-reconnect	New	7.1	
new-iscc-tag	New	7.1	
correct-connid	New	7.1	
correct-rqid	New	7.1	
callback-dn	New	7.1	
pend-state-sync-tout	New	7.1	
accode-agent	New	7.1	
acw-retain-call	New	7.1	
accode-privateservice	New	7.1	
accode-data	New	7.1	
accode-name	New	7.1	
accode-index	New	7.1	
nas-private	New	7.1	
acw-retain-lock	New	7.1	
expire-call-tout	New	7.1	Replaces `call-delete-timeout`.
	Removed	7.6	

Table 75: Option Modifications in T-Server for Siemens Hicom 300/HiPath 4000 CSTA I (Continued)

Option Name	Type of Change	Occurred in Release #	Details
retain-call-tout	New	7.1	Replaces `call-delete-timeout`.
convert-otherdn	New	7.1	
dn-for-undesired-calls	New	7.1	
accept-dn-type	New	7.2	
default-dn-type	New	7.2	
dn-del-mode	New	7.2	
compatibility	New	7.2	
emulate-login	New	7.5	
emulated-login-state	New	7.5	
sync-emu-agent	New	7.5	
untimed-wrap-up-value	New	7.5	
backwds-compat-acw-behavior	New	7.5	
override-switch-acw	New	7.5	
dial-separator	New	7.5	
agent-group	New	7.5	
timed-cwk-in-idle	See Details	7.5	Renamed to `timed-acw-in-idle`. Old name still available as an alias.
cwk-in-idle-force-ready	See Details	7.5	Renamed to `acw-in-idle-force-ready`. Old name still available as an alias.
notrdy-bsns-call-force-rdy	Removed	7.5	
consult-supervised-rt	See Details	7.5	Default value changed to `false`.
clid-withheld-name	New	7.6	
nas-indication	New	7.6	
wrap-up-threshold	New	7.6	

Table 75: Option Modifications in T-Server for Siemens Hicom 300/HiPath 4000 CSTA I (Continued)

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > link-control Section The section name changed from the CTI-Link section to the `link-control` section.			
CTI-Link Section	See Details	7.1	Renamed to the `link-control` section.
protocol	Removed	7.1	
restart-cleanup-limit	New	7.1	
restart-cleanup-dly	New	7.1	
quiet-cleanup	New	7.1	
quiet-startup	New	7.1	
rq-expire-tout	New	7.1	Replaces `request-timeout`.
call-rq-gap	New	7.1	
rq-gap	New	7.1	
kpl-interval	New	7.1	Replaces `link-keepalive-counter`.
kpl-tolerance	New	7.1	Replaces `link-keepalive-counter`.
reg-interval	New	7.1	
acse-enable	New	7.1	
ha-sync-dly-lnk-conn	New	7.1	
max-outstanding	New	7.1	
reg-silent	See Details	7.5	Default value changed to `true`.
kpl-loss-rate	New	7.6	
Application-Level Options > SwitchSpecificType Section (new in 7.2)			
extension	New	7.2	
acd-queue	New	7.2	
routing-point	New	7.2	
routing-queue	New	7.2	

Table 75: Option Modifications in T-Server for Siemens Hicom 300/HiPath 4000 CSTA I (Continued)

Option Name	Type of Change	Occurred in Release #	Details
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-timeout	New	7.1	
no-answer-overflow	New	7.1	
no-answer-action	New	7.1	

T-Server for Siemens HiPath DX

Table 76 shows the modifications made to switch-specific options for T-Server for Siemens HiPath DX when migrating to its latest release.

Table 76: Option Modifications for T-Server for Siemens HiPath DX

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
agent-no-answer-timeout	New	6.5.2	Default value: `15`
	Modified	7.0	
agent-no-answer-overflow	New	6.5.2	No default value
	Modified	7.0	
agent-no-answer-action	New	6.5.2	No default value
	Modified	7.0	
agent-strict-id	New	6.5.1	Default value: `false`
wrap-up-time	New	6.5.1	Default value: `0`
legal-guard-time	New	6.5.1	Default value: `0`
timed-cwk-in-idle	New	6.5.1	Default value: `true`
cwk-in-idle-force-ready acw-in-idle-force-ready	New	6.5.1	Default value: `true`
	Modified	8.0	Renamed from `cwk-in-idle-force-ready` to `acw-in-idle-force-ready`.
inbound-bsns-calls	New	6.5.1	Default value: `false`

Table 76: Option Modifications for T-Server for Siemens HiPath DX (Continued)

Option Name	Type of Change	Occurred in Release #	Details
outbound-bsns-calls	New	6.5.1	Default value: `false`
shutdown-limit	Removed	6.5.1	
notrdy-bsns-cl-force-rdy	New	7.0	Default value: `false`
prd-dist-call-ans-time	New	7.0	Default value: `0`
max-pred-req-delay	New	7.0	Default value: `3`
extn-no-answer-timeout	New	7.0	Default value: `15`
extn-no-answer-overflow	New	7.0	No default value
posn-no-answer-timeout	New	7.0	Default value: `15`
posn-no-answer-overflow	New	7.0	No default value
supervised-route-timeout	New	7.0	No default value
inherit-bsns-type	New	7.0.2	
accept-dn-type	New	7.2	
default-dn-type	New	7.2	
dn-del-mode	See Details	7.2	Replaces `dev-del-mode`
agent-emu-login-on-call	New	8.0	
agent-group	New	8.0	
agent-logout-on-unreg	New	8.0	
agent-logout-reassoc	New	8.0	
agent-only-private-calls	New	8.0	
backwds-compat-acw-behavior	New	8.0	
bsns-call-type	New	8.0	
callback-dn	New	8.0	
call-type-by-dn	New	8.0	
clear-call-delay	New	8.0	

Table 76: Option Modifications for T-Server for Siemens HiPath DX (Continued)

Option Name	Type of Change	Occurred in Release #	Details
emulate-login	New	8.0	
emulated-login-state	New	8.0	
nas-indication	New	8.0	
override-switch-acw	New	8.0	
pend-state-sync-tout	New	8.0	
releasing-party-report	New	8.0	
retain-call-tout	New	8.0	
route-failure-alarm-high-wm	New	8.0	
route-failure-alarm-low-wm	New	8.0	
route-failure-alarm-period	New	8.0	
strict-routing	New	8.0	
sync-emu-acw	New	8.0	
timed-acw-in-idle	New	8.0	
untimed-wrap-up-value	New	8.0	
wrap-up-threshold	New	8.0	
sync-emu-agent New		8.0	
Application-Level Options > CTI-Link Section			
manual-in	Removed	6.1	
use-switch-logins	Removed	6.1	
application-name	New	6.1	Default value: `GCTI T-Server`
hd-login-mode	New	6.1	Default value: `agent`
hd-logout-mode	New	6.1	Default value: `agent`
accode-privateservice	New	6.5.1	Default value: `false`
accode-udata	New	6.5.1	Default value: `false`
accode-agent	New	6.5.1	Default value: `false`

Table 76: Option Modifications for T-Server for Siemens HiPath DX (Continued)

Option Name	Type of Change	Occurred in Release #	Details
acw-retain-call	New	6.5.1	Default value: `false`
accode-use-rsn	New	6.5.2	Default value: `false`
trunk-map-mode	New	6.5.2	Default value: `standard`
reroute-gap	Removed	6.5.2	Default value: 300
strict-routing	New	6.5.3	Default value: `true`
host link-host	Modified	7.0	Renamed from `link-host` to `hostname`. You can still use previous name as an alias. New value: No default value Old value removed in 6.5.3: `localhost`
port link-port	Modified	7.0	Renamed from `link-port` to `port` in 7.0. New default value: `18544` Old default value: `20000`
rq-gap	New	6.1	
	New default value	7.0	New default value: `0` Old default value: `10`
use-routing use-native-routing	New	6.1	
	Modified	7.0	Renamed to `use-native-routing`. Default value: `true`
max-outstanding	New	6.1	
	New default value	7.0	New default value: `100` Old default value: `1`
walk-away-bck-compat	New	7.0	Default value: `true`
call-rq-gap	New	7.0.2	
call-max-outstanding	New	7.0.2	
reg-delay	New	7.2	
reg-silent	New	7.2	

Table 76: Option Modifications for T-Server for Siemens HiPath DX (Continued)

Option Name	Type of Change	Occurred in Release #	Details
device-rq-gap	New	8.0	
kpl-loss-rate	New	8.0	
link-alarm-high	New	8.0	
link-alarm-low	New	8.0	
link-samplesize	New	8.0	
port	New	8.0	
rq-conflict-check	New	8.0	
use-link-bandwidth	New	8.0	
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-timeout	New	7.0	Default value: Same as value in corresponding global option
no-answer-overflow	New	7.0	No default value
no-answer-action	New	7.0	No default value

T-Server for Siemens HiPath 3000 CSTA III

Table 77 shows the modifications made to switch-specific options for the T-Server for Siemens HiPath 3000 CSTA III when migrating to its latest release.

Table 77: Option Modifications in T-Server for Siemens HiPath 3000 CSTA III

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
internal-bsns-calls	New	7.1	
unknown-bsns-calls	New	7.1	
nas-private	New	7.1	
recall-no-answer-timeout	New	7.1	

Table 77: Option Modifications in T-Server for Siemens HiPath 3000 CSTA III (Continued)

Option Name	Type of Change	Occurred in Release #	Details
convert-other-dn	New	7.1	
dn-for-undesired-calls	New	7.1	
callback-dn	New	7.1	
unknown-xfer-merge-udata	New	7.1	
correct-connid	New	7.1	
correct-rqid	New	7.1	
expire-call-tout	See details	7.1	Moved to the `TServer` section and renamed from `expire-call-tmout`.
retain-call-tout	See details	7.1	Moved to the `TServer` section and renamed from `retain-call-tmout`.
Application-Level Options > link-control Section The section name changed from the CTI-Link section to the `link-control` section.			
CTI-Link Section	See Details	7.1	Renamed to the `link-control` section.
quiet-cleanup	New	7.1	
quiet-startup	New	7.1	
restart-cleanup-dly	New	7.1	
ha-sync-dly-lnk-conn	New	7.1	

T-Server for Siemens HiPath 4000 CSTA III

Table 78 shows the modifications made to switch-specific options for the T-Server for Siemens HiPath 4000 CSTA III when migrating to its latest release.

Table 78: Option Modifications in T-Server for Siemens HiPath 4000 CSTA III

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
agent-no-answer-timeout	Modified	7.0	

Table 78: Option Modifications in T-Server for Siemens HiPath 4000 CSTA III (Continued)

Option Name	Type of Change	Occurred in Release #	Details
agent-no-answer-overflow	Modified	7.0	
agent-no-answer-action	Modified	7.0	
notrdy-bsns-cl-force-rdy	New	7.0	
	Removed	7.5	
max-pred-req-delay	New	7.0	
extn-no-answer-timeout	New	7.0	
extn-no-answer-overflow	New	7.0	
posn-no-answer-timeout	New	7.0	
posn-no-answer-overflow	New.	7.0	
agent-dev-check	New	7.0.2	
	Removed	7.1	
inherit-bsns-type	New	7.0.2	
accode-use-uevent	New	7.0.2	
	Removed	7.1	
accode-use-rsn	New	7.0.2	
	Removed	7.1	
accode-agent	New	7.0.2	
acw-retain-call	New	7.0.2	
accode-private-service	New	7.0.2	
accode-data	New	7.0.2	
accode-name	New	7.0.2	
dtmf-digit-length	See Details	7.1	Moved to `Tserver` section.
internal-bsns-calls	New	7.1	
unknown-bsns-calls	New	7.1	

Table 78: Option Modifications in T-Server for Siemens HiPath 4000 CSTA III (Continued)

Option Name	Type of Change	Occurred in Release #	Details
unknown-xfer-merge-udata	New	7.1	
nas-private	New	7.1	
recall-no-answer-timeout	New	7.1	
accode-index	New	7.1	
acw-retain-lock	New	7.1	
correct-connid	New	7.1	
correct-rqid	New	7.1	
pend-state-sync-tout	New	7.1	
callback-dn	New	7.1	
convert-otherdn	New	7.1	
dn-for-undesired-calls	New	7.1	
agent-clean-login	New	7.1	
retain-call-tout (retain-call-tmout)	See Details	7.1	Moved to the `TServer` section and renamed from `retain-call-tmout`. You can still use the previous name as an alias.
expire-call-tout (expire-call-tmout)	See Details	7.1	Moved to the `TServer` section and renamed from `expire-call-tmout` in 7.1. You can still use the previous name as an alias.
	Removed	7.6	
uui-as-text	See Details	7.1	Moved from the `link-control` section.
transfer-timer	See Details	7.1	Moved from the `link-control` section.
	See Details	7.5	Upper limit of value range increased to `10000`.
accept-dn-type	New	7.2	
default-dn-type	New	7.2	

Table 78: Option Modifications in T-Server for Siemens HiPath 4000 CSTA III (Continued)

Option Name	Type of Change	Occurred in Release #	Details
dn-del-mode	New	7.2	
heartbeat-appname	New	7.2	
heartbeat-overflow	New	7.2	
emulate-login	New	7.5	
emulated-login-state	New	7.5	
agent-group	New	7.5	
sync-emu-agent	New	7.5	
	Removed	8.0	
dial-separator	New	7.5	
untimed-wrap-up-value	New	7.5	
backwds-compat-acw-behavior	New	7.5	
override-switch-acw	New	7.5	
timed-cwk-in-idle	See Details	7.5	Renamed to `timed-acw-in-idle`. You can still use the old name as an alias.
cwk-in-idle-force-ready	See Details	7.5	Renamed to `acw-in-idle-force-ready`. You can still use the old name as an alias.
consult-supervisd-rt	See Details	7.5	Default value changed to `false`.
legal-guard-time	See Details	7.5	Upper limit of value range increased to `30`.
clid-withheld-name	New	7.6	
wrap-up-threshold	New	7.6	
nas-indication	New	7.6	
rtmem-divert-tout	New	7.6	
vto-onhook-dly	New	7.6	
auto-reconnect-on-fail	New	7.6	
sync-emu-acw	New	8.0	

Table 78: Option Modifications in T-Server for Siemens HiPath 4000 CSTA III (Continued)

Option Name	Type of Change	Occurred in Release #	Details
agent-only-private-calls	New	8.0	
agent-logout-on-unreg	New	8.0	
agent-logout-reassoc	New	8.0	
agent-emu-login-on-call	New	8.0	
bsns-call-type	New	8.0	
call-type-by-dn	New	8.0	
releasing-party-report	New	8.0	
route-failure-alarm-high-wm	New	8.0	
route-failure-alarm-low-wm	New	8.0	
route-failure-alarm-period	New	8.0	
agent-strict-id	New value added	8.0	New value `passwd` added.
auto-reconnect-on-fail	See details	8.1	Moved to the `TServer` section.
Application-Level Options > Link-Control Section The section name changed from the CTI-Link section to the `link-control` section.			
CTI-Link Section	See Details	7.1	Renamed to the `link-control` section.
hostname host	Modified	7.0.2	Name changed from `host` to `hostname`. You can still use the previous name as an alias. Default value changed to `callbridge` in 7.0.
call-rq-gap	New	7.0.2	
kpl-interval	New	7.0	
kpl-tolerance	New	7.0	
max-outstanding	New	7.0	
rq-gap	New	7.0	
ha-sync-dly-lnk-conn	New	7.1	

Table 78: Option Modifications in T-Server for Siemens HiPath 4000 CSTA III (Continued)

Option Name	Type of Change	Occurred in Release #	Details
restart-cleanup-limit	New	7.1	
	Modified	8.0	New default value: `0` Old default value: `10`
restart-cleanup-dly	New	7.1	
quiet-cleanup	New	7.1	
quiet-startup	New	7.1	
retain-call-tout retain-call-tmout	See Details	7.1	Renamed from `retain-call-tmout`. Moved to the `TServer` section.
expire-call-tout expire-call-tmout	See Details	7.1	Renamed from `expire-call-tmout`. Moved to the `TServer` section
rq-expire-tout rq-expire-tmout	Modified	7.1	Renamed from `rq-expire-tmout`. You can still use the previous name as an alias.
reg-delay	New	7.2	
reg-silent	New	7.2	
	Modified	7.5	Default value change to `true`.
kpl-loss-rate	New	7.6	
	Removed	8.1	
link-alarm-high	New	8.0	
link-alarm-low	New	8.0	
use-link-bandwidth	New	8.0	
rq-conflict-check	New	8.0	
device-rq-gap	New	8.0	
Application-Level Options > SwitchSpecificType Section (new in 7.2)			
extension	New	7.2	
acd-queue	New	7.2	

Table 78: Option Modifications in T-Server for Siemens HiPath 4000 CSTA III (Continued)

Option Name	Type of Change	Occurred in Release #	Details
routing-point	New	7.2	
routing-queue	New	7.2	
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-timeout	New	7.0	
no-answer-overflow	New	7.0	
no-answer-action	New.	7.0	

T-Server for Spectrum

Prior to release 8.1, this product was known as T-Server for Rockwell Spectrum.

Table 79 shows the modifications made to switch-specific options for T-Server for Spectrum, when migrating to its latest release.

Table 79: Option Modifications in T-Server for Spectrum

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
script-prefix	Removed	6.1.1	Replaced with `queue-prefix`.
route-script-prefix	See Details	6.1.1	Replaced with `route-dn-prefix`.
detection	See Details	6.1.1	Replaced with `detection-method`.
answer-detection	See Details	6.1.1	Replaced with `answering-machine-application`.
rtt-time-limit	See Details	6.1.1	Replaced with `poll-interval` in the CTI-Link section.
link-keepalive-counter	See Details	6.1.1	Replaced with `poll-interval` in the CTI-Link section.
queue-prefix	New	6.1.1	Replaces: `script-prefix`.
route-dn-prefix	New	6.1.1	Replaces: `route-script-prefix`.
detection-method	New	6.1.1	Replaces: `detection`.

Table 79: Option Modifications in T-Server for Spectrum (Continued)

Option Name	Type of Change	Occurred in Release #	Details
answering-machine-application	New	6.1.1	Replaces: `answer-detection`.
bypass-bad-packet	Removed	6.1.1	
rc-rate	Removed	6.1.1	
	Re-introduced	7.0.2	
trunk-group-prefix	Removed	6.1.1	
use-host-info-as-dn	Obsolete	7.0.2	
	Re-introduced	7.1	The default value is now `true`.
user-data-limit	New	7.0	
attach-acc-host-info	Obsolete	7.0.2	
show-dialing-dn	Obsolete	7.0.2	
	Re-introduced	7.1	Functionality is extended. The option is added back to the current options.
old-queue-style	Obsolete	7.0.2	
null-dn	Obsolete	7.0.2	
vag-support	New	7.1	
agent-group-prefix	New	7.1	
ignore-unknown-appl	New	7.1	
lan-agent-support	New	7.2	
allow-split-conference	New	7.6	
create-addr-on-register	New	8.0	
agent-acw-predict	New	8.1	
support-3call-conf-xfer	New	8.1	

Table 79: Option Modifications in T-Server for Spectrum (Continued)

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > CTI-Link Section			
poll-interval	New	6.1.1	
	Modified	7.6	This option now supports dynamic changes.

T-Server for Symposium Call Center Server

Starting with release 7.1, the functionality of Meridian I and Symposium Call Center Server T-Servers are combined into one T-Server. See “T-Server for Nortel Communication Server 1000 with SCCS/MLS” on page 488.

T-Server for Tadiran Coral

Table 80 shows the modifications made to switch-specific options for T-Server for Tadiran Coral when migrating to its latest release.

Table 80: Option Modifications in T-Server for Tadiran Coral

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
wrap-up-time	New	6.5.1	
legal-guard-time	New	6.5.1	
timed-cwk-in-idle	New	6.5.1	
cwk-in-idle-force-ready	New	6.5.1	
inbound-bsns-calls	New	6.5.1	
outbound-bsns-calls	New	6.5.1	
shutdown-limit	Removed	6.5.2	
keep-alive-timeout	Removed	6.5.2	
alternate-expire-timeout	Removed	6.5.2	

Table 80: Option Modifications in T-Server for Tadiran Coral (Continued)

Option Name	Type of Change	Occurred in Release #	Details
vto-onhook-delay aport-onhook-delay	New	6.5.2	
	Modified	7.0	Renamed from `aport-onhook-delay`.
agent-no-answer-timeout	New	6.5.3	
	Modified	7.0	
agent-no-answer-overflow	New	6.5.3	
	Modified	7.0	
agent-no-answer-action	New	6.5.3	
	Modified	7.0	
notrdy-bsns-cl-force-rdy	New	7.0	
prd-dist-call-ans-time	New	7.0	
max-pred-req-delay	New	7.0	
extn-no-answer-timeout	New	7.0	
extn-no-answer-overflow	New	7.0	
posn-no-answer-timeout	New	7.0	
posn-no-answer-overflow	New	7.0	
supervised-route-timeout	New	7.0	
inherit-bsns-type	New 7.0	.2	
accept-dn-type	New	8.0	
agent-strict-id	Modified	8.0	New valid value `passwd` added.
agent-emu-login-on-call	New	8.0	
agent-group	New	8.0	
agent-logout-on-unreg	New	8.0	
agent-logout-reassoc	New	8.0	
agent-only-private-calls	New	8.0	
agentid-length	New	8.0	

Table 80: Option Modifications in T-Server for Tadiran Coral (Continued)

Option Name	Type of Change	Occurred in Release #	Details
backwds-compat-acw-behavior	New	8.0	
bsns-call-type	New	8.0	
callback-dn	New	8.0	
call-type-by-dn	New	8.0	
convert-otherdn	New	8.0	
correct-connid	New	8.0	
correct-rqid	New	8.0	
dn-for-undesired-calls	New	8.0	
default-dn-type	New	8.0	
dn-del-mode	New	8.0	
emulate-login	New	8.0	
emulated-login-state	New	8.0	
internal-bsns-calls	New	8.0	
nas-indication	New	8.0	
nas-reason-code	New	8.0	
override-switch-acw	New	8.0	
releasing-party-report	New	8.0	
route-failure-alarm-high-wm	New	8.0	
route-failure-alarm-low-wm	New	8.0	
route-failure-alarm-period	New	8.0	
rule-<n>, where n=1-N	New	8.0	
sync-emu-agent	New	8.0	
sync-emu-acw	New	8.0	
unknown-bsns-calls	New	8.0	

Table 80: Option Modifications in T-Server for Tadiran Coral (Continued)

Option Name	Type of Change	Occurred in Release #	Details
unknown-xfer-merge-udata	New	8.0	
untimed-wrap-up-value	New	8.0	
wrap-up-threshold	New	8.0	
Application-Level Option > SwitchSpecificType Section			
extension	New	8.0	
Application-Level Options >Link Section			
max-queued	Removed	6.5.2	
kpl-interval	New	6.5.2	
kpl-tolerance	New	6.5.2	
reroute-gap	Removed	6.5.2	
reg-interval	New	7.0	
call-rq-gap	New	7.0.2	
call-max-outstanding	New	7.0.2	
rq-gap	Modified	7.0.2	Default value changed from `10` to `0`.
host hostname	Modified	7.0.2	Named changed from `host` to `hostname`. You can still use the previous name as an alias.
device-max-outstanding	New	8.0	
device-rq-gap	New	8.0	
ha-sync-dly-lnk-conn	New	8.0	
kpl-loss-rate	New	8.0	
link-alarm-high	New	8.0	
link-alarm-low	New	8.0	
link-samplesize New		8.0	
quiet-cleanup	New	8.0	
quiet-startup	New	8.0	

Table 80: Option Modifications in T-Server for Tadiran Coral (Continued)

Option Name	Type of Change	Occurred in Release #	Details
reg-delay	New	8.0	
reg-silent	New	8.0	
retain-call-tout	Modified	8.0	Name changed from `retain-call-tmout` to `retain-call-tout`.
restart-cleanup-dly	New	8.0	
restart-cleanup-limit	New	8.0	
restart-period	New	8.0	
rq-conflict-check	New	8.0	
use-link-bandwidth	New	8.0	
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-timeout	New	7.0	
no-answer-overflow	New	7.0	
no-answer-action	New	7.0	
nas-private	New	8.0	
recall-no-answer-timeout	New	8.0	

T-Server for Teltronics 20-20

Table 81 shows the modifications made to switch-specific options for T-Server for Teltronics 20-20 when migrating to its latest release.

Table 81: Option Modifications in T-Server for Teltronics 20-20

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
default-destination	See Details	6.5.3	New default value: `9999`
link-timeout	See Details	6.5	New default value: `1000`
	See Details	6.5	New lower limit: `1000`
tracking-timeout	See Details	6.5	New default value: `3000`

Table 81: Option Modifications in T-Server for Teltronics 20-20 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
channel-rq-timeout	See Details	6.5	New default value: `10`
correct-connid	New 7.0.2		
Application-Level Options > UDP-Connection Section			
iface-address	New default value	6.5.3	New value: `harrishost`
Application-Level Options > Switch Collect-and-Route Configuration Section			
hil-hold-invoke	New	6.5.2	Reserved for Genesys engineers until 7.0.200.05.

T-Server for Tenovis Integral 33/55

Table 82 shows the modifications made to switch-specific options for T-Server for Tenovis Integral 33/55 when migrating to its latest release.

Table 82: Option Modifications in T-Server for Tenovis Integral 33/55

Option Name	Type of Change	Occurred in Release #	Details
Application-Level Options > TServer Section			
wrap-up-time Ne	w	6.5.1	
legal-guard-time New		6.5.1	
timed-cwk-in-idle	New	6.5.1	
cwk-in-idle-force-ready	New	6.5.1	
inbound-bsns-calls	New	6.5.1	
outbound-bsns-calls	New	6.5.1	
agent-no-answer-timeout	New	6.5.2	
	Modified	7.0	
agent-no-answer-overflow	New	6.5.2	
	Modified	7.0	

Table 82: Option Modifications in T-Server for Tenovis Integral 33/55 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
agent-no-answer-action	New	6.5.2	
	Modified	7.0	
agent-strict-id	New	6.5.2	
shutdown-limit	Removed	6.5.2	
agent-substitute	New	6.5.3	
prd-dist-ans-call-time	New	6.5.3	
supervised-route-timeout	New	6.5.3	
consult-supervised-rt	New	7.0	
vto-onhook-delay	New	7.0	
no-answer-action-dly	New	7.0	
notrdy-bsns-cl-force-rdy	New	7.0	
max-pred-req-delay	New	7.0	
extn-no-answer-timeout	New	7.0	
extn-no-answer-overflow	New	7.0	
posn-no-answer-timeout	New	7.0	
posn-no-answer-overflow	New	7.0	
inherit-bsns-type	New	7.0.2	
Application-Level Options > CTI-Link Section			
reroute-gap	Removed	6.5.2	
reg-interval	New	6.5.2	
expire-call-tmout	Units changed	6.5.3	New units: seconds Old units: minutes
cti-version	New	6.5.3	
wrapup-time (for real agents)	Removed	7.0	

Table 82: Option Modifications in T-Server for Tenovis Integral 33/55 (Continued)

Option Name	Type of Change	Occurred in Release #	Details
hostname link-host	Modified	7.0.2	Name changed to `hostname`. You can still use the previous name as an alias.
port link-port	Modified	7.0.2	Name changed to `port`. You can still use the previous name as an alias.
call-rq-gap	New	7.0.2	
call-max-outstanding	New	7.0.2	
Agent Login–Level and DN-Level Options > TServer Section			
no-answer-timeout	New	7.0	
no-answer-overflow	New	7.0	
no-answer-action	New	7.0	

Network T-Server for AT&T

Table 83 shows the modifications made to switch-specific options for Network T-Server for AT&T, when migrating to its latest release.

Table 83: Option Modifications in Network T-Server for AT&T

Option Name	Type of Change	Occurred in Release #	Details
pgf-debug Section			
pgf-debug	New	7.0	Section `pgf-debug` has been added.
debug	New	7.0	

Network T-Server for Concert

Table 84 shows the modifications made to T-Server-specific options for Network T-Server for Concert, when migrating to its latest release.

Table 84: Option Modifications in Network T-Server for Concert

Option Name	Type of Change	Occurred in Release #	Details
TServer Section			
log-file-name	Removed	7.0	
log-file-size	Removed	7.0	
log-remove-old-files	Removed	7.0	
log-check-interval	Removed	7.0	
log-buffering	Removed	7.0	
remote-agent-route-support	Removed	7.0	
use-purge-by-time	Removed	7.0	
max-response-wait	Removed	7.0	
def-route-type	Moved	7.0	This option moved to section `crp`.
def-label	Moved	7.0	This option moved to section `crp`.
use-purge-by-size	Moved	7.0	This option moved to section `crp`.
max-queue-size	Moved	7.0	This option moved to section `crp`.
request-queue-size	Removed	7.0	
queue-check-time-msec	Removed	7.0	
min-dialed-len-national	Moved	7.0	This option moved to section `crp`.
max-dialed-len-national	Moved	7.0	This option moved to section `crp`.
min-dialed-len-international	Moved	7.0	This option moved to section `crp`.
max-dialed-len-international	Moved	7.0	This option moved to section `crp`.
min-ani-len-national	Moved	7.0	This option moved to section `crp`.
max-ani-len-national	Moved	7.0	This option moved to section `crp`.
min-ani-len-international	Moved	7.0	This option moved to section `crp`.

Table 84: Option Modifications in Network T-Server for Concert (Continued)

Option Name	Type of Change	Occurred in Release #	Details
max-ani-len-international	Moved	7.0	This option moved to section `crp`.
min-ced-len	Moved	7.0	This option moved to section `crp`.
max-ced-len	Moved	7.0	This option moved to section `crp`.
ss7-tcap-impl-name	Removed	7.0	
dgms-max-dialogs	Removed	7.0	
dgms-local-ssn	Removed	7.0	
dgms-node-name	Removed	7.0	
dgms-logical-name	Removed	7.0	
hp-ss7-ssn	Removed	7.0	Replaced with `ssn` and included in section `OpenCall`.
hp-ss7-name	Removed	7.0	Replaced with `ss7Name` and included in section `OpenCall`.
hp-appl-id	Removed	7.0	Replaced with `appId` and included in section `OpenCall`.
hp-inst-id	Removed	7.0	Replaced with `instId` and included in section `OpenCall`.
hp-tcap-timeout-sec	Removed	7.0	
ss7-tcap-impl-name	Removed	7.0	
AsnSap Section			
AsnSap	New	7.0	The section `AsnSap` has been added.
type-table-file	New	7.0	
codec-data-location-specified	New	7.0	
encode-module-name	New	7.0	
encode-type-name	New	7.0	
decode-module-name	New	7.0	
decode-type-name	New	7.0	
data-location	New	7.0	

Table 84: Option Modifications in Network T-Server for Concert (Continued)

Option Name	Type of Change	Occurred in Release #	Details
property-map-location	New	7.0	
pgf Section			
pgf	New	7.0	The section `pgf` has been added.
ptc-file	New	7.0	
pgf-debug Section			
pgf-debug	New	7.0	The section `pgf-debug` has been added.
debug	New	7.0	
crp Section			
crp	New	7.0	The section `crp` has been added.
def-route-type	New	7.0	
Timers Section			
Timers	New	7.0	The section `Timers` has been added.
Call Timeout	New	7.0	
DecSs7 Section			
DecSs7	New	7.0	The section `DecSs7` has been added.
tcap-allow-multi-comp	New	7.0	
NMS Section			
NMS	New	7.0	The section `NMS` has been added.
serviceName	New	7.0	
serviceManager	New	7.0	
paramFlags	New	7.0	
traceFlags	New	7.0	
boardNum	New	7.0	
appid	New	7.0	
sapid	New	7.0	

Table 84: Option Modifications in Network T-Server for Concert (Continued)

Option Name	Type of Change	Occurred in Release #	Details
ssn	New	7.0	
ansi_param_container	New	7.0	
switchover	New	7.0	
tcap-allow-multi-comp	New	7.0	
OpenCall Section			
OpenCall	New	7.0	Section `OpenCall` has been added.
ssn	New	7.0	Replaces `hp-ss7-ssn`.
ss7Name	New	7.0	Replaces `hp-ss7-name`.
sccpServiceType	New	7.0	
appId	New	7.0	Replaces `hp-appl-id`.
instId	New	7.0	Replaces `hp-inst-id`.
openTimeout	New	7.0	
reconnectTimeout	New	7.0	
tcap-allow-multi-comp	New	7.0	

Network T-Server for CRSP

Table 85 shows the modifications made to switch-specific options for Network T-Server for CRSP, when migrating to its latest release.

Table 85: Option Modifications in Network T-Server for CRSP

Option Name	Type of Change	Occurred in Release #	Details
CRSP Section			
allow_pstn_consult	New	7.1	
Timers Section			
Session Timeout	See Details	7.6	This option is undocumented in previous versions.

Network T-Server for DTAG

Table 86 shows the modifications made to switch-specific options for Network T-Server for DTAG, when migrating to its latest release.

Table 86: Option Modifications in Network T-Server for DTAG

Option Name	Type of Change	Occurred in Release #	Details
service-%d Section			
service-%d	New	6.5.3	The section `service-%d` has been added.
service-indicator	New	6.5.3	
max-length	New	6.5.3	
ClearANIifCLIR	Modified	7.2	New valid values: `true, false` Old valid values: `0, 1`
add-zeroes	Modified	7.2	New valid values: `true, false` Old valid values: `0, 1` Option name spelling corrected Old name: `add-zeros` New name: `add-zeroes`
reroute-by-scp-for-announcement	Modified	7.2	New valid values: `true, false` Old valid values: `0, 1`
reroute-by-scp-for-destination	Modified	7.2	New valid values: `true, false` Old valid values: `0, 1`
TServer Section			
scp-<*n*>-name	See Details	7.6	This option is undocumented in previous versions.
service-<*n*>	See Details	7.6	This option is undocumented in previous versions.

Network T-Server for GenSpec

Table 87 shows the modifications made to switch-specific options for Network T-Server for GenSpec when migrating to its latest release.

Table 87: Option Modifications in Network T-Server for GenSpec

Option Name	Type of Change	Occurred in Release #	Details
Tcap Tcl Network Interface-specific Section			
asn-type-table-file	Removed	6.5.1	Replaced with `type-table-file` and included in section `AsnSap`.
tcap-impl-name	Removed	6.5.1	
bcd-star	Removed	6.5.1	Replaced with `bcd-conversion` and included in section `pgf`. See also `bcd-pound`.
bcd-pound	Removed	6.5.1	Replaced with `bcd-conversion` and included in section `pgf`. See also `bcd-star`.
TclServer-specific Section			
TcapTclNetworkInterface_specific	Removed	6.5.1	
tcl-config-file Remove	d	6.5.1	Replaced with `ptc-file` and included in section `pgf`.
IWF_specific Section			
IWF_specific	Removed	6.5.1	Replaced with the `GenSpec` section. All options are unchanged.
FlowControl_State	Moved	6.5.1	Moved to section `GenSpec`.
SendRouteResponseOnTimeout	Moved	6.5.1	Moved to section `GenSpec`.
WaitingForRouter_Timeout	Moved	6.5.1	Moved to section `GenSpec`.
WaitingForRouter_AfterTreatmentEnd_Timeout	Moved	6.5.1	Moved to section `GenSpec`.
WaitingForSCP_TreatmentApplied_Timeout	Moved	6.5.1	Moved to section `GenSpec`.

Table 87: Option Modifications in Network T-Server for GenSpec (Continued)

Option Name	Type of Change	Occurred in Release #	Details
WaitingForSCP_ TreatmentEnd_Timeout	Moved	6.5.1	Moved to section `GenSpec`.
WaitingForSCP_ RouteUsed_Timeout	Moved	6.5.1	Moved to section `GenSpec`.
WaitingForSCP_EndCall_ Timeout	Moved	6.5.1	Moved to section `GenSpec`.
gdi_specific Section			
gdi_specific	Removed	6.5.1	This section has been renamed `gli`. All options are renamed from a `gdi` prefix to a `gli` prefix. For example, `gdi-mode` is now `gli-mode`.
gdi-mode	Removed	6.5.1	
gdi-keep-alive-interval	Removed	6.5.1	
gdi-keep-alive-tries	Removed	6.5.1	
gdi-reconnect-delay	Removed	6.5.1	
gdi-link-proving-delay	Removed	6.5.1	
gdi_client_specific Section			
gdi_client_specific	Removed	6.5.1	
gdi-client-mode	Removed	6.5.1	
gdi-n-clients	Removed	6.5.1	
gdi-client-address	Removed	6.5.1	
gdi-connection-list	Removed	6.5.1	
gdi_server_specific Section			
gdi_server_specific	Removed	6.5.1	This section has been renamed `gli_server`. All options are renamed from a `gdi` prefix to a `gli` prefix. For example, `gdi-server-mode` is now `gli-server-mode`.
gdi-server-mode	Removed	6.5.1	

Table 87: Option Modifications in Network T-Server for GenSpec (Continued)

Option Name	Type of Change	Occurred in Release #	Details
gdi-n-servers	Removed	6.5.1	
gdi-server-address	Removed	6.5.1	
gdi-client-list	Removed	6.5.1	
AsnSap Section			
encode-module-name	New 6.5	.1	
	Removed	8.0	
encode-type-name	New 6.5.1		
	Removed	8.0	
decode-module-name	New 6.5	.1	
	Removed	8.0	
decode-type-name	New 6	.5.1	
	Removed	8.0	
type-table-file	New	6.5.1	
	Removed	8.0	
codec-data-location-specified	Removed	8.0	
data-location	Removed	8.0	
property-map-location	Removed	8.0	
pgf Section			
ptc-file	New	6.5.1	Replaces `tcl-config-file` and included in section `pgf`.
	Removed	8.0	
watermark	New	7.0	
	Moved	8.0	Moved to section `TServer`.

Table 87: Option Modifications in Network T-Server for GenSpec (Continued)

Option Name	Type of Change	Occurred in Release #	Details
GenSpec Section			
GenSpec section	New	6.5.1	Replaces the `IWF_specific` section. All options are moved from there to here and remain unchanged. See `IWF_specific` section.
CallMonitoring_Events	New	7.0	
	Removed	7.1	
FlowControlState FlowControl_State	Renamed	7.1	Renamed from `FlowControl_State`.
	See Details	8.0	Moved to section `TServer`. Renamed `flow-control-state`.
DNISSubsetLength DNIS_Subset_Length	Renamed	7.1	Renamed from `DNIS_Subset_Length`.
LoadBalanceOutboundLinks	New	7.1	
	See Details	8.0	Moved to section `TServer`. Renamed `load-balance-outbound-links`.
MaxTreatmentError	New	7.1	
	See Details	8.0	Moved to section `TServer`. Renamed `max-treatment-error`.
NegInvokeIds	New	7.1	
	See Details	8.0	Moved to section `TServer`. Renamed `neg-invoke-ids`.
AllowPstnConsult	New	7.1	
	See Details	8.0	Moved to section `TServer`. Renamed `allow-pstn-consult`.
SendRouteRequestOn-Timeout	Modified	7.2	New valid values: true, false Old valid values: yes, no
	See Details	8.0	Moved to section `TServer`. Renamed `send-route-response-on-timeout`.

Table 87: Option Modifications in Network T-Server for GenSpec (Continued)

Option Name	Type of Change	Occurred in Release #	Details
FlowControlWaitForLogin	New	7.6	
	See Details	8.0	Moved to section `TServer`. Renamed `flow-control-wait-for-login`.
gli Section			
gli section	New	6.5.1	This section has been renamed `gli` from the previous name of gdi_specific. All options are renamed from a `gdi` prefix to a `gli` prefix. For example, `gdi-mode` is now `gli-mode`.
gli-mode	New	6.5.1	
	Removed	8.0	
gli-keep-alive-interval	New	6.5.1	
	New default value	6.5.1	New default value: `20` Old default value: `-1`
gli-keep-alive-tries	New	6.5.1	
	New default value	6.5.1	New default value: `20` Old default value: `-1`
gli-reconnect-delay	New	6.5.1	
gli-link-proving-delay	New	6.5.1	
	Obsolete	7.5	
	Removed	8.0	
gli-queue-max-timeout	New	8.0	
gli_server Section			
gli-server-mode	New	6.5.1	
	Removed	8.0	
gli-n-servers	New	6.5.1	
	Obsolete	7.5	
	Removed	8.0	

Table 87: Option Modifications in Network T-Server for GenSpec (Continued)

Option Name	Type of Change	Occurred in Release #	Details
gli-server-address	New	6.5.1	
gli-client-list	New	6.5.1	
gli-circuit-failover	New	6.5.1	
gli_server_group_<n> Section			
gli-tls-cert	New	7.5	
gli-tls-cert-key	New	7.5	
gli-trusted-ca	New	7.5	
RerouteSap Section			
RerouteSap section	New	6.5.1	
	Removed	7.1	
reroute-info-path	New	6.5.1	
	Removed	7.1	
debug	New	6.5.1	
	Removed	7.1	
pgf-debug Section			
pgf-debug section	New	7.0	The section `pgf-debug` has been added.
	See Details	7.1	Not to be documented. For internal use only.
debug	New	7.0	
Timers Section			
DefaultRouteTimeout WaitingForRouter_Timeout	See Details	7.1	Renamed from `WaitingForRouter_Timeout`. Moved from the `GenSpec` section.
	Removed	8.0	Replaced by `urs-response-timeout` option.

Table 87: Option Modifications in Network T-Server for GenSpec (Continued)

Option Name	Type of Change	Occurred in Release #	Details
TreatmentRouteTimeout WaitingForRouter_After TreatmentEnd_Timeout	See Details	7.1	Renamed from `WaitingForRouter_After TreatmentEnd_Timeout`. Moved from the `GenSpec` section.
	Removed	8.0	Replaced by `urs-response-timeout` option.
TreatmentAppliedTimeout WaitingForSCP_Treatment Applied_Timeout	See Details	7.1	Renamed from `WaitingForSCP_Treatment Applied_Timeout`. Moved from the `GenSpec` section.
	See Details	8.0	Moved to section `TServer`. Renamed `treatment-applied-timeout`.
TreatmentEndTimeout WaitingFor SCP_ TreatmentEnd_Timeout	See Details	7.1	Renamed from `WaitingForSCP_Treatment End_Timeout`. Moved from the `GenSpec` section.
	Removed	8.0	Obsolete
RouteUsedTimeout WaitingForSCP_RouteUsed_ Timeout	See Details	7.1	Renamed from `WaitingForSCP_RouteUsed_Timeout`. Moved from the `GenSpec` section.
	Removed	8.0	Obsolete
EndCallTimeout WaitingForSCP_EndCall_ Timeout	See Details	7.1	Renamed from `WaitingForSCP_EndCall_Timeout`. Moved from the `GenSpec` section.
	See Details	8.0	Moved to section `TServer`. Renamed `end-call-timeout`.
AsyncRequestTimeout AsyncRequest_Timeout	See Details	7.1	Renamed from `AsyncRequest_Timeout`. Moved from the `GenSpec` section.
	Removed	8.0	Obsolete
OutboundCallTimeout	New	7.1	
	Removed	8.0	Obsolete

Table 87: Option Modifications in Network T-Server for GenSpec (Continued)

Option Name	Type of Change	Occurred in Release #	Details
OutboundRerouteTimeout	New	7.1	
	Removed	8.0	Obsolete
RouteRequestTimeout	New	7.1	
	Modified	7.2	Corrected default value New value: `1 min` Old value: `1 m`
	Removed	8.0	Obsolete
TServer Section			
gli_server_group_<*n*>	See Details	7.6	This option is undocumented in previous versions.
abort-calls-on-link-failure	New	8.0	
allow-pstn-consult	See Details	8.0	Moved from `GenSpec` section. Renamed from `AllowPstnConsult`.
flow-control-state	See Details	8.0	Moved from `GenSpec` section. Renamed from `FlowControlState`.
flow-control-wait-for-login	See Details	8.0	Moved from `GenSpec` section. Renamed from `FlowControlWaitForLogin`.
bcd-conversion	Moved	8.0	Moved from `pgf` section.
bcd-order	Moved	8.0	Moved from `pgf` section.
dnis-subset-length	See Details	8.0	Moved from `GenSpec` section. Renamed from `DNISSubsetLength`.
end-call-timeout	See Details	8.0	Moved from `Timers` section. Renamed from `EndCallTimeout`.
event-abandoned-on-error	See Details	8.0	Moved from `GenSpec` section. Renamed from `EventAbandonedOnError`.
load-balance-outbound-links	See Details	8.0	Moved from `GenSpec` section. Renamed from `LoadBalanceOutboundLinks`.

Table 87: Option Modifications in Network T-Server for GenSpec (Continued)

Option Name	Type of Change	Occurred in Release #	Details
max-treatment-error	See Details	8.0	Moved from `GenSpec` section. Renamed from `MaxTreatmentError`.
neg-invoke-ids	See Details	8.0	Moved from `GenSpec` section. Renamed from `NegInvokeIds`.
network-response-timeout	New	8.0	
send-extension-data-to-scp	New	8.0	
send-route-response-on-timeout	See Details	8.0	Moved from `GenSpec` section. Renamed from `SendRouteResponseOnTimeout`.
switch-response-timeout	New	8.0	
treatment-applied-timeout	See Details	8.0	Moved from `Timers` section. Renamed from `TreatmentAppliedTimeout`.
treatment-state-timeout	New	8.0	
urs-response-timeout	New	8.0	
watermark	Moved	8.0	Moved from `pgf` section.

Network T-Server for ISCP

Table 88 shows the modifications made to T-Server-specific options for Network T-Server for ISCP, when migrating to its latest release.

Table 88: Option Modifications in Network T-Server for ISCP

Option Name	Type of Change	Occurred in Release #	Details
pgf-debug Section			
pgf-debug	New	7.0	The section `pgf-debug` has been added.
debug	New	7.0	
AsnSap Section			
type-table-file	Modified	8.0	Default Value changed from `ldap.tt` to `tserver.tt`.

Table 88: Option Modifications in Network T-Server for ISCP (Continued)

Option Name	Type of Change	Occurred in Release #	Details
tcp Section			
tcp-len-trim	New	8.0	

Network T-Server for MCI

Table 89 shows the modifications made to T-Server-specific options for Network T-Server for MCI, when migrating to its latest release.

Table 89: Option Modifications in Network T-Server for MCI

Option Name	Type of Change	Occurred in Release #	Details
TServer Section			
mci-port-to-pm	Modified	8.1	The default value has been changed to 0 (zero).

Network T-Server for NGSN

Table 90 shows the modifications made to T-Server-specific options for Network T-Server for NGSN, when migrating to its latest release.

Table 90: Option Modifications in Network T-Server for NGSN

Option Name	Type of Change	Occurred in Release #	Details
pgf-debug Section			
pgf-debug	New	7.0	The section `pgf-debug` has been added.
debug	New	7.0	
allow_pstn_consult	New	7.1	
gli Section			
gli-link-proving-delay	Obsolete	7.5	
gli_server Section			
gli-n-servers	Obsolete	7.5	

Table 90: Option Modifications in Network T-Server for NGSN (Continued)

Option Name	Type of Change	Occurred in Release #	Details
gli_server_group_<n> Section			
gli-tls-cert	New	7.5	
gli-tls-cert-key	New	7.5	
gli-trusted-ca	New	7.5	
ASNSap Section			
codec-data-location-specified	Removed	7.6	
data-location	Removed	7.6	
property-map-location	Removed	7.6	
TServer Section			
gli_server_group_<*n*>	See Details	7.6	This option is undocumented in previous versions.
Timers Section			
RouteUsedTimeout N	ew	7.6	

Network T-Server for OPSI

Table 91 shows the modifications made to switch-specific options for Network T-Server for OPSI, when migrating to its latest release.

Table 91: Option Modifications in Network T-Server for OPSI

Option Name	Type of Change	Occurred in Release #	Details
pgf-debug Section			
pgf-debug	New	7.0	The section `pgf-debug` has been added.
debug	New	7.0	

Network T-Server for SR3511

Table 92 shows the modifications made to switch-specific options for Network T-Server for SR3511, when migrating to its latest release.

Table 92: Option Modifications in Network T-Server for SR3511

Option Name	Type of Change	Occurred in Release #	Details
TServer Section			
ivr-max-response-wait	Modified	8.0	Default value changed from `0` to `3600`.
router-max-response-wait	Modified	8.0	Default value changed from `0` to `10`.
reconnect-attempt-period	Modified	8.0	Default value changed from `15` to `5`.
no-error-is-success	Modified	8.0	Default value changed from `500` to `0`.
routing-point-call-model	Modified	8.0	Valid and default values changed to `true, false` from `yes, no`.
link-*n*-name	Modified	8.0	Default value changed from `No` default value to `link-tcp`.

Chapter

22 T-Server Migration Procedures

This chapter discusses the migration procedures for releases 6.x, 7.x, and 8.0 to 8.1 and contains the following sections:

Migration from Previous Releases

This section describes the migration procedures for T-Server from pre-8.1 releases. It covers the following topics:

Prerequisites for 8.1 Framework Environment

If you are migrating your entire existing Genesys Framework to the 8.1 release of Framework, you must upgrade your Configuration Layer components to 8.1 before you migrate your T-Servers. If you are only upgrading your T-Servers, there are no special steps you need to take with your existing Configuration Layer. In both scenarios, the steps for migrating T-Server are the same.

Licensing

Prior to migrating your T-Server, be aware that you need to take licensing issues into account. Starting with release 7.0, the licensing requirements for T-Server have changed from previous releases. Please refer to the *Genesys Licensing Guide* and your *T-Server Deployment Guide* for complete licensing information.

Starting with release 7.0, T-Servers refer to the license server for authentication. The new license server rules are described in the *Genesys Licensing Guide.*

Licensing Requirements for T-Server

The following are short descriptions of the issues you must consider when deploying your new licensing for T-Server:

- A stand-alone T-Server serving a single site requires licenses to register all DNs it monitors. Single-site licenses are also required for all Network T-Servers.
- T-Servers operating with the `hot standby` redundancy require a special CTI HA technical license, which allows for high-availability implementations in addition to regular T-Server licenses.
- T-Servers performing multi-site operations require licenses that allow for such operations in addition to regular T-Server licenses.
- Network T-Server for GenSpec has two new licensing requirements: NTS Deployment and IVR Treatment.

Licensing Prerequisites

Before starting your migration of T-Server:

1. Obtain appropriate license files for 8.1 T-Servers.
2. Install Licensing Manager.

Other Migration Information

Related migration information that may help you migrate T-Server is available elsewhere in this guide. See:

1. Chapter 2, “Licensing Migration,” on page 47
2. Framework migration information in Part Two of this guide
3. *Genesys Interoperability Guide*
4. Information on upgrades to other prerequisite Genesys components

T-Server Migration Procedures

Use the following two sections to assist you in performing a basic upgrade from pre-8.1 releases to 8.1 or rollback from release 8.1 to pre-8.1 releases of T-Server. For information about migrating the HA configurations, see “HA Environment Migration” on page 550.

T-Server Upgrade Procedures

To Upgrade T-Server

Perform the following steps for each T-Server `Application` object whose data was converted from pre-8.1 releases of Configuration Database:

1. Store the existing configuration option settings in a `*.cfg` file using the Export utility in Configuration Manager. Preserve this `*.cfg` file in a secure location in case you need to rollback later. Refer to *Framework 8.1 Configuration Manager Help* for instructions on using the Export utility.
2. Install a physical T-Server 8.1 application. For installation instructions, refer to the *Framework 8.1 Deployment Guide.*
3. Verify the parameters on the `Start Info` tab of the T-Server `Application` object in Configuration Manager—the T-Server working directory, executable name, and command-line parameters.
4. Specify any new configuration options on the `Options` tab of the T-Server Application object in Configuration Manager. See your specific *T-Server Deployment Guide* for complete details on options. Also see "Configuration Options Common to All T-Servers" on page 415 of this guide for notes on updates to options.
5. If you have not previously used the centralized-logging and alarm-signaling capabilities of the Management Layer, but would like to do so now, add a connection to Message Server on the `Connections` tab of the T-Server `Application` object in Configuration Manager.
6. If using Configuration Server Proxy for notifying this T-Server about configuration changes, add Configuration Server Proxy to the `Connections` tab of the T-Server Application object in Configuration Manager.

Refer to the "Starting and Stopping T-Server Components" chapter in your specific *T-Server 8.1 Deployment Guide* for startup instructions.

Note: Starting with release 7.6, the executable file for T-Server for Nortel Communication Server 2000/2100 renamed `ncs2000_server`.

For migration procedures in high-availability environment, see "HA Environment Migration" on page 550.

T-Server Rollback Procedures

To Rollback to Earlier Version

If you must return to your pre-8.1 Genesys installation:

1. Import the `*.cfg` file that has your pre-8.1 T-Server configuration options to restore previously configured settings. Refer to *Framework 8.1 Configuration Manager Help* for instructions on using the Import utility.
2. Delete any new connections to server applications you have configured on the `Connections` tab of the T-Server `Application` object in Configuration Manager.

3. Uninstall T-Server 8.1.

Known Migration Issues for Specific T-Servers

T-Server for Alcatel 4200/OXO

When migrating from releases 7.0 to 7.6, note the following:

- The 7.6 release of T-Server for Alcatel A4200/OXO includes a large number of architecture, coding, and feature changes which make high availability between a 7.0 and a 7.6 T-Server unsupportable.
- Genesys therefore does not support any high-availability functionality where a 7.6 and a 7.0 T-Server are configured as a high-availability pair.

T-Server for Alcatel A4400/OXE

When migrating from releases 7.x to 8.x, note the following:

- When performing an in-service upgrade from pre-7.x releases to 8.x and emulated agents are used in the environment, these agents must be logged out before switching over to the new T-Server, and then logged in again after the switchover.
- Genesys does not recommend performing an in-service downgrade (8.x to 7.x) in environments where emulated routing or outbound dialling using `TMakePredictiveCall` are used. The primary and backup T-Servers must both be of the same release family.

T-Server for Tadiran Coral

When migrating from releases 7.x to 8.x, note the following:

- The 8.0 release of T-Server for Tadiran Coral is not backward compatible with the 7.x release of T-Server.
- When performing an upgrade from 7.x to 8.0, the CTI Link must be updated to CSTA III. For this reason, a service interruption will be needed.
- There is no wizard available for the 8.0 Tadiran Coral T-Server.

T-Server for Mitel MiTAI

When installing the 8.0.100.xx release of T-Server for Mitel MiTAI, note the following:

- The Mitel SDK must be installed as directed by the Mitel installation documentation. See the *T-Server 8.0.100.xx installation procedure* in the *Framework 8.0 T-Server for Mitel MiTAI Deployment Guide* for details.

Deploying T-Server 8.x in 6.x Environment

T-Server 8.1 supports deployment into an environment that will continue to use 6.x, 7.1, 7.2, 7.5, 7.6, and 8.0 Genesys components. The steps required for this type of deployment are the same as those you must take to install T-Server in a 8.1 environment. The differences in the mixed environment case determine how you must deploy your licensing for T-Server.

Note: If you are running your T-Servers in either `hot` or `warm standby` mode, then the primary and backup T-Servers must both be of the same release family.

Licensing Issues for T-Server 8.x in a 6.x Environment

While the steps for migrating T-Server to a 8.x or a mixed environment are generally the same, there are a few licensing issues that you need to consider for the mixed environment.

License Section in Options Tab

The `License` section in the `Options` tab of the T-Server `Application` object is not required for backward compatibility in the 6.x environment. However, in the event that you need to specify numbers of licenses, you may add that section. See the *Framework 8.1 Deployment Guide* for full details.

To Deploy Licensing for T-Server

There are two ways to deploy licensing for T-Server 8.x in a 6.x environment:

1. Use one License Manager (LM) 8.3 or higher for the whole environment

   or

2. Use two separate LMs—one for 6.x applications and another one for 8.x applications. In this case, retain your existing 6.x license, and order 8.x licenses for the appropriate servers.

Note: Genesys 5.x and 6.x applications require FLEXm License Manager 6.1 or higher; Genesys 8.x applications require FLEXm License Manager 8.3 or higher; and only Genesys applications for RedHat Linux Enterprise require FLEXm License Manager 9.5.

If you choose option Number 1 above (use one LM 8.3), select one of the following procedures:

a. Order T-Server 8.x licenses for the same host where your LM is running.
b. Update the license file with the new features for your new T-Server.
c. Stop the old LM and start LM 8.3.
d. Install LM 8.3. Configure it in the same way you configured your previous LM, using the same port and license file.
e. Install T-Server.
f. Start T-Server.

or

a. Order T-Server 8.x licenses for any other hosts where your LM 8.3 will be running.
b. Install LM 8.3.
c. Run LM 8.3 with the new license file (containing licenses for T-Server 8.x).

d. Install T-Server.

e. Start T-Server.

If you use two or more T-Servers, and these T-Servers share licenses, create a new section called `license` on the `Options` tab for each T-Server `Application` in Configuration Manager before you start the T-Servers. Configure the `license` section options before starting T-Server. See the *Genesys Licensing Guide* and "T-Server Common Configuration Options" section in your *T-Server 8.1 Deployment Guide* for information on configuring license options.

Note: Since licensing is based on DNs in use, be sure to configure in the Configuration Database all DNs that agents use (ACD Positions Extensions) and that T-Server should control.

HA Environment Migration

Depending on the switch type, one of the following cases will apply:

- T-Servers that do not use HA Proxies
- T-Servers that use HA Proxies in pre-8.1 and continue to use them in 8.1
- T-Servers that used HA Proxies in previous releases but no longer use them

Note: To verify if your T-Server still requires HA Proxy, refer to the switch-specific *T-Server Deployment Guide*.

T-Servers That Do Not Use HA Proxies

Starting with the backup T-Server, follow the upgrade steps described in "T-Server Migration Procedures" on page 546 for each T-Server in the redundant pair. The migration will be completed once you have upgraded and restarted both the primary and backup T-Server.

T-Servers That Use HA Proxies

Starting with the backup T-Server, follow the upgrade steps described in "T-Server Migration Procedures" on page 546 for each T-Server in the redundant pair. After this is done, upgrade your HA Proxy components. The T-Servers and HA Proxies must be of the same release family.

Notes: For T-Server for Nortel Communication Server 2000/2100 only.

- Before migrating from 6.x-7.1 to 7.2 or later, you need to stop both primary and backup T-Servers.
- Starting with release 7.6, T-Server supports 7.5 HA Proxy.

T-Servers That Used HA Proxies in Previous Releases but No Longer Use Them

Starting with the backup T-Server, follow the upgrade steps described in "T-Server Migration Procedures" on page 546 for each T-Server in the redundant pair. After this is done, follow these steps to complete the migration:

1. Stop all HA Proxies.

2. Stop all T-Servers.
3. For Avaya Communication Manager only: Configure links on the switch to connect to the hosts where the 8.x T-Servers will run.
4. Reconfigure each T-Server to connect directly to their respective link:
   a. Remove the HA Proxies from the `Connections` tab.
   b. Create a CTI-Link section on the `Options` tab.
   c. Configure the `link-`*`n`*`-name` option to point to the CTI-Link section.

   Note: For T-Server for Avaya Communication Manager only. Each T-Server should be configured to connect to a different link.

5. Start the 8.1 T-Servers. (Refer to the "Start and Stop T-Server Components" chapter in your specific *T-Server 8.1 Deployment Guide* for startup instructions.)

Genesys

Part

6 Migrating from IP Media eXchange to SIP Server

This section describes the IP Media eXchange migration.

- Chapter 23, "IPMX 7.0.2 Migration to SIP Server 7.2," on page 555 describes how to migrate IP Media eXchange (IPMX), and upgrade the components that belong to IPMX, after the successful migration of Framework.
- Chapter 24, "Introduction to IP Media eXchange Migration," on page 577, describes how to migrate 7.0.2 IP Media eXchange (IPMX) to the new 7.2 Genesys SIP Server architecture and how to upgrade the components that belong to the new SIP Server architecture, after the successful migration of Framework.

Chapter

23 IPMX 7.0.2 Migration to SIP Server 7.2

This chapter describes how to migrate Genesys IPMX to the new Genesys 7.2 SIP-based architecture and how to upgrade the components that belong to IPMX after Framework has been successfully migrated. Information in this chapter is divided into the following topics:

Overview

The migration of the 7.0.2 IPMX solution to the 7.2 SIP Server solution creates a new environment that functionally resembles the existing one, but has a different structure.

Most of the 7.0.2 (or previous) IPMX applications continue to be part of the 7.2 SIP Server solution. However, in 7.2, these applications play a much different role as the functional relationships and physical connections are different. You may want to reconsider the network topology of your implementation before you migrate your existing IPMX to the SIP Server-based implementation due to the change in roles and protocols of the IPMX solution components. See “Component Changes from 7.0.2 to 7.2” on page 557 for more information.

The migration procedure involves two steps:

- Reconfiguration of the endpoints and devices.
- Deployment of the new Genesys software and the creation of its new configuration environment.

You should understand the scope and the need of reconfiguration of the existing endpoints and devices before migrating the Genesys IP server applications. The following should be taken into consideration:

- SIP endpoints and devices originally configured to use DMX as their SIP proxy/registrar should be reconfigured to use the SIP Server directly.
- H.323 endpoints and devices that can use SIP are recommended to be reconfigured to use SIP and to use SIP Server as it's proxy/registrar.
- H.323 endpoints and devices that do not support SIP will use their original DMX as its gatekeeper/gateway, which in the new environment acts only as the gateway between H.323 and SIP networks.

Note: You may want to reconsider the network topology and the host allocation of the new Genesys server components used for your implementation.

The SIP Server 7.2 application does not necessarily have to be installed on the same host as where the original SMCP T-Server was installed.

You will want to decide on the number of DMX modules that you want to retain as H.323-to-SIP gateways, their host allocations, their ports, and their assignment of H.323 endpoints and devices.

Furthermore, it is likely that your 7.2 Genesys SIP Server solution will employ a significantly smaller number of Stream Manager applications since they no longer pass-through RTP/RTCP traffic and are only used for call treatment and conferencing services.

General Instructions

This section discusses the Required Framework Components, Licensing, and Component Changes from 7.0.2 to 7.2.

Required Framework Components

Genesys SIP Server solution requires these Genesys Framework components (see important note below about "Licensing" requirements):

- DB Server
- Configuration Server
- Configuration Manager
- Stat Server
- License Manager

If you are using Genesys Universal Routing Solution (Enterprise Routing and/or Network Routing), you will also need the Universal Routing Server (URS) and the Interaction Routing Designer.

If you have not already installed the DB Server and/or Stat Server for your solution, see the *Framework 7.2 Deployment Guide.*

Licensing

SIP Server uses the Genesys License Control System described in the *Licensing Genesys Products* document on the Documentation Library DVD. The licensing requirements specified in this document must be met before installing/configuring Genesys SIP Server.

A major change with Genesys Licensing is that URS licensing is no longer based on the number of instances of Universal Routing Server. Instead URS licensing is based on routing seats. URS licensing controls the number of active routing targets within concurrently active sessions. The number of currently activated routing targets cannot exceed the limit in the license file.

Note: URS High Availability (HA) mode now requires licensing.

Component Changes from 7.0.2 to 7.2

The Genesys SIP Server solution has been called IP Media eXchange (IPMX) or Voice over IP (VoIP) Option in previous releases. SMCP T-Server has been replaced by SIP Server. There are no changes to the names of the two IPMX components in this 7.2 release:

- Distributed Media Exchange (DMX)
- Stream Manager (SM)

However, each of these applications has a new role and contains new functionality in the 7.2 release. See the corresponding Deployment Guide for information about each component's functionality and option changes.

SIP Server

SIP Server 7.2 implements and extends the functionality formerly performed by the SMCP T-Server and DMX. It replaces both the SMCP T-Server as an application server and DMX as the switching component. Unlike SMCP T-Server, SIP Server directly interfaces with SIP endpoints and devices. But, it does not work directly with H.323 endpoints and devices.

DMX

DMX 7.2 no longer performs call switching and conferencing. It performs only as a H.323-to-SIP gateway in order to support endpoints and devices that cannot be reconfigured to use the SIP protocol. Therefore, DMX is no longer needed in a pure SIP environment.

DMX 7.2 performs the following functions:

- Negotiates codecs and converts protocols between SIP and endpoints using H.323 (H.225/245).
- Enables the exchange of audio and video media types across many networks, such as PSTN, PBX, LAN, and WAN.
- Performs in `Traditional` or `Load Balancing` modes.

Figure 14 illustrates the new role of DMX within the SIP Server solution architecture in release 7.2.

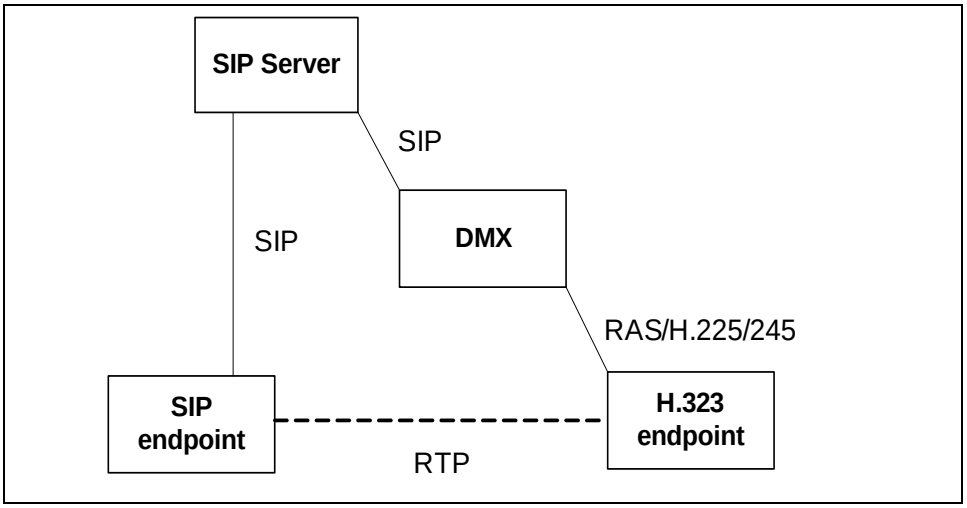

Figure 14: Changes in Architecture for 7.2 SIP/DMX Applications

Stream Manager

Previously, Stream Manager was a mandatory component controlled by DMX through a proprietary protocol. The major role of Stream Manager was passing the RTP/RTCP streams between the endpoints, with the exception of DMX when running in SM-bypass mode. As a secondary functionality, Stream Manager assisted DMX in performing call treatments and conferencing services.

Stream Manager 7.2 is used only as a media server. It generates and processes RTP streams to perform the following functions:

- Playing and recording announcements
- Recording announcement and conference call streams into files
- Basic conference call support
- Silent voice monitoring
- Whisper coaching
- DTMF support

Stream Manager 7.2 is controlled directly by the SIP Server through the SIP extension NETANN (Basic Network Media Services with SIP).

Figure 15 illustrates the applications that interact with Stream Manager to process call treatments.

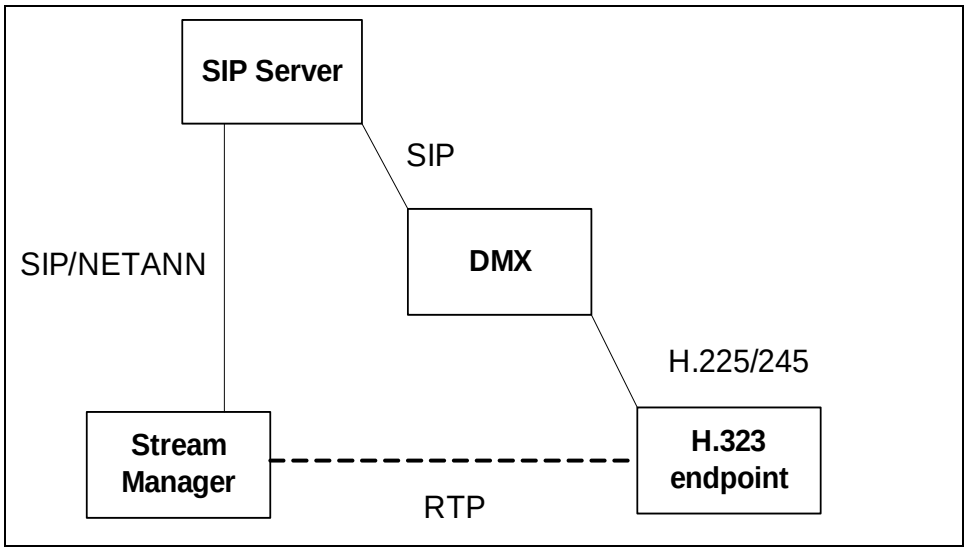

Figure 15: Stream Manager as a Call Treatment Server

Figure 16 illustrates Stream Manager's conference functions.

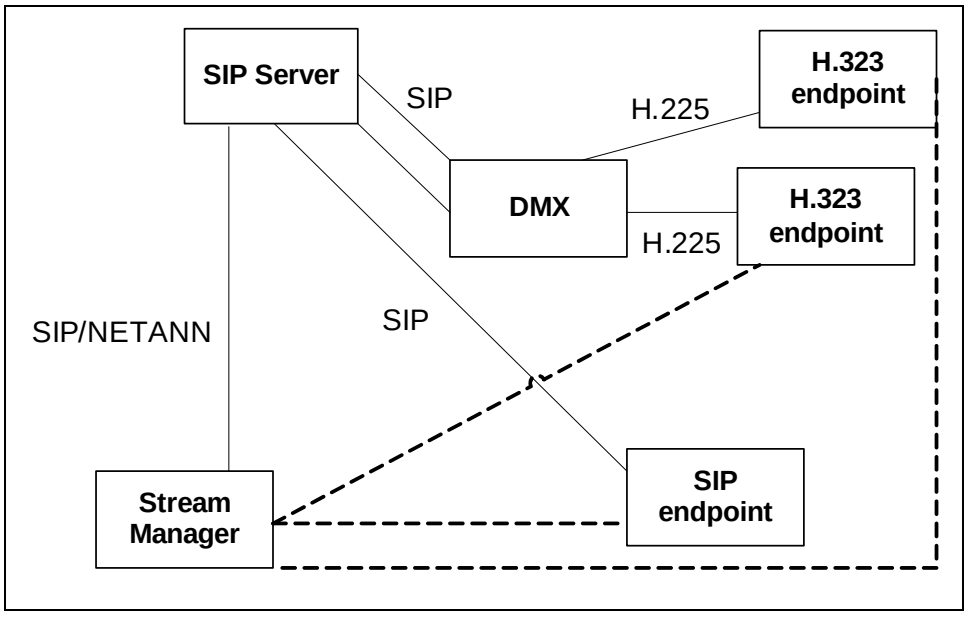

Figure 16: Stream Manager as a Conference Server

Migration from 7.0.2 to 7.2

The IPMX Upgrade procedure is intended for the creation of a configuration environment for the new SIP Server solution based on the existing IPMX configuration environment.

The migration of the Genesys IPMX software and configuration environment is guided by the IPMX Upgrade Wizard. The Wizard guides you through the steps to create a configuration environment for the new SIP Server solution, based on the existing IPMX configuration environment. The Wizard also modifies the configuration of several other Genesys solutions and components originally integrated with IPMX so that they integrate with the newly-deployed SIP Server solution in the same manner as they initially worked with the IPMX.

While configuring new and upgrading existing applications, the Wizard deploys and pre-configures installation packages for the new and upgraded applications. As you complete the configuration upgrade, use these installation packages to install new or upgrade existing software components.

Migration Procedure

Please complete the following recommendations before starting the Wizard:

- Familiarize yourself with the functionality and general deployment procedures of the 7.2 SIP Server, DMX, and Stream Manager applications. See the *Framework 7.2 SIP Server Deployment Guide* and *Framework 7.2 Stream Manager Deployment Guide* for more information about these components.
- Identify the following in your existing implementation:
  - Your current IPMX network topology.
  - Host allocations of the existing IPMX components.
  - The types, functionalities, and protocols that IPMX uses to interoperate with the endpoints and devices.
- Consider reconfiguring the H.323 endpoints end devices to use SIP Server.
- Plan your new SIP Server solution network topology and the host allocation of the new server components.
- Complete the migration to Framework 7.2.
- **Back up your configuration database prior to migration.** Use your database tools to do this.

Installing the Wizard

The following steps needs to be completed before you proceed:

- Install the Common Wizard Componenet Set from the Management Framework DVD.
- Install the SIP Server Configuration Wizard from the SIP Server DVD.
- If you are using Stream Manager, installed the Stream Manager Configuration Wizard from the Stream Manager DVD.

Starting the Wizard

Use the following steps to start the Wizard:

1. Launch Wizard Manager using the Genesys Wizard Manager shortcut in the Genesys Solutions\Framework folder of the Start menu.

Warning! You should not cancel, close, or terminate the Wizard until the Wizard completes the migration. Doing so will leave the configuration in an incomplete state that requires you to restore the original content of the configuration database from the backup you created.

2. Log into the Configuration Layer. Your account credentials must allow full control over the configuration objects under the Environment and Resources (in a single-tenant configuration environment) or the Tenant folders (in a multi-tenant configuration environment).
3. Check Display Individual Applications on the Wizard Manager's Upgrades page,
4. Select an existing SMCP T-Server application object in the list of applications.
5. Click the Upgrade button.

Note: If you have Configuration Manager installed, you can also launch the IPMX Upgrade Wizard from the Configuration Manager by right-clicking the SMCP T-Server application object and then selecting Wizard->Configure in the context menu, then pressing the Upgrade... button on the General page of the SMCP T-Server Properties dialog.

Warning! Avoid making any other changes in the configuration database while performing the upgrade using the Wizard.

Using the Wizard

You will perform the following major steps of the IPMX upgrade procedure under the Wizard's guidance.

- Create configuration objects for the new SIP Server configuration environment based on the existing IPMX configuration.
- Configure and deploy the SIP Server.
- Replicate the telephony configuration objects (such as DNs and Agent Logins) into the SIP Server environment.
- Manage DMX modules by upgrading and converting them for their new role as H.323-to-SIP gateways.
- Manage DN objects that represent H.323 endpoints and devices by assigning them to DMX gateways or converting them to SIP Server.
- Manage Stream Manager applications by upgrading and converting them for their new role as media servers.

The following sections provide a more detailed description for each of these steps.

Creating the SIP Server Solution Configuration Objects

The Wizard uses the SMCP T-Server that you selected for upgrade and its associated SMCP Switch as the base to create new configuration objects for the SIP Server solution. The new configuration objects are:

- `SIP Switch Switching Office` object: A virtual switching office that represents the entire SIP telephony solution and may contain configuration items common for all SIP Switches within your solution.
- `Switch` object: A virtual switch containing telephony configuration for a single SIP Server.
- `SIP Server Application` object: An application containing the configuration for the SIP Server application.

These three new objects will correspond to similar objects from your existing IPMX implementation. The Wizard closely matches the configuration of the new SIP Server objects so that the functionality of the new solution will be similar to the existing IPMX configuration.

Deploying and Configuring a New SIP Server Solution

The next step in the deployment of the new SIP Server solution is using the combined Switch and SIP Server Application Wizard. SIP Server is deployed by the same Configuration Wizard that is used for deploying a completely new SIP Server solution.

Note: This document is not intended for complete description of the SIP Server deployment. Please refer to the *Framework 7.2 SIP Server Deployment Guide* for detailed information about SIP Server functionality, configuration, and deployment processes.

While navigating through its windows, you will perform the following functions:

- Complete the configuration of the `Switch` object.
- Deploy the SIP Server installation package.
- Review the new features and configure major settings of the new SIP Server.
- Have the ability to review and customize SIP Server's advanced options.
- Commit the new objects into the configuration database.

Note: The difference between this deployment and the IPMX solution upgrade is that in order to match existing IPMX functionality, the initial settings and default values of the configuration options are initialized based on the existing IPMX solution. The SIP Server Wizard is aware of the IPMX upgrade process, so it may perform differently and produce a configuration different from the deployment of a new SIP Server.

The sections below focus on topics specific to an IPMX solution upgrade.

SIP Server Host

By default, the SIP Server Wizard suggests to install the SIP Server on the host where the original SMCP T-Server is installed. Although this is recommended for most cases, it is not required. As the SIP Server combines the functionality of the SMCP T-Server and DMX, in certain cases it is recommended to deploy SIP Server on the host running one of the DMX modules, especially if the majority of the endpoints communicate with DMX using SIP Server. Installing SIP Server on this host will save you from reconfiguring the ability of these endpoints to contact the server on another host.

Listening Ports

The port you specify in the `Server Information` Wizard page is the port that Genesys T-Server client applications will use to connect to SIP Server. By default, the Wizard suggests using the same T-Server client port as the original SMCP T-Server. It is recommended to leave it at this default value so that you will not need to reconfigure the client applications.

Note: If you are installing SIP Server on the host of the original SMCP T-Server and use the default port, the Wizard will warn you about the reuse of the same port by a different application. This is OK, as you are not going to run both SMCP and SIP Servers concurrently.

The SIP port you specify on the `Listening Ports` Wizard page defaults to the setting of the original DMX application port that was installed on the same host as the original SMCP T-Server. This saves you from reconfiguring SIP endpoints that were initially configured to work with this DMX application.

Note: As in the case of the T-Server client port, you will be warned of port reuse. The new SIP Server can not be run concurrently with the original DMX.

Installation Package

The Wizard asks you for the product DVD containing the SIP Server when deploying the SIP Server Installation Package. Ensure that the version is 7.2 or later of the SIP Server product DVD. The Wizard will not be able to configure earlier versions of SIP Server to replace the IPMX solution.

Note: The same copy of the Installation Package that is created by the Wizard should be used to install both primary and backup SIP Servers.

Backup Server Information

You may optionally deploy and configure a backup SIP Server, regardless if the original SMCP T-Server was deployed in the High Availability configuration or not. If you choose to deploy a backup SIP Server, the Wizard will create the backup SIP Server application object with the same configuration options as the primary server. You will be asked separately for the settings that differ between the primary and backup servers.

Warning! You should install the primary and backup SIP Servers on hosts running the same type and version of operating system due to the nature of the SIP Server High Availability implementation.

Common T-Server Options

Configuration options that are common for all T-Servers are copied from the corresponding options of the original SMCP T-Server. This process ensures that the existing functionality of your IPMX solution is retained. Common T-Server options new for the 7.2 release are initially set to their default values.

New SIP Server Functionality

The SIP Server Wizard will ask you to review the configuration options regarding major T-Server functionality and suggest that you configure any options that were not previously available in the existing IPMX solution.

Advanced Options

The Wizard will suggest that you review the complete list of configuration options it created for the SIP Server application object in the `Advanced Properties` Wizard window before committing this information into the configuration database. Although the Wizard is designed to create correct functional configuration in the majority of cases, you may still need to adjust some options specific for your implementation and environment. The Wizard does not enforce limitations on most of the options presented on the `Advanced Property` window; nor does it enforce their integrity.

Note: Although the Wizard presents you with a short description for most of the configuration options, you should consult the *Framework 7.2 SIP Server Deployment Guide* for a detailed description of each option, and also consult the SIP Server Release Notes and Release Advisory for any last-minute changes or additions that could not be part of the Wizard due to time limitations.

Replicating and Converting Telephony Objects

The next step performed by the IPMX Upgrade Wizard is to replicate and convert the following telephony objects into the new SIP `Switch` object from the original IPMX configuration. This task is completely automated.

Telephony objects such DNs and Agent Logins define the telephony configuration of your IP solution. The Upgrade Wizard replicates and converts these objects from their original IMPX configuration into the new SIP Switch using the same configuration folder structure defined in the original Voice over IP SMCP Switch.

Agent Login codes and DN numbers are retained from the original configuration with one exception: SIP Server DNs do not contain the `@` symbol in their numbers so it is replaced with an underscore. Aliases of the new DNs are also retained from the existing ones. This ensures that the existing references to the DNs by Number or Alias will continue to function.

Notes: In certain cases some original telephony objects may be modified in order to comply with integrity rules enforced by the Configuration Server. If this occurs, a corresponding warning record is added into the Wizard log.

Any original telephony object configuration settings that are not recognized by the Wizard are copied into new objects without change.

The DN object's `Override` field that was used by IPMX for addressing and keeping DN-specific behavior modifiers is copied into the new SIP Server DNs. However, the value and its associated functionality is not recognized by SIP Server. The value of the `Override` field is retained for reference only and for possible future use. Some elements of the original content of this field current cannot be mapped into the configuration of the SIP Server DNs. The DN-specific behavior defined by these modifiers may not be exactly duplicated in the SIP Server environment.

References to the Telephony Objects

Several types of configuration objects that initially referred to their original telephony objects are updated to their corresponding new objects. The following objects and references are updated:

- Persons (Agents), Login IDs
- Places, assigned DNs
- DN Groups, assigned DNs
- Agent Groups, Place Groups, DN Groups, Origination DNs
- DNs, Default DNs
- Treatments, Destination DNs
- IVR Ports, Associated DNs
- Campaigns, Campaign Groups, Voice Transfer Destination

The new telephony objects are added to the list in one-to-many references. The references to old objects will be automatically deleted by Configuration Server

when you delete the Voice over IP SMCP Switch. In objects with one-to-one references, the references to the IPMX objects are replaced with the references to the new SIP Server objects.

Managing DMX Servers

DMX server no longer perform call switching and conferencing in the SIP Server architecture. It only performs as a H.323-to-SIP gateway in order to support endpoints and devices that cannot be reconfigured to use SIP.

Note: It is recommended that you reconfigure all endpoints and devices to use SIP and interoperate with the SIP Server directly in order to avoid protocol conversion overhead. You will no longer need DMX server if you already have or plan to switch to a pure SIP environment.

You will need to upgrade the DMX modules in `standalone`, `dual` and `client` modes to support the associated endpoints/devices if you plan to continue using endpoints and devices with the H.323 protocols. You will also need to upgrade related DMX servers in gatekeeper mode. DMX servers that you no longer plan to use should be marked as `Disabled`. The endpoints and devices originally associated with these DMX servers should be either reassigned to the remaining DMX servers or reconfigured to connect to SIP Server directly using SIP.

DMX no longer participates in call conferencing services. This functionality is now provided by Stream Manager servers that are directly controlled by the SIP Server. You should not upgrade any DMX servers that are in MCU mode.

The DMX Modules window in the IPMX Upgrade Wizard lists all the DMX servers associated with the original SMCP T-Server. The page requires you to either upgrade each DMX or disable it. Disabling it changes the corresponding DMX application object in Configuration Manager as `Disabled`.

Upgrading DMX

The DMX application is upgraded by the DMX Wizard. This is the same Configuration Wizard used for deploying DMX servers within the new SIP Server solution.

Note: This document is not intended for complete description of the DMX deployment. Please refer to *Part Three: DMX Reference Information* in the *Framework 7.2 SIP Server Deployment Guide* for more information about DMX functionality within the SIP Server solution, and its configuration and deployment processes.

The major changes for DMX servers within the SIP Server solution are as follows:

- DMX 7.2 no longer accepts connections from T-Server and no longer interoperates with T-Server through SMCP. The interoperation with the SIP Server is done through the SIP protocol.
- DMX 7.2 no longer uses Stream Manager servers.
- DMX 7.2 no longer interoperates with SIP endpoints and devices, except for SIP Server itself.

The DMX association with SIP Server is determined by the presence of a connection to SIP Server in the `Connections` tab of the `DMX` application object. This connection in the configuration object does not correspond to any permanent TCP connection between the two servers. It is used only to determine the proper destination for calls from a H.323 to a SIP environment.

DMX is treated as a regular gateway by the SIP Server. As with any other gateway, DMX should be represented in the SIP Server configuration as a `Trunk` DN, specifying the DMX host and SIP port in its `contact` option in the `Annex` tab.

Besides deployment of the new installation package, the DMX Upgrade Wizard makes changes in the configuration required for the new DMX servers to interoperate with the SIP Server. The Wizard will perform the following:

- Remove obsolete DMX options.
- Replace the connection to/from the SMCP T-Server with the one to the SIP Server.
- Create the Trunk DN representing DMX to the SIP Server as the gateway for the DMX in stand-alone, dual and client modes.
- Disable Stream Manager applications initially associated with the DMX.

Assigning H.323 DNs

This step is required only if the original IPMX configuration contained DNs which represent H.323 endpoints or devices.

The IPMX configuration does not have information about the assignment of these endpoints/devices to the DMX modules. However, this information is required in the SIP Server solution. Each H.323 DN representing an endpoint or device that you plan to keep should explicitly be assigned to one of the retained DMX servers. SIP Server will interface with each endpoint/device through the assigned DMX server. DNs that remain unassigned to any DMX server will be considered as SIP DNs. Any corresponding endpoint/devices should be reconfigured to use SIP and SIP Server as the proxy/registrar.

When you assign each DN into the configuration, the Wizard updates the DN `contact` option in the `Annex` tab with host and port information of the assigned DMX. The address of the endpoint/device itself is moved to the `Request-URI` entry.

Managing Stream Managers

Stream Manager servers were mandatory components controlled by DMX through a proprietary protocol in IPMX. With the exception of DMX running in the SM-bypass mode, the major role of Stream Managers was passing RTP/RTCP streams between endpoints. As a secondary functionality, Stream Manager assisted DMX in performing call treatments and conferencing services.

In a 7.2 SIP Server environment, RTP/RTCP traffic in two-way calls pass directly between the endpoints. Stream Manager is used only as a media server. It generates and processes RTP streams to perform the following functions:

- Playing and recording announcements.
- Recording announcement and conference call streams into files.
- Basic call conference support.
- Silent voice monitoring.
- Whisper coaching.
- DTMF support.

If you are not planning to use any of these functionalities, there is no need to upgrade Stream Manager. You may simply mark their application objects as `Disabled` within the Wizard, and later remove the application objects in Configuration Manager and then uninstall the Stream Manager applications from their host computers.

The Stream Manager window in the IPMX Upgrade Wizard lists all Stream Managers configured as part of the original IPMX solution. The window requires you to either upgrade each Stream Manager or disable it. Disabling simply marks corresponding application object in the configuration as `Disabled`. This acknowledges that this application will no longer be used.

Upgrading Stream Manager

The Stream Manger application is upgraded by the Stream Manager Wizard.

Note: This document is not intended as a complete description of the Stream Manager deployment. Please refer to the *Framework 7.2 Stream Manager Deployment Guide* for detailed information about Stream Manager functionality within the SIP Server solution, and its configuration and deployment process.

Although Stream Manager 7.2 retains its earlier mode of operation in which the client controls Stream Manager's operation through the permanent TCP connection using a proprietary protocol, this particular mode is limited in its functionality and is not recommended for the 7.2 SIP Server environment. Stream Manager should be configured as a stand-alone media server that accepts SIP requests from one or more clients using the SIP extension NETANN (Basic Network Media Services with SIP).

When upgrading Stream Manager in the SIP Server solution, the Stream Manager Wizard will ask you to specify the SIP port that the SIP/NETANN requests will be accepted from SIP Server. Make sure that no other application on the Stream Manager's host uses this port when specifying the SIP port.

Note: The majority of SIP applications, including SIP clients, use the default SIP port 5060.

Stream Manager is treated by SIP Server as an announcement server and a conference server. Each of these services should be represented in the SIP Server configuration by the `Voice over IP Service` DN with the `service-type` option containing a value of `music` and `mcu` accordingly.

The Stream Manager Wizard creates both these DNs and populates its `contact` option in the `Annex` tab with Stream Manager's host and port settings.

Completing the IPMX Upgrade Wizard

When the Wizard completes the upgrade, it presents a log listing any newly-created or updated configuration objects. The log may also contain warnings about circumstances that require additional attention.

The Upgrade Wizard does not remove any objects from the original configuration. Instead, it marks any unused objects as `Disabled`. After you have completed the migration and installation of all software components for the new solution and ensured that it is functional, you may want to cleanup the configuration by removing:

- Any obsolete objects, such as any application objects deleted by SMCP T-Server.
- Any DMX servers not upgraded and their associated Stream Managers.
- The original SMCP Switch together with its telephony objects may be also deleted. This will automatically remove any references to its telephony objects retained by the Upgrade Wizard in the rest of the configuration.

Rollback Instructions

The migration procedure not only creates a new configuration environment for the SIP Server solution, but it modifies the configuration of the existing IPMX solution by disabling its components. The Wizard also updates several configuration objects relevant to other Genesys solutions and components in order to integrate them with the new SIP Server solution.

The Wizard makes several mutually-dependent changes to many objects in the configuration database. The Wizard does not support the rollback of the changes it makes if it is cancelled during the migration process.

If for any reason the resulting configuration is not acceptable, the only way to rollback the changes made by the Wizard is to restore the configuration

database content from the database backup made before the Wizard was launched. Perform the following steps to restore the database:

1. Stop Configuration Server.
2. Restore the configuration database from the backup using your database management tools.
3. Restart Configuration Server.

Changes From Previous Releases

The following functionality will change from the previous release of IPMX after the Wizard has been run:

- SIP Server does not support a MCU device configured with the H.323 protocol. Previously in IPMX 7.0.2, a MCU device configured with the H.323 protocol was supported.
- DTMF tones produced from a SIP endpoint are not supported. Previously in IPMX 7.0.2, DTMF tones were supported when the option `media-proxy` was set with a value of `1`.
- Remote 3pcc answer is not supported when other features associated with with the `call-mode` option are modified by the Wizard. Previously in IPMX 7.0.2, remote 3pcc answer was supported when the option `call-mode` was set with a value of `R` for a DN.

Table 93, and Table 94 list all changes in the configuration options for the DMX and Stream Manager components. All new options are optional and should be set to default values if they are not configured.

Table 95 on page 572 displays a list of SIP Server option value differences between the SIP Server default value and the default value set by the Upgrade Wizard.

The following table lists the DMX option changes:

Table 93: DMX Option Changes

Current Option Name	Type of Change	Change Occurred Version
amd-mode	new option	7.2
delay-own-tcs	new option	7.0
dtmf-sip	new option	7.0
leg-record-timeout	obsolete option	7.2
leg-regular-timeout	obsolete option	7.2

Table 93: DMX Option Changes (Continued)

Current Option Name	Type of Change	Change Occurred Version
-mcu	obsolete option	7.2
MediaWaitForConnect	obsolete option	7.2
progress-inband	new option	7.0
silence-suppression	new option added to x-config section	7.0
sip-port	new option	7.0
sip-transport	new option	7.0
t120	obsolete option	7.2
video-codec	new option added to x-config section	7.0

Table 94 lists the Stream Manager option changes:

Table 94: SM Option Changes

Current Option Name	Type of Change	Change Occurred Version
sip-port sip-default-annc sip-annc-codecs sip-conf-codecs sip-http-codecs	new options	7.2
rtp-stream-delay file-cache-size audio-file-format	new options	7.2
log-trace-flags	new option	7.2
sip-h261-fmtp sip-h263-fmtp	new options	7.2
call-address	new $AUTO value	7.2

Table 94: SM Option Changes (Continued)

Current Option Name	Type of Change	Change Occurred Version
debug-level -pc mixer-buffer-range	obsolete options	7.2
max-record-file-size	new option	7.0
max-record-silence	new option	7.0
max-record-time	new option	7.0
-pc	obsolete command line option	7.2
rtcp-inactivity-timeout	new option	7.0
rtp-ip-precedence	new option	7.0

Table 95 lists SIP Server options (and default values, where specified) and the value change after the Upgrade Wizard:

Table 95: Upgrade Wizard SIP Server Option Changes

SIP Server Option	Upgrade Wizard Default Value
sip-port	Uses DMX: x-config\sip-port
sm-port	Uses DMX: x-config\sm-port
audio-codecs	Uses DMX: x-config\audio-codec. 1: PCMU 2: PCMA 3: G723 4: G729 8: GSM
ring-tone = music/ring_back	Uses value from SMCP TServer\ring-tone
busy-tone = music/busy_5sec	Uses value from SMCP TServer\no-answer-5sec-tone

Table 95: Upgrade Wizard SIP Server Option Changes (Continued)

SIP Server Option	Upgrade Wizard Default Value
fast-busy-tone = music/atb_5sec	Uses value from SMCP TServer\fast-busy-tone
silence-tone = music/silence	Uses value from SMCP TServer\silence-tone
collect-tone = music/collect	Uses value from SMCP TServer\collect-tone
default-music = music/on_hold	Uses value from SMCP TServer\hold-music
sip-enable-moh = false	If SMCP TServer\hold-music is specified, then the value is true. Otherwise, the value is false.
wrap-up-time = 0	Uses value from SMCP T-ServerServer\after-call-work
inbound-bsns-calls = false	true (SMCP T-Server treats all calls as business)
outbound-bsns-calls = false	true (SMCP T-Server treats all calls as business)
internal-bsns-calls = false	true (SMCP T-Server treats all calls as business)
unknown-bsns-calls = false	true (SMCP T-Server treats all calls as business)
agent-strict-id = false	Uses value from SMCP TServer\login-verify
inherit-bsns-type = false	false (SIP Server default)
legal-guard-time = 0	If the value of the option TServer\notready-after-acw is false, then the new value is 0. Otherwise, the new value is 30.
notrdy-bsns-cl-force-rdy = false	false (SIP Server default)
timed-cwk-in-idle = true	false (There is no manual wrapup timer in SMCP T-Server.)
cwk-in-idle-force-ready = true	false (There is no manual wrapup timer in SMCP T-Server.)

Table 95: Upgrade Wizard SIP Server Option Changes (Continued)

SIP Server Option	Upgrade Wizard Default Value
agent-no-answer-timeout = 15	Uses value from SMCP TServer\acdq-rna-timeout
extn-no-answer-timeout = 15	Uses value from SMCP TServer\acdq-rna-timeout
posn-no-answer-timeout = 15	Uses value from SMCP TServer\acdq-rna-timeout
recall-no-answer-timeout = 15	Uses value from SMCP TServer\acdq-rna-timeout
agent-no-answer-action = none	none (SIP Server default)
agent-no-answer-overflow =	recall (The only action in SMCP T-Server.)
extn-no-answer-overflow =	recall (The only action in SMCP T-Server.)
posn-no-answer-overflow =	recall (The only action in SMCP T-Server.)
nas-private = false	true (There are no private calls in SMCP T-Server.)
predictive-call-router-timeout = 20	20 (SIP Server default)
prd-dist-call-ans-time = 0	0 (SIP Server default)
max-pred-req-delay = 3	3 (SIP Server default)
default-dn =	Uses value from SMCP T-Server\inbound-default-dn
am-detected = drop	connect (The default SMCP T-Server behavior.)
fax-detected = drop	connect (The default SMCP T-Server behavior.)
external-registrar =	(empty) (SIP Server default)
internal-registrar-enabled = true	true (SIP Server default)
internal-registrar-domains =	(empty) (SIP Server default)

Table 95: Upgrade Wizard SIP Server Option Changes (Continued)

SIP Server Option	Upgrade Wizard Default Value
rq-expire-tmout = 32000	32000 (SIP Server default)
call-rq-gap = 0	0 (SIP Server default)
sip-hold-rfc3264 = false	false (SIP Server default)
dtmf-payload = 101	Uses value from SMCP TServer\dtmf-payload-type
router-timeout = 10	10 (SIP Server default)
sip-block-headers =	SIP Server default
make-call-alert-info =	true (SIP Server default)
sip-enable-100rel = true	true (SIP Server default)
ringing-on-route-point = true	true
session-refresh-interval = 1800	1800 (SIP Server default)
max-legs-per-sm = 0	0 (no limit in SMCP T-Server)
owerride-to-on-divert = false	SIP Server default
unknown-xfer-merge-udata = false	SIP Server default

Chapter

24 Introduction to IP Media eXchange Migration

This chapter describes how to migrate IP Media eXchange (IPMX) and upgrade the components that belong to IPMX after Framework has been successfully migrated. Information in this chapter is divided into the following topics:

The first release of IPMX was 6.0, under the name Voice over IP (VoIP) Option.

General Instructions

The following section discusses:

Required Framework Components

IPMX requires these Genesys Framework components (see important note below about "Licensing" requirements):

- DB Server
- Configuration Server
- Configuration Manager
- Stat Server
- License Manager

If you are using Genesys Universal Routing Solution (Enterprise Routing and/or Network Routing), you will also need the Universal Routing Server and the Interaction Routing Designer.

If you have not already installed the DB Server and/or Stat Server for your solution, see the *Framework 7.0 Deployment Guide*.

Licensing

IP Media eXchange 7.0 uses the Genesys License Control System described in the *Licensing Genesys Products* document on the Documentation Library DVD. The licensing requirements specified in this document must be met before installing/configuring IP Media eXchange components.

A major change with Genesys 7 licensing is that URS licensing is no longer based on the number of instances of Universal Routing Server. Instead URS licensing is based on routing seats. URS licensing controls the number of active routing targets within concurrently active sessions. The number of currently activated routing targets cannot exceed the limit in the license file.

Also, URS High Availability (HA) mode now requires licensing.

Component Changes from 6.5 through 7.0

IPMX was called Voice over IP (VoIP) Option in releases 6.1 and 6.5. There have been no changes to the names of its three components:

- Simple Media Control Protocol (SMCP) T-Server
- Distributed Media Exchange (DMX)
- VoIP Stream Manager (SM)

Between 6.1 and 6.5 several changes were made to the object types for the DMX and SM components. See Table 96.

Table 96: IPMX Application Objects and Types

Application	Object Type		
	5.1	6.0	6.1 and Later
VoIP Stream Manager (SM)	Third-Party Server	Third-Party Server	Voice over IP Stream Manager
Distributed Media Exchange (DMX)	Third-Party Server	Voice over IP Controller	Voice over IP DMX Server
SMCP T-Server	T-Server		

The type of DMX and SM object to use depends on the underlying version of Genesys Framework. Refer to *IPMX 7.0 Reference Manual*, Chapter 3 “IPMX Configuration Objects” for additional information.

DMX

Changes in the functionality for DMX include:

- Support for the Session Initiation Protocol (SIP) RFC 3261 and is compatible with the most popular SIP-compatible, off-the-shelf hardware or software for DMX.
- Video exchange for H.323 (NetMeeting 3.01) and SIP-protocol (Messenger 5.0 under Windows XP).
- Full compatibility with Genesys Framework 6.5 and can now be used in conjunction with ConfigServer 6.5 and DB Server 6.5.
- Ability to be configured to become a software-based Voice Conferencing and Multipoint Control Unit (MCU).
- It is now possible to run DMX in single or multi-mode configurations with DMX in the following roles:
  - One DMX is both gatekeeper and client simultaneously.
  - Multi-DMX configurations where each DMX is both gatekeeper and client simultaneously.
  - One DMX is gatekeeper and the other DMXs (up to three) are clients.
  - One DMX is both gatekeeper and client at the same time and the other is in MCU mode.

SM

Changes in the functionality of SM include:

- Transfers of Application Sharing (T.120 Protocol) Sessions with data preservation for SM.
- Call recording.
- Call Progress Treatment support.
- Silent Voice Monitoring.
- Voice/Video Mute Control.
- Full compatibility with Genesys Framework 6.5 - SM can now be used in conjunction with ConfigServer 6.5 and DB Server 6.5.

Other Migration Issues

There are no major changes in the architecture between IPMX 6.1/ 6.5 and 7.0.

Some new features added in release 7.0 may require changes to your configuration. See *IPMX 7.0 Getting Started Guide* for a list of new features and *IPMX 7.0 Reference Manual* for details on configuration.

Migration from 6.5 to 7.0

The following information summarizes the migration from release 6.1 or 6.5 to 7.0.

General Recommendations

- First complete the migration of Framework (see the chapters on Framework migration in this guide).
- Do not make any changes to your IPMX configuration, except as described in Step 2 of "Migration Procedure" on page 581. Install the new IPMX 7.0 components to your existing IPMX configuration objects.
- You should back up your IPMX configuration data prior to migration. To do this, follow these steps for each IPMX component:
  - **a.** In Configuration Manager, open the `Properties` dialog box for the component application object.
  - **b.** From the `Options` tab, export the default configuration options to a configuration file. Keep this file in case you have problems configuring IPMX 7.0 and need to return to the previous version.
- For the same reason, you should install the new IPMX components into a different directory than the existing environment.

To facilitate the configuration of new 7.0 features, it may be helpful to view options within new object templates. This requires importing templates to Configuration Manager.

Warning! Do not import the templates into existing applications. You could overwrite existing configuration options.

Migration Procedure

The following steps should be performed to ensure a successful migration:

1. Install each Genesys IPMX component (DMX, SM and SMCP T-Server), using the Installation Package.

- Use separate installation packages rather than the wizard to maintain a tight control on what objects are changed within Configuration Manager. Wizards will prompt you to install an entire new switching environment.

The installation package installs the following new files:

- Executables (DMX, SM, SMCP T-Server)
- Batch Files (DMX, SM, SMCP T-Server)
- Log Message System Files (DMX, SM, SMCP T-Server)

No changes are made to the Configuration database during this time.

2. Make the following modifications within Configuration Manager:
   - Switch—add a DN of type Voice Over IP Service for calls over IP networks, such as the public Internet (new requirement for 7.0). For details see *IPMX 7.0 Reference Manual,* Chapter 3 "IPMX Configuration Objects," the section on "Addressing for Services."
   - DMX Application—If you want to use the optional RAS Client/Server functionality, you must add the section Gatekeeper and its options to the Options tab. The Gatekeeper options are listed in *IPMX 7.0 Reference Manual,* Chapter 5 "Configuration Options," section on "DMX options."
   - T-Server Application—T-Server is a licensed component and requires access to a license file. The batch file must make reference to a license file using the -l parameter or the license file option must be configured.
   - SM Application—Add an option called debug-level to the x-config section. (see *IPMX 7.0 Reference Manual,* Chapter 5 "Configuration Options," for full descriptions of all options).

Rollback Instructions

For each IPMX component, do the following:

1. In the Configuration Manager, display the `Properties` dialog box for the application.
2. On the `Options` tab, click the `Import from Configurations File` icon and locate the configuration file you exported in Step 2 under "General Recommendations" on page 580. This procedure overwrites the options on this tab with those in the configuration file.
3. Make any other required changes, such as configuring connections to the applications of the restored environment.
4. Click `OK` to save the changes and close the dialog box.

Changes in Configuration Options

Table 97, Table 98, and Table 99 list all changes in the configuration options for the three IPMX components. All new options are optional and should be set to default values if they are not configured.

Table 97: SMCP T-Server Option Changes

Current Option Name	Type of change	Change occurred in Version #	Details (optional)
acdq-rna-timeout	new option added to TServer section	7.0	`60`
all	default value changed in log section	7.0	Old value: `stdout` New value: `stderr`
addp-remote-timeout	new option added to backup-sync section	7.0	`0`
addp-timeout	new option added to backup-sync section	7.0	`0`
addp-trace	new option added to backup-sync section	7.0	`off`
add-trp-info	new option added to TServer section	7.0	`false`
background-timeout	new option added to TServer section	7.0	`60 ms`
bad-destination-5sec-tone	new option added to TServer section	7.0	`music/sit_5sec`
bad-destination-tone	new option added to TServer section	7.0	`music/sit`
buffering	removed from log section	7.0	`true`
busy-5sec-tone	removed from TServer section	7.0	`music/busy_5sec`

Table 97: SMCP T-Server Option Changes (Continued)

Current Option Name	Type of change	Change occurred in Version #	Details (optional)
busy-tone	removed from TServer section	7.0	`music/busy_tone`
cast-type	default option changed in extrouter section	7.0	Old value: `route` New value: `route direct reroute pullback direct-uui direct-notoken direct-ani dnis-pool direct-digits`
cof-ci-req-tout	default option changed in extrouter section	7.0	Old value: `500` New value: `500 msec`
cof-rci-tout	default option changed in extrouter section	7.0	Old value: 10 New value: 10 sec
collect-tone	new option added to TServer section	7.0	`music/collect`
configuration-error-5sec-tone	new option added to TServer section	7.0	`music/reorder_5sec`
configuration-error-tone	new option added to TServer section	7.0	`music/reorder`
debug	removed from TServer section	7.0	`stdout`
destination-busy-5sec-tone	new option added to TServer section	7.0	`music/busy_5sec`
destination-busy-tone	new option added to TServer section	7.0	`music/busy`
dn-request-limit	new option added to TServer section	7.0	`100`

Table 97: SMCP T-Server Option Changes (Continued)

Current Option Name	Type of change	Change occurred in Version #	Details (optional)
do-not-call-free-dn	new option added to TServer section	7.0	`false`
event-propagation	removed from extrouter section	7.0	`list`
expire	removed from log section	7.0	`false`
fast-busy-tone	new option added to TServer section	7.0	`music/atb_5sec`
inbound-to-pbx	removed from TServer section	7.0	`false`
license	new section	7.0	
license-file	removed from TServer section	7.0	<required> moved to license section
log-trace-flags	new option added to TServer section	7.0	`+iscc +cfgSdn -cfgserv +passwd +udata -devlink -sw -req -callops -conn -client`
make-after-answer	new option added to TServer section	7.0	`false`
max-call-returns	new option added to TServer section	7.0	`1`
max-call-setup-repeats	new option added to TServer section	7.0	`3`
network-callback	new option added to TServer section	7.0	
network-default-dn	new option added to TServer section	7.0	
network-failure-5sec-tone	new option added to TServer section	7.0	`music/atb_5sec`

Table 97: SMCP T-Server Option Changes (Continued)

Current Option Name	Type of change	Change occurred in Version #	Details (optional)
network-failure-tone	new option added to TServer section	7.0	`music/atb`
network-max-calls	new option added to TServer section	7.0	`0`
network-service-dn	new option added to TServer section	7.0	
no-answer-5sec-tone	new option added to TServer section	7.0	`music/rna_5sec`
no-answer-tone	new option added to TServer section	7.0	`music/rna`
no-music-to-mcu	new option added to TServer section	7.0	`false`
normal-release-5sec-tone	new option added to TServer section	7.0	`music/normal_5sec`
normal-release-tone	new option added to TServer section	7.0	`music/normal`
notready-after-acw	new option added to TServer section	7.0	`false`
num-of-licenses	removed from TServer section	7.0	`max` moved to license section
num-sdn-licenses	new option added to TServer section	7.0	`max` added to license section
old-smcp	removed from TServer section	7.0	`true`
pretend-status	removed from TServer section	7.0	`true`
queue-music	default value changed in TServer section	7.0	Old value: `music/in_queue` New value: None

Table 97: SMCP T-Server Option Changes (Continued)

Current Option Name	Type of change	Change occurred in Version #	Details (optional)
reconnect-tout	default value changed in extrouter section	7.0	Old value: `5` New value: `5 sec`
reject-subsequent-request	default value changed in agent-reservation section	7.0	Old value: `0` New value: `true`
release-tone	new option added to TServer section	7.0	`music/release`
request-collection-time	default value changed in agent-reservation section	7.0	Old value: `100` New value: `100 msec`
request-tout	default value changed in extrouter section	7.0	Old value: `20` New value: `20 sec`
reservation time	default value changed in agent-reservation section	7.0	Old value: `10000` New value: `10000 msec`
resource-allocation-mode	new option added to extrouter section	7.0	circular
resource-load-maximum	new option added to extrouter section	7.0	`0`
queue-max-calls	new option added to TServer section	7.0	`0`
rtp-info-password	new option added to TServer section	7.0	
segment	removed from log section	7.0	`false`
silence-tone	new option added to TServer section	7.0	`music/silence`
sip-callid-host	new option added to TServer section	7.0	

Table 97: SMCP T-Server Option Changes (Continued)

Current Option Name	Type of change	Change occurred in Version #	Details (optional)
tcs-queue	new option added to extrouter section	7.0	
tcs-use	new option added to extrouter section	7.0	never
timeout	default value changed in extrouter section	7.0	Old value: `60` New value: `60 sec`
user-data-limit	new option added to TServer section	7.0	`16000`
verbose	default value changed in log section	7.0	Old value: `trace` New value: `standard`
voice-call-monitoring-password	new option added to TServer section	7.0	
voice-call-monitoring-target-hint	new option added to TServer section	7.0	no

DMX 6.5 and higher has a new Options section called **gatekeeper.** The default value for this option might be different depending on the DMX mode template (see Table 98 and Table 99).

Table 98: DMX Option Changes

Current Option Name	Type of change	Change occurred in Version #	Comment
collect-digits	new option	7.0	default value: `false` Value: `x-config` **Note:** Every time DMX 6.5 performs digits collection, it sends new digits along with the old ones.
delay-own-tcs	new option	7.0	`2000 (msecs)`
dtmf-sip	new option	7.0	`rtp-nte`
leg-record-timeout	new option added to x-config section	7.0	`10000`
leg-regular-timeout	new option added to x-config section	7.0	`30000`
-mcu	new command line option	7.0	
MediaWaitForConnect	new option	7.0	`false`
progress-inband	new option	7.0	`false`
silence-suppression	new option added to x-config section	7.0	`null`
sip-port	new option	7.0	`5060`
sip-transport	new option	7.0	`udp`

Table 98: DMX Option Changes (Continued)

Current Option Name	Type of change	Change occurred in Version #	Comment
t120	new option added to x-config section1	7.0	`false`
video-codec	new option added to x-config section	7.0	`0`

Table 99: SM Option Changes

Current Option Name	Type of change	Change occurred in Version #	Comment
max-record-file-size	new option	7.0	`0`
max-record-silence	new option	7.0	`0`
max-record-time	new option	7.0	`300`
-pc	new command line option	7.0	normal
rtcp-inactivity-timeout	new option	7.0	`30 secs`
rtp-ip-precedence	new option	7.0	`0`

Part

7 SIP Server Solution Migration

This section describes the migration of SIP Server, Network SIP Server, and Stream Manager from releases 7.2, 7.5, 7.6, and 8.0 to release 8.1. It discusses component changes, and the Genesys software that supports and enables SIP Server solution functionality.

The information is divided into the following chapters:

- Chapter 25, "Introduction to SIP Server Solution Migration," on page 593 provides background information on SIP Server solution migration.
- Chapter 26, "Changes in Configuration Options," on page 605 offers a list of configuration options that may have changed since you last deployed the SIP Server solution.
- Chapter 27, "SIP Server Solution Migration Procedures," on page 621 provides the required steps to migrate the SIP Server solution and Genesys Media Server 8.1.

Refer to "Migrating from IP Media eXchange to SIP Server" on page 553 for information about the migration procedures of Genesys products to release 7.2

Chapter

25 Introduction to SIP Server Solution Migration

This chapter provides background information on how to migrate and upgrade the SIP Server, Network SIP Server, and Stream Manager products.

Basic information about the SIP Server solution and SIP Server options is available in:

- *Framework 8.1 SIP Server Deployment Guide*
- *Stream Manager 7.6 Deployment Guide*
- *Framework 7.5 Network SIP Server Deployment Guide*

This chapter discusses the following topics:

Note: References to SIP Server in these chapters also apply to Network SIP Server, except where noted.

Preliminary Migration Procedures

Note: If you want to upgrade your operating system, you must do this before migrating your Genesys product.

The migration process includes these preliminary procedures for the SIP Server solution:

1. Review Chapter 1, “Migration Roadmap,” on page 41 of this guide.

2. Examine the order in which the Genesys software required for Framework 8.1 should be upgraded.
3. Examine the component changes for the SIP Server solution in Chapter 26, "Changes in Configuration Options," on page 605.
4. Look at the option changes in Chapter 26, "Changes in Configuration Options," on page 605.

> **Note:** These tables only discuss changes that directly affect the migration of this product. For a complete list of configuration options for the SIP Server solution, see the *Framework 8.1 SIP Server Deployment Guide*; the *Stream Manager 7.6 Deployment Guide;* and the *Framework 7.5 Network SIP Server Deployment Guide*. For a list of documentation relevant to the migration of this product, see the list below.

5. Review the licensing requirements for Framework 8.1. See Chapter 2, "Licensing Migration," on page 47 in this guide.
6. Check the interoperability of the components of Framework 8.1 during the upgrade procedures.

See the following documents for more information about compatibility among different versions of Genesys products.

- *Framework 8.1 SIP Server Deployment Guide*
- *Stream Manager 7.6 Deployment Guide*
- *Framework 7.5 Network SIP Server Deployment Guide*
- *Genesys Licensing Guide*
- *Framework 8.1 Deployment Guide*
- *Genesys Interoperability Guide*

Migration Considerations

Migration paths depend on the version of the specific SIP Server that you are migrating. In all cases it is assumed that you are migrating to the most recent version of your application.

Multi-Site/Single-Site and Multi-Tenant Migration

SIP Server migration requires the planning of system operation during the migration process:

- In single-site migrations, you need to suspend work in your production environment during the SIP Server solution migration process.

- In multi-site environments, while you are undergoing the migration process, you need to reroute work through another SIP Server (or Stream Manager) during the upgrade, in order to avoid suspending work.

Redundant SIP Servers

Since SIP Server can operate in a high-availability (HA) configuration providing you with redundant systems, you may be migrating multiple servers. In the cases of both primary and backup SIP Servers, the migration process is the same.

Required Framework Components

SIP Server is a part of the Framework Media Layer. Refer to Framework 8.1 documentation to learn about the role of SIP Server in the Media Layer, and about the Media Layer's role within the overall scope of a Framework migration. Be sure to refer to earlier portions of this guide which provide an overall picture of the larger migration process for all your Genesys components, and identify the specific point at which SIP Server is migrated.

Note: Be sure to upgrade or install components of the Framework Configuration Layer before you migrate your SIP Server. See the Framework Migration section in this guide.

Licensing Changes

Regardless of which version of SIP Server you have prior to migrating, be sure to check on the licensing requirements forthe new version. In all cases, refer to the *Genesys Licensing Guide* available on the Technical Support Website, for more information.

Note: In the Genesys 8 Framework, high-availability configurations do not require duplicate licenses. The HA license for your SIP Server applies to both the primary and backup SIP Servers.

Earlier Configuration Environment

SIP Server 8.1 is fully backward compatible with the pre- 8.1 release of SIP Server clients. See "Interoperability Among Framework Components" on page 602 for details on mixed environments. The 8.1 SIP Server features can be configured using 7.6 or 8.0 Configuration Layer with the SIP Server 8.1 Application template.

SIP Server Solution Enhancements

The following sections describe some of the major functional differences between the 8.0 and 8.1 releases of the SIP Server solution.

SIP Server

The following new features are introduced in release 8.1.0 of SIP Server.

- **Alternate ringtones.** SIP Server supports insertion of the SIP `Alert-Info` header into `INVITE` requests, in order to specify a distinctive ring-tone depending on the type of call.
- **Diversion header support.** SIP Server supports the `Diversion` header for redirected calls.
- **Enhanced Private and Custom header support**. SIP Server supports the following new private and custom header functionality:
  - Support for `P-Early-Media` header, used to control the flow of media in the early dialog state.
  - Support for `P-Access-Network-Info` header, used to provide access to network information about the user.
  - Forwarding custom headers — SIP Server can pass custom headers from a `REFER` to an outgoing `INVITE` or `REFER`.
  - Filtering custom headers — SIP Server can filter custom headers from a T-Library request to an outgoing `INVITE` or `REFER`.
- **MSML-based Call Recording**. SIP Server supports call recording through Media Server Markup Language (MSML), based on integration with the Genesys Media Server
- **Media Server Reliability—MSML.** SIP Server now supports the `SUBSCRIBE/NOTIFY` method for providing reliable MSML-based media services.
- **User to User Information (UUI) header support**. SIP Server now supports the SIP User to User Information (UUI) header, as specified in the RFC draft “A Mechanism for Transporting User to User Call Control Information in SIP”. It also supports a configurable limit for the length of data included in the UUI header, up to a maximum of 8192 characters.
- **Network requests for media services.** SIP Server now supports network requests for media services as described in RFC 4220 “Basic Network Media Services with SIP”.
- **Advice of Charge.** SIP Server now supports the transfer of Advice of Charge (AoC) information between the T-library client that determines the charge and the third-party component that generates the charge.
- **Smart OtherDN handling.** SIP Server now supports converting the Agent ID to the corresponding DN in certain T-Library messages where the Agent ID is included as the value of the `OtherDN` field.

- **Monitoring of consultation calls.** SIP Server now supports supervisor monitoring of DNs involved in a consultation call.
- **Enhanced logging for multi-threaded mode.** SIP Server can now write log files for each module in a multi-threaded mode architecture to a separate log file.
- **DNS Name Resolution.** SIP Server now supports DNS name resolution in accordance with RFC 3263. For example, it now includes priority and weight information from returned DNS records when resolving hostnames to multiple corresponding IP addresses.
- **Set trunk capacity from routing strategy.** SIP Server supports the use of the `Dest-Capacity` key-value pair in the `Extensions` attribute, as applied by the URS routing strategy, to set the capacity for a targeted Trunk.
- **SIP Authentication for outbound trunks.** SIP Server can now respond to HTTP Digest authentication challenges with authentication parameters configured on the outbound Trunk DN.
- **Configurable domain in the Refer-To header of a REFER message**.
- **Send CPD results from gateway to GVP using MSML.** SIP Server now sends CPD results to GVP in the Outbound IP Solution using the existing MSML dialog, instead of using particular SIP messages depending on the gateway type.
- **Support for graceful shutdown.** Users can now shut down applications and solutions gracefully. During this process, applications may be in the new `SUSPENDING` or `SUSPENDED` state before they are finally stopped. For more information, refer to the *Framework 8.1 Deployment Guide*.
- **Genesys Voicemail Server integration**. SIP Server supports integration with Genesys SIP Voicemail Server. For details, see the *Genesys SIP Voicemail 8.1 Deployment Guide*.
- **Additional dial-plan parameters.** SIP Server supports new parameters in the dial-plan rule: `onunreach`, `unreach-timeout`, `onnotreg`.

SIP Server introduced a variety of new features across several 8.0.x releases.

8.0.3 Features

The following new features are now available in release 8.0.3 of SIP Server:

- **Overload Control.** SIP Server now supports an overload control mechanism, which can gracefully handle situations where the load on the SIP Server exceeds its configured rate capacity threshold(s).
- **Alternate Routing for Calls to an External Destination.** SIP Server can now route inbound 1pcc calls to a specified DN when the `INVITE` is addressed to an external destination. To support this feature, a new Application-level configuration option, `default-route-point`, has been added.
- **Support for Genesys Media Server.** SIP Server supports integration with the Genesys Media Server for providing media services including call treatments, call recording, call supervision and basic IVR.

- **Enhanced Support for Dial Plan.** SIP Server supports additional functionality for the Dial Plan feature:
  - Ability to configure a dial plan for forwarded calls.
  - Alternate routing when the dial plan destination is busy.
  - Alternate routing when the dial plan destination is set to do-not-disturb.
- **Network Asserted Identity.** SIP Server supports the network asserted identity mechanism defined by RFC 3323, RFC 3324, and RFC 3325.
- **Control of SIP Response Code from within a Routing Strategy.** SIP Server supports user-specified error code responses for rejected calls, as applied in the `Extensions` attribute in call requests that are made from a routing strategy.
- **Multi-Threaded Architecture.** SIP Server supports multi-threading for enhanced scalability for machines with multiple CPUs.
- **Application Failure Detection.** SIP Server supports Management Layer monitoring of the SIP Server application, in order to take corrective action if the application or one of its threads fails.
- **Remote Media on Genesys SIP Endpoint SDK 8.0.** SIP Server supports remote 3pcc Beep Tones Control and DTMF Tones Control on custom endpoints that are built from the Genesys SIP Endpoint SDK 8.0.
- **IMS Integration.** SIP Server supports integration with IP Multimedia Subsystem (IMS) networks.
- **Transport Layer Security for SIP Traffic.** SIP Server supports secure communication using TLS for the SIP listening port
- **Presence Integration for Microsoft OCS 2007 R2.** SIP Server now supports the ability to subscribe to the presence status for Microsoft Office Communications Server 2007 R2 users.
- **Enhanced Support for Personal Greeting.** SIP Server now enables you to configure how SIP Server provides personal greetings in different scenarios.

8.0.2 Features

The following new features were introduced in release 8.0.2 of SIP Server.

- **Network Attended Transfer/Conference (NAT/C).** SIP Server now supports the NAT/C feature, which allows agents working in multi-site contact centers to consult with each other before making call transfers or conferences.
- **Call supervision for transferred calls.** SIP Server now supports supervisor monitoring for DNs that are moved from a consultation call to the main call as a result of a two-step transfer.
- **Stranded Call Routing.** SIP Server now offers alternate routing for stranded calls (calls left waiting in a queue after the last agent logs out) and stranded-on-arrival calls (calls that arrive at a queue that has no remaining logged-in agents).

- **Alternate routing for unresponsive DNs.** SIP Server now supports alternate routing for new calls to Genesys SIP endpoints that fail to respond to the `INVITE` request.
- **Enhanced active out-of-service-detection.** SIP Server now provides the ability to configure the value of the `Max-forwards` header used in the `OPTIONS` messages that SIP Server sends to check the availability of a particular SIP device.
- **Dial Plan.** SIP Server provides the ability to configure a complete dial plan using a dedicated `Voice over IP Service` DN, which you can assign to a particular agent DN.

> **Note:** This feature replaces the deprecated out-rule functionality described in the "Class of Service" section of the *Framework 8.0 SIP Server Deployment Guide*. For SIP Server version 8.0.2 and higher, Genesys recommends using the Dial Plan feature for all outbound dial rules.

- **Enhanced control over SIP INFO messages.** SIP Server now includes a new option, `info-pass-through`, that lets you control whether SIP Server will pass SIP INFO messages to a remote device.
- **Support for Outbound IP Solution.** SIP Server includes several new features to support the Outbound IP Solution.

8.0.1 Features

The following new features were introduced in the 8.0.1 release of SIP Server.

- **Playing multiple media files.** SIP Server can now play different media files for various contact center music-on-hold and video-on-hold requirements, from a single instance of SIP Server.
- **Contact header handling options.** SIP Server supports two methods for handling the `Contact` header in `REGISTER` requests: it can preserve information contained in the header; or it can replace the user-name part of the URI with the DN name.
- **Recording for consultation calls.** SIP Server now supports regular call recording on consultation calls.
- **Busy tone for more than five seconds.** SIP Server can now play a busy tone for five seconds or longer.
- **Mapping agent actions to T-Library events.** SIP Server can now support agent login and logout functionality from endpoints by using `SUBSCRIBE` and `NOTIFY` requests.
- **Enhanced reliability for media services.** For deployments that include multiple media server, SIP Server now immediately reinvites the next available media server, in cases where a `BYE` message is received from the media server while playing music-on-hold or ringback tone, or when the HTTP stream is disconnected.

SIP Server now supports media reliability for conference, call-recording, and supervisor-feature services.

8.0.0 Features The following features were added in the initial 8.0.0 release of SIP Server.

- **`TCompleteTransfer` using `REFER` or `REFER` with `Replaces` header.** SIP Server now supports the `TCompleteTransfer` operation by using either the SIP `REFER` method or the SIP `REFER` method with the `Replaces` header.
- **Automatic Agent Logout.** SIP Server can now automatically log out an agent after a specified period of inactivity, ensuring accurate reporting of agent activity.
- **Enhanced support for geo-location.** SIP Server now supports the ability to assign the `geo-location` for a call from the routing strategy, which takes precedence over the `geo-location` that is configured at the DN level in Configuration Manager.
- **Support for `TClearCall` requests.** `TClearCall` now instructs SIP Server to delete all parties from any type of call. This includes call operations that are currently underway or currently queued (for example, a `HoldCall` operation that is delayed while waiting for a response to an `INVITE` request).
- **Enhanced support for high availability (HA).** SIP Server now supports several additional capabilities related to high availability deployments:
  - SIP Server now supports high-availability configurations where both primary and backup instances of SIP Server reside on a single host server (both SIP Server instances must be configured with identical sip-address and sip-port values).
  - SIP Server now synchronizes the SIP registration `Contact` header for a particular device across both primary and backup instances of SIP Server.
  - SIP Server now supports the use of the F5 Networks® BIG-IP® Local Traffic Manager™ to manage the virtual IP address of a SIP Server HA pair. For more information, see the *Framework 8.0 SIP Server Integration Reference Manual*.
- **Nailed-up connection.** SIP Server can now provide a persistent SIP session for agents who require a dedicated connection to the contact center—typically for time-division multiplexing (TDM) agents dialing in to the contact center from the public switched telephone network (PSTN).
- **Enhanced Agent No-Answer Supervision.** SIP Server can now apply Agent No-Answer Supervision functionality (alternate routing or forced agent logout) in cases where an agent DN returns a `4xx` rejection response to an `INVITE` request.
- **Support for Quality of Service (QoS).** SIP Server can now set QoS bits to a user-defined value in order to prioritize SIP signaling traffic.
- **Stuck calls cleanup.** SIP Server now supports the detection and cleanup of stuck calls.

- **Support for early media.** SIP Server now supports the exchange of early media before a particular session is accepted (for example, to provide an audio treatment before the call is answered, thereby avoiding toll charges for the caller).
- **Support for ITU-T recommendation E.164.** SIP Server now supports the E.164 recommendation for the international public telecommunication numbering plan.

Note: See the *Framework 8.0 SIP Server Deployment Guide* for more information about these changes.

Stream Manager

The enhancements for Stream Manager include:

- Support for Quality of Service (QoS) on Linux.
- Support for the ptime attribute in the Session Datagram Protocol (SDP). It can both add the ptime attribute to the SDP, as well as process the ptime attribute in received SDP.
- Support for IBM AIX Version 6.1 operating system.The off-line transcoding utility in Stream Manager, smzip, can now convert audio files from one codec to another.
- Stream Manager can now reject new dialogs based on a configured load threshold.
- Stream Manager can now send two types of DTMF tones—digitized tones and named telephone events (RFC 2833).

Note: See the *Framework 7.6 Stream Manager Deployment Guide* and respective Release Notes for more information about these changes.

Network SIP Server

The enhancements for Network SIP Server include:

- Name resolution through DNS. To support hostname resolution through DNS, a new Application-level option `resolve-sip-address` has been introduced.
- Support for custom SIP header in `302 Moved Temporarily` messages by using the `SIP_HEADERS` key in the `Extensions` Attribute.
- Network SIP Server supports the `default-route-destinations` configuration option at both the Application and the Switch/DN level.
- Network SIP Server supports the `OPTIONS` SIP request. Network SIP Server returns a `200 OK` SIP message as a response to that request.

Note: See the *Framework 7.5 Network SIP Server Deployment Guide* for more information about this change.

Stream Manager Considerations

When migrating to the recent version of Stream Manager, pay attention to the following items:

- If you are migrating from release 7.2, you must update your video file names.
- In pre-7.5 releases, the `sip-h261-fmtp` and `sip-h263-fmtp` options controlled both the SDP (Session Description Protocol) and the file selection. In 7.5 release and later, the SDP and the file selection are individually specified in the `sip-h26x-fmtp` and `h26x-annc-fmts` options.
- In pre-7.5 releases, the order of the codecs listed in the `sip-annc-codecs` and `sip-conf-codecs` options determined how call or conference recording was performed. In 7.5 release and later, the `sip-record-codec` option determines this functionality.
- In pre-7.6 releases, the list of codecs for Real-time Transcoding feature was controlled by the `sip-conf-codecs` option. In 7.6 release, this option affects conferences only. A new option, `sip-trans-codecs`, has been added to control transcoding.

There are many changes to configuration options between release 7.5 and 7.6. For more information, see "Stream Manager" on page 615 in this Migration Guide and the *Stream Manager 7.6 Deployment Guide*.

Migrating to Genesys Media Server

If migrating from Stream Manager to the Genesys Media Server, See "Media Server Migration Procedures" on page 625 in this *Migration Guide*. This section provides the migration strategy, the required provisioning changes, as well as a description of feature parity between the two products.

Interoperability Among Framework Components

The term *interoperable* refers to environments where different versions of Genesys solutions, components, or options work together compatibly during the migration process.

Interoperability of Genesys products can occur at two levels of migration:

- **Interoperability at the suite-level** means combining different versions of solutions and options during the migration process.

Example: You can migrate to the Configuration Layer of Framework 8.0 while still using 7.6 components. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.

- **Interoperability at the solution-specific level** means combining different versions of the components of a particular solution while upgrading them sequentially during the migration process.

  Example: The mixture of components may include executables, applications, routing strategies, scripts, and data that comprise a particular solution.

  As you upgrade each of the components in sequence, you will need to know if it is backward-compatible with the other components of your environment.

SIP Server Interoperability

If you are running your SIP Servers in either `hot` or `warm standby` mode in a single-site deployment, then the primary and backup SIP Servers must both be of the same release family (although within the family there can be minor-release differences).

Multi-site deployments of SIP Server allow for interoperability of SIP Server versions between sites. You can migrate one SIP Server without migrating your other SIP Servers. Use this concept to keep your production system up during migration. You will need to route work through alternate SIP Servers while migrating a given SIP Server to the current release.

An additional consideration for multi-site deployments—special configuration is required in cases where resources on different SIP Server switches share the same name. Prior to release 7.5, SIP Server differentiated between internal and inbound calls based on information in specific SIP headers. Starting in release 7.6, however, SIP Server relies strictly on the option `enforce-external-domains` to differentiate inbound from internal calls, in cases where the user name in the `From` header of the incoming `INVITE` matches the name of any internal resource. This option must be configured on every SIP Server instance in a multi-site deployment, and must contain the addresses of all the other SIP Server instances in the deployment. In addition, for `Trunk` DNs that point to an external SIP Server, if you configure `override-domain-from` on the trunk, you must also add the value of this option to the `enforce-external-domain` list of the opposite SIP Server. For more information about these options, see the *Framework 8.0 SIP Server Deployment Guide*.

Additional Information about Migration

The following information is also pertinent to the migration of the SIP Server solution 8.x.

- Be sure to review the specific issues that relate to your SIP Server solution, especially with respect to changes in configuration options. (See Chapter 26, “Changes in Configuration Options,” on page 605 for details.)

Note: For an overview about migration issues, please see Chapter 1, “Migration Roadmap,” on page 41 of this guide.

Chapter

26 Changes in Configuration Options

The chapter compares the changes for configuration options for the SIP Server 8.1 solution operation with earlier releases. In each case, details of the option change are given along with specific configuration instructions, when applicable. As with component configuration in Configuration Manager, the following configuration options are divided into sections.

This chapter discusses the following topics:

The options listed here are cumulative from the 7.0 release of SIP Server. Read through all the pertinent tables carefully to determine which options offer new or changed functionality for your new SIP Server solution.

Note: SIP Server is built with the T-Server Common Part (TSCP). See "Configuration Options Common to All T-Servers" on page 415 for more information about changes to these options. SIP Server also supports common log options. See Table 5, "Common Option Changes," on page 118 for details.

Complete information on each supported SIP Server solution option for the current release is available in the *Framework 8.1 SIP Server Deployment Guide*; the *Stream Manager 7.6 Deployment Guide*; and the *Framework 7.5 Network SIP Server Deployment Guide*.

SIP Server Solution-Specific Configuration Options

Refer to the following tables to find specific information relating to option changes that may have occurred between the most recent 7.6 release of the SIP Server solution and your earlier release. Complete information about each supported option for the current release is available in the *Framework 8.1 SIP Server Deployment Guide;* the *Stream Manager 7.6 Deployment Guide*; and the *Framework 7.5 Network SIP Server Deployment Guide*.

Note: Prior to release 7.2, SIP Server was known as SIP Communication Server.

Changes to SIP Server Solution-Specific Configuration Options

The following SIP Server solution applications have important differences in configurations from earlier releases (see the accompanying tables for details).

- SIP Server, page 606
- Stream Manager, page 615
- DMX, page 619
- Network SIP Server, page 619

SIP Server

Table 100 lists configuration options that changed between the various releases of SIP Server. If a configuration option has been replaced with another that enables the same functionality, the new option's name and location are noted.

Table 100: Option Modifications in SIP Server

Option Name	Type of Change	Occurred in Release	Details
Application Level > Options Tab > T-Server Section			
registrar-default-timeout	Modified	8.1	Maximum valid value increased from 3600 to 4294967295.
monitor-consult-calls	New	8.1	
msml-record-support	New	8.1	
mwi-implicit-notify	New	8.1	

Table 100: Option Modifications in SIP Server (Continued)

Option Name	Type of Change	Occurred in Release	Details
resource-management-by-RM	New	8.1	
silence-detected	New	8.1	
sip-address-srv	New	8.1	
sip-alert-info	New	8.1	
sip-alert-external	New	8.1	
sip-alert-consult	New	8.1	
sip-enable-gdns	New	8.1	
sip-enable-rfc3263	New	8.1	
sip-from-pass-through	New	8.1	
sip-link-type	New	8.1	
sip-max-uui-length	New	8.1	
sip-pass-refer-headers	New	8.1	
subscription-event-allowed	New	8.1	
default-route-point	New	8.0.3	
greeting-after-merge	New	8.0.3	
greeting-call-type-filter	New	8.0.3	
greeting-delay-events	New	8.0.3	
greeting-notification	New	8.0.3	
greeting-repeat-once-party	New	8.0.3	
ims-3pcc-prefix	New	8.0.3	
ims-default-orig-ioi	New	8.0.3	
ims-default-icid-prefix	New	8.0.3	
ims-default-icid-suffix	New	8.0.3	
ims-propagate-pcvector	New	8.0.3	
ims-route-italtel	New	8.0.3	

Table 100: Option Modifications in SIP Server (Continued)

Option Name	Type of Change	Occurred in Release	Details
ims-skip-ifc	New	8.0.3	
map-sip-errors	New	8.0.3	
overload-ctrl-threshold	New	8.0.3	
overload-ctrl-dialograte-capacity	New	8.0.3	
overload-ctrl-call-rate-capacity	New	8.0.3	
server-role	New	8.0.3	
sip-link-type	New	8.0.3	
sip-port-tls	New	8.0.3	
sip-tls-cert	New	8.0.3	
sip-tls-cert-key	New	8.0.3	
sip-tls-cipher-list	New	8.0.3	
sip-tls-mutual	New	8.0.3	
sip-tls-target-name-check	New	8.0.3	
sip-tls-trusted-ca	New	8.0.3	
cpd-info-timeout	New	8.0.2	
default-music	New	8.0.2	
msml-support	New	8.0.2	
no-response-dn	New	8.0.2	
sip-<sip_error_code>	New	8.0.2	
stranded-call-redirection-limit	New	8.0.2	
stranded-calls-overflow	New	8.0.2	
stranded-on-arrival-calls-overflow	New	8.0.2	
busy-tone-duration	New	8.0.1	
enable-agentlogin-subscribe	New	8.0.1	

Table 100: Option Modifications in SIP Server (Continued)

Option Name	Type of Change	Occurred in Release	Details
record-consult-calls	New	8.0.1	
sip-preserve-contact	New	8.0.1	
sip-ip-tos	New	8.0.0	
default-network-call-id-matching	New	7.6	
map-sip-errors	New	7.6	
music-in-conference-file	New	7.6	
mwi-mode	New	7.6	
observing-routing-point	New	7.6	
parking-music	New	7.6	
set-notready-on-busy	New	7.6	
sip-dtmf-send-rtp	New	7.6	
sip-enable-call-info	New	7.6	
sip-retry-timeout	New	7.6	
sip-ring-tone-mode	New	7.6	
userdata-map-trans-prefix	New	7.6	
sip-block-headers	New	7.5	
default-video-file	New	7.5	
divert-on-ringing	New	7.5	
emergency-recording-cleanup-enabled	New	7.5	
emergency-recording-filename	New	7.5	
sip-treatments-continuous	New	7.5	
sip-initial-hold-recvonly	Removed	7.5	
sip-initial-hold-rfc3264	Removed	7.5	
sm-port	Removed	7.5	

Table 100: Option Modifications in SIP Server (Continued)

Option Name	Type of Change	Occurred in Release	Details
transfer-complete-by-refer	Removed	7.5	
cpd-info-timeout	New	7.5	
delay-between-refresh-on-switchover	New	7.5	
delay-to-start-refresh-on-switchover	New	7.5	
enforce-external-domains	New	7.5	
sip-enforce-sdp-origin-rules	Removed	7.6	
	New	7.2.1	
dual-dialog-enabled	New	7.2.1	
reject-call-incall	New	7.2.1	
reject-call-notready	New	7.2.1	
event-ringing-on-100trying	New	7.2.1	
sip-refer-to-sst-enabled	New	7.2.1	
sip-treatments-continuous	New	7.2.1	
straight-forward	New	7.2.1	
subscription-id	New	7.2.1	
transfer-complete-by-refer	New	7.2.1	
sip-initial-hold-recvonly	New	7.2.1	
handle-vsp	New	7.2.1	
reinvite-requires-hold	New	7.2	
transfer-complete-by-refer	New	7.2	
override-to-on-divert	New	7.2	
intrusion-enabled	New	7.2	
monitor-internal-calls	New	7.2	
default-monitor-scope	New	7.2	

Table 100: Option Modifications in SIP Server (Continued)

Option Name	Type of Change	Occurred in Release	Details
sip-hold-rfc3264	New	7.2	
mwi-host	New	7.2	
mwi-port	New	7.2	
mwi-domain	New	7.2	
mwi-extension-enable	New	7.2	
mwi-agent-enable	New	7.2	
mwi-group-enable	New	7.2	
sip-treatments-enabled	New	7.2	
make-call-rfc3725-flow	New	7.2	
request-uri	New	7.2	
authenticate-requests	New	7.2	
sip-address	New	7.2	
sip-sync-local-contact	Removed	7.6	
	New	7.2	
sip-sync-peer-contact	Removed	7.6	
	New	7.2	
reuse-sdp-on-reinvite	New	7.2	
sip-initial-hold-rfc3264	New	7.2	
oos-check	New	7.2	
oos-force	New	7.2	
geo-location	New	7.2	
find-trunk-by-location	New	7.2	
private-line	New	7.2	
am-detected	New	7.1	

Table 100: Option Modifications in SIP Server (Continued)

Option Name	Type of Change	Occurred in Release	Details
fax-detected	New	7.1	
internal-bsns-calls	New	7.1	
unknown-bsns-calls	New	7.1	
nas-private	New	7.1	
prd-dist-call-ans-time	New	7.1	
max-pred-req-delay	New	7.1	
expire-call-tmout	Removed	7.1	
retain-call-tmout	Removed	7.1	
Application Level > Options Tab > AuthClient Section (new in 8.1)			
password	New	8.1	
username	New	8.1	
Application Level > Options Tab > Log Section			
x-sip-log	New	8.0.3	
Application Level > Options Tab > UPDATE, INVITE, and INFO Sections			
extensions-<n>	Renamed from `Extensions-n`	7.1	Not backward compatible with 7.0.2 because of case sensitivity.
userdata-<n>	Renamed from `UserData-n`	7.1	Not backward compatible with 7.0.2 because of case sensitivity.
Agent Login–Level and DN-Level > Annex Tab > TServer Section			
emergency-backup	New	8.1	
emergency-callback-plan	New	8.1	
emergency-device	New	8.1	
enable-extension-headers	New	8.1	
override-domain-oosp	New	8.1	
replace-uri-contact	New	8.1	
sip-alert-info	New	8.1	

Table 100: Option Modifications in SIP Server (Continued)

Option Name	Type of Change	Occurred in Release	Details
sip-alert-external	New	8.1	
sip-enable-diversion	New	8.1	
sip-from-pass-through	New	8.1	
sip-proxy-uri-parameters	New	8.1	
sip-request-oos-timeout	New	8.1	
sip-transfer-complete-message	New	8.1	
voicemail-pattern-<n>	New	8.1	
enable-ims	New	8.0.3	
enforce-trusted	New	8.0.3	
fwd-privilege-level	New	8.0.3	
include-dial-plan-<n>	New	8.0.3	
ims-route	New	8.0.3	
ocs-dn	New	8.0.3	
sip-route	New	8.0.3	
p-asserted-identity	New	8.0.3	
privilege-level	New	8.0.3	
privacy	New	8.0.3	
sip-chat-format	New	8.0.3	
sip-cti-control	New	8.0.3	
sip-signaling-chat	New	8.0.3	
beep-duration	New	8.0.2	
cpd-capability	New	8.0.2	
dial-plan	New	8.0.2	
dial-plan-rule-<n>	New	8.0.2	
info-pass-through	New	8.0.2	

Table 100: Option Modifications in SIP Server (Continued)

Option Name	Type of Change	Occurred in Release	Details
oos-options-max-forwards	New	8.0.2	
partition-id	New	8.0.2	
subscription-id	New	8.0.2	
auto-logout-ready	New	8.0.0	
charge-type	New	8.0.0	
line-type	New	8.0.0	
sip-early-dialog-mode	New	8.0.0	
sip-replaces-mode	New	8.0.0	
transfer-complete-by-refer	New	8.0.0	
capacity	New	7.6	
capacity-group	New	7.6	
cpn	New	7.6	
default-dn	New	7.6	
default-music	Modified	8.0	This option replaces the music-in-queue-file option when configured on an `ACD Queue` DN.
display-name	New	7.6	
music-in-queue-file	Removed	8.0	This option is no longer supported on the DN-level. Use default-music instead.
out-rule-<n>	New	7.6	
override-call-type	New	7.5	
rfc-2976-dtmf	New	7.5	
reuse-sdp-on-reinvite	Modified	7.6	The option functionality modified.
sip-busy-type	New	7.6	
sip-ring-tone-mode	New	7.6	

Table 100: Option Modifications in SIP Server (Continued)

Option Name	Type of Change	Occurred in Release	Details
sip-server-inter-trunk	New	7.6	
use-display-name	New	7.6	
userdata-map-filter	New	7.6	
agent-greeting	New	7.5	
customer-greeting	New	7.5	
force-register	New	7.5	
dual-dialog-enabled	New	7.5	
reject-call-incall	New	7.5	
reject-call-notready	New	7.5	
subscribe-presence-domain	New	7.5	
subscribe-presence-from	New	7.5	
subscribe-presence-expire	New	7.5	
subscribe-presence-	New	7.5	
enable-agent-login-presence	New	7.5	

Stream Manager

Table 101 lists configuration options that changed between the various releases of Stream Manager. If a configuration option has been replaced with another that enables the same functionality, the new option's name and location are noted.

Table 101: Option Modifications in Stream Manager

Option Name	Type of Change	Occurred in Release	Details
Call Section			
call (section)	Removed	7.6	Contained options moved to a new section or removed completely.

Table 101: Option Modifications in Stream Manager (Continued)

Option Name	Type of Change	Occurred in Release	Details
call-protocol	Removed	7.6	Used by other components in IPMX architecture; never used by Stream Manager itself.
call-address	Renamed, moved	7.6	Renamed to `rtp-address`; moved to new section `contact`.
	New value	7.2	New `$AUTO` value.
Contact Section			
contact (section)	New	7.6	
rtp-address	Modified, moved	7.6	Formerly `call-address`; moved from `call` section.
max-ports	Moved	7.6	Moved from `x-config` section.
rtp-port	Moved	7.6	Moved from `x-config` section.
sip-address	New	7.6	Added in 7.6.x hot fix.
sip-ip-tos	New	7.6	Added in 7.6.x hot fix.
sip-port	Moved	7.6	Moved from `x-config` section.
	New	7.2	
Codecs Section			
codecs (section)	New	7.6	
codec-choice-priority	New	7.6	
packet-size	New	7.5	Added in release 7.5, documented in 7.6.
ptime-in-sdp	New	7.6	Added in release 7.6.006.01.
sip-annc-codecs	Modified, moved	7.6	Default and valid values changed; moved from `x-config` section.
	Value order changed	7.5	Default value was changed to list the less resource-intensive values first.
	New	7.2	

Table 101: Option Modifications in Stream Manager (Continued)

Option Name	Type of Change	Occurred in Release	Details
sip-annc-transcode	New	7.6	
sip-conf-codecs	Modified, moved	7.6	Default and valid values changed; moved from `x-config` section.
	See Details	7.5	• Default value was changed to list the less resource-intensive values first. • G.723 audio codec and supported video codecs can be specified
	New	7.2	
sip-g723-fmtp	New	7.6	
sip-g729-fmtp	New	7.6	Added the optional part [annexb=no] in release 7.6.004.01.
sip-h261-fmtp	Moved	7.6	Moved from `x-config` section.
	New	7.2	
sip-h263-fmtp	Moved	7.6	Moved from `x-config` section.
	New	7.2	
sip-h264-fmtp	See Details	7.6	Added in earlier release, documented in 7.6.
sip-http-codecs	Moved	7.6	Moved from `x-config` section.
	New	7.2	
sip-pcap-codecs	Modified, moved	7.6	Default and valid values changed; moved from `x-config` section.
sip-record-codecs sip-record-codec	Modified, moved	7.6	Formerly `sip-record-codec`; default and valid values changed; moved from `x-config` section.
	New	7.5	
Limits Section			
limits (section)	New	7.6	

Table 101: Option Modifications in Stream Manager (Continued)

Option Name	Type of Change	Occurred in Release	Details
conf-cleanup-timeout	Moved	7.6	Moved from `x-config` section.
	New	7.5	
file-cache-size	Moved	7.6	Moved from `x-config` section.
	New	7.2	
lost-leg-timeout	New	7.6	
max-mixer-delay	Moved	7.6	Moved from `x-config` section.
max-record-file-size	Moved	7.6	Moved from `x-config` section.
max-record-silence	Moved	7.6	Moved from `x-config` section.
max-record-time	Modified, moved	7.6	Default value changed; moved from `x-config` section.
rtcp-inactivity-timeout	Moved	7.6	Moved from `x-config` section.
rtp-stream-delay	Moved	7.6	Moved from `x-config` section.
	New	7.2	
sip-http-delay	Moved	7.6	Moved from `x-config` section.
	New	7.5	
sip-load-threshold	New	7.6	
X-Config Section			
log-trace-flags	Modified	7.6	Valid values changed.
	New	7.2	
rtp-close-delay	New	7.6	Added in earlier release, documented in 7.6.
rtp-ip-precedence	Removed	7.6	Replaced by `rtp-ip-tos`.
rtp-ip-tos	New	7.6	
sip-dtmf-delay	New	7.6	
sip-dtmf-duration	Modified	7.6	Default value and description changed.

Table 101: Option Modifications in Stream Manager (Continued)

Option Name	Type of Change	Occurred in Release	Details
sip-dtmf-method	New	7.6	
sip-dtmf-pause	New	7.6	Added in release 7.6.006.01.
sip-ip-tos	New	7.6	
sip-record-all-conf	Removed	7.6	
sip-record-base-name	Removed	7.6	
sip-conf-gain	New	7.5	
sip-record-codec	New	7.5	
sip-send-info	New	7.5	
h261-annc-fmts	New	7.5	
h263-annc-fmts	New	7.5	
h264-annc-fmts	New	7.5	
beep-on-rtp-nte	New	7.5	
sip-call-record-mode	New	7.5	
audio-file-format	New	7.2	
debug-level	Removed	7.2	
-pc	Removed	7.2	
mixer-buffer-range	Removed	7.2	

DMX

DMX is no longer supported with SIP Server, starting with release 8.0.

Network SIP Server

Table 102 lists configuration options that changed between the various releases of Network SIP Server.

Table 102: Option Modifications in Network SIP Server

Option Name	Type of Change	Occurred in Release	Details
Application Level > Options Tab > TServer			
default-route-destinations	New	7.5	Added in release 7.5.000.05
resolve-hostname	New	7.5	Added in release 7.5.000.09.
DN Level > Annex Tab > TServer Section			
default-route-destinations	New	7.5	Added in release 7.5.000.07

Chapter

27 SIP Server Solution Migration Procedures

This chapter discusses the migration procedures for release 8.1 and contains the following sections:

Please refer to "Migrating from IP Media eXchange to SIP Server" on page 553 for more information about previous release migration information.

Deploying the SIP Server Solution

This section describes the migration procedures for the SIP Server solution from the 7.2, 7.5, and 7.6 releases.

Note: References to SIP Server in these chapters also apply to Network SIP Server, except where noted.

Prerequisites for an 8.1 Framework Environment

SIP Server 8.1 integrates with Genesys Framework 8.1. If you are migrating your entire existing Genesys Framework to the 8.1 release of Framework, you must upgrade your Configuration Layer components to 8.1 before you migrate your SIP Server solution. If you are only upgrading your SIP Server solution, there are no special steps you need to take with your existing Configuration Layer. In both scenarios, the steps for migrating the SIP Server solution are the same.

Licensing

Prior to migrating your SIP Server solution, be aware that you need to take licensing issues into account. Starting with release 7.0, the licensing requirements for SIP Server have changed from previous releases. Please refer to the *Genesys Licensing Guide* and the *Framework 8.1 SIP Server Deployment Guide* or the *Framework 7.5 Network SIP Server Deployment Guide for* complete licensing information.

Starting with release 7.0, SIP Server refers to the license server for authentication. The new license server rules are described in the *Genesys Licensing Guide.*

Licensing Requirements for SIP Server

The following are short descriptions of the issues you must consider when deploying your new licensing for SIP Server:

- A stand-alone SIP Server serving a single site requires licenses to register all DNs it monitors. Single-site licenses are also required for all Network SIP Servers.
- SIP Servers operating with the `hot standby` redundancy require a special CTI HA technical license, which allows for high-availability implementations in addition to regular SIP Server licenses.
- SIP Servers performing multi-site operations require licenses that allow for such operations in addition to regular SIP Server licenses.

Licensing Prerequisites

Before starting your migration of SIP Server:

1. Obtain appropriate license files for 8.1 SIP Server.
2. Install Licensing Manager.

Other Migration Information

Related migration information that may help you migrate SIP Server is available elsewhere in this guide. See:

1. Chapter 2, “Licensing Migration,” on page 47
2. Framework migration information in Part Two of this guide
3. *Genesys Interoperability Guide*
4. Information on upgrades to other prerequisite Genesys components

SIP Server Migration Procedures

Use the following two sections to assist you in performing a basic upgrade to or rollback from pre-8.1 releases to 8.1, or rollback from release 8.1 to pre-8.1 releases of SIP Server.

SIP Server Upgrade Procedures

Perform the following steps for each SIP Server `Application` object whose data was converted from pre-8.1 releases of Configuration Database:

1. Store the existing configuration option settings in a `*.cfg` file using the Export utility in Configuration Manager. Preserve this `*.cfg` file in a secure location in case you need to rollback later. Refer to *Framework 8.1 Configuration Manager Help* for instructions on using the Export utility.
2. Install a SIP Server 8.1 application. For installation instructions, refer to the *Framework 8.1 SIP Server Deployment Guide.*
3. Verify the parameters on the `Start Info` tab of the SIP Server `Application` object in Configuration Manager—the SIP Server working directory, executable name, and command-line parameters.
4. Specify any new configuration options on the `Options` tab of the SIP Server `Application` object in Configuration Manager. See the *Framework 8.1 SIP Server Deployment Guide* for complete details about options. Also see "Configuration Options Common to All T-Servers" on page 415 of this guide for notes on updates to options.
5. If you have not previously used the centralized-logging and alarm-signaling capabilities of the Management Layer, but would like to do so now, add a connection to Message Server on the `Connections` tab of the SIP Server `Application` object in Configuration Manager.
6. If using Configuration Server Proxy for notifying this SIP Server about configuration changes, add Configuration Server Proxy to the `Connections` tab of the SIP Server `Application` object in Configuration Manager.

Refer to the "Start and Stop T-Server Components" chapter in the *Framework 8.1 SIP Server Deployment Guide* for startup instructions.

SIP Server Rollback Procedures

If you must return to your pre-8.1 Genesys installation:

1. Import the `*.cfg` file that has your pre-8.1 SIP Server configuration options to restore previously configured settings. Refer to *Framework 8.1 Configuration Manager Help* for instructions on using the Import utility.
2. Delete any new connections to server applications you have configured on the `Connections` tab of the SIP Server `Application` object in Configuration Manager.
3. Uninstall SIP Server 8.1.

Stream Manager Migration Procedures

Use the following two sections to assist you in performing a basic upgrade to or rollback from pre-7.6 releases to 7.6 or rollback from release 7.6 to pre-7.6 releases of Stream Manager.

Stream Manager Upgrade Procedures

Perform the following steps for each Stream Manager `Application` object whose data was converted from pre-8.1 releases of Configuration Database:

1. Store the existing configuration option settings in a `*.cfg` file using the Export utility in Configuration Manager. Preserve this `*.cfg` file in a secure location in case you need to rollback later. Refer to *Framework 8.1 Configuration Manager Help* for instructions on using the Export utility.
2. Install a physical Stream Manager 7.6 application. For installation instructions, refer to the *Stream Manager 7.6 Deployment Guide*.
3. Verify the parameters on the `Start Info` tab of the Stream Manager `Application` object in Configuration Manager—the Stream Manager working directory, executable name, and command-line parameters.
4. Specify any new configuration options on the `Options` tab of the Stream Manager `Application` object in Configuration Manager.

> **Note:** Many changes to configuration options have been made between release 7.5 and 7.6, including moving several options to new sections. For these moved options, changes to any existing configuration is not mandatory. Stream Manager also supports these moved options as configured in their previous sections. See "Stream Manager" on page 615 in this Migration Guide and the *Stream Manager 7.6 Deployment Guide* for more information about these changes.

5. If you have not previously used the centralized-logging and alarm-signaling capabilities of the Management Layer, but would like to do so now, add a connection to Message Server on the `Connections` tab of the Stream Manager `Application` object in Configuration Manager.
6. If using Configuration Server Proxy for notifying this Stream Manager about configuration changes, add Configuration Server Proxy to the `Connections` tab of the Stream Manager `Application` object in Configuration Manager.

Refer to the "Installing and Starting Stream Manager" chapter in the *Stream Manager 7.6 Deployment Guide* for startup instructions.

Stream Manager Rollback Procedures

If you must return to your pre-7.6 Genesys installation:

1. Import the `*.cfg` file that has your pre-7.6 Stream Manager configuration options to restore previously configured settings. Refer to *Framework 8.1 Configuration Manager Help* for instructions on using the Import utility.
2. Delete any new connections to server applications you have configured on the `Connections` tab of the Stream Manager `Application` object in Configuration Manager.
3. Uninstall Stream Manager 7.6.

DMX Migration Procedures

Since release 8.0, SIP Server 8.0 no longer supports DMX. No upgrade is required for 8.08.1 SIP Server..

Media Server Migration Procedures

This section describes the tasks and configuration changes that are required to migrate from Stream Manager 7.6 to Genesys Media Server 8.1.

Overview

The migration from Stream Manager 7.6 to Genesys Media Server 8.1 is not strictly migration because you must install a new installation of Media Server. However, it is possible, with proper planning, to retain your announcement files, recording directories, and through compatible configuration options, the existing functionality. In addition, Media Server provides some additional features and enhancements.

To facilitate migration, Genesys Media Server and Stream Manager can co-exist within the same deployment because they can operate independently. However, Genesys recommends that you do not configure a single instance of SIP Server to use both the Genesys Media Server and Stream Manager simultaneously, as the media servers.

Migration Strategy

Genesys recommends the following strategy for Stream Manager 7.6 migrations:

Migrate Framework

1. Migrate Management Framework.

Management Framework is the foundation for all Genesys products, solutions, and options and is a prerequisite in the 8.1 VPS. Upgrade to the following Genesys Framework components:

- Genesys Administrator 8.0.3 or later
- Configuration Server 8.0.2 or later

For information about migrating the layers and components of Management Framework, see Part 2, "Framework Migration" in this guide.

If you plan to upgrade Configuration Server, Genesys recommends that you first back up its configuration to an XML file. For more information, see the preliminary migration procedures in Part 19, "Genesys Voice Platform 8.x Migration" in this guide.

Upgrade SIP Server

2. If you have not already done so, upgrade to SIP Server 8.0.3 or later. See Part 7, "SIP Server Solution Migration" in this guide.

Migrate Stream Manager

3. Migrate Stream Manager 7.6 to Media Server 8.1:
   - Back up the configuration of your existing Stream Manager component.
   - Stop the Stream Manager component.
   - Uninstall Stream Manager.
   - Create and configure new, 8.1 Media Server `Application` object(s), and install the Media Control Platform/Media Server `Application(s)` on the host(s). See Chapter 5, "Preinstallation Activities" in the *Genesys Media Server 8.1 Deployment Guide*.
   - Start the Media Server.
   - Verify proper operation of new Media Server by checking its log for errors.
4. When Media Server is operational:
   - Migrate your announcement files and recording directories. See "Migrating Files and Directories".
   - Provision Media Server. See "Configuration Changes" on page 627 and Chapter 5, "Provisioning Media Server" in the *Genesys Media Server 8.1 Deployment Guide*.

Migrating Files and Directories

Use the steps in this section to prepare your announcement files and recording directories for migration.

Announcement Files

If your announcement files are in .zip archives, you must extract them to the announcement base directory before you can use them with Media Server 8.1. When you are unzipping the archives, choose the option to disregard the existing directory structures in the archive files.

The announcement base directory must also be provisioned in the configuration parameter, in either the `msml` or `netann` section of the Media Server `Application`, as follows:

- `[msml].play.basepath`
- `[netann].annc.basepath`

Recording Directories

If your recorded files are not specified in the full path format, place them under the directory that is provisioned with the following configuration parameter in the `msml` or `netann` section of the Media Server `Application`.

- `[msml].record.basepath`
- `[netann].record.basepath`

Configuration Changes

Table 103 lists and describes the configuration parameter changes that you will need to be aware of when you are provisioning Media Server. All of the Stream Manager configuration options listed here are configured in the Media Server `Application` with the exception of one, which is now configured in the Resource Manager `Application`.

Table 103: Changes to Configuration Parameters

Stream Manager	Media Server
`rtp-address` Default: `$HOST` Valid Values: `$HOST`, `$AUTO`, `<IP address>` Changes Take Effect: immediately	`[sip].localrtpaddr` Default: No default value Valid Values: `<IP address>` Changes Take Effect: start/restart
`rtp-port` Default: `8000` Valid Values: `1024-65535` Changes Take Effect: start/restart	`[mpc].rtp.portrange` Default: `20000 (portlow), 65535 (porthigh)` Valid Values: `1030 - 65535` Changes Take Effect: start/restart
`max-ports` Default: `2000` Valid Values: `4-65534` Changes Take Effect: immediately	Note: In Stream Manager, the `rtp.port` configuration option defines the `portlow` value, and the `max-ports` option defines the size of the port range. In Media Server, these options are replaced by a single option (`[mpc].rtp.portrange`).

Table 103: Changes to Configuration Parameters (Continued)

Stream Manager	Media Server
sip-port Default: 0 Valid Values: any valid port number Changes Take Effect: start/restart	[sip].localport Default: 5070 Valid Values 1030-65535 Changes Take Effect: start/restart
codec-choice-priority Default: offer Valid Values: offer, option (ignores the order in SDP, selects from the options specified in sip-annc-codecs, sip-conf-codecs, sip-record-codecs Changes Take Effect: immediately	[mpc].codecpref Default: r Valid Values: r (remote offered SDP takes preference), local Changes Take Effect: immediately
packet-size Default: g711=20, gsm-20, g723=30, g729=20 Valid Values: g711=10,20,30,40; gsm=20,40; g723=30,60; g729=10,20,30,40 Changes Take Effect: immediately	The transmission packet size is selected, based on the ptime factor that is offered/answered by the remote-end. If ptime is not specified, it is based on the configuration per codec. [mpc].<codec_name>.ptime Default: 20 (for all codecs) Valid Values: g711=10, 20, 30, 40, 60, 80, 100; gsm=20, 40, 60, 80, 100; or g729=10, 20, 30, 40, 60, 80, 100 Changes Take Effect: Upon program start-up
sip-annc-codecs Default: pcmu, pcma, msgsm, g729, g723 Valid Values: pcmu, pcma, gsm or msgsm, g729, g723, h261, h263, h264=N Changes Take Effect: immediately	[mpc].codec (applies to all services, annc, record, conference) Default: pcmu, pcma, g726, gsm, h263, h263-1998, telephone-event Valid Values: pcmu, pcma, g722, g726, g729, gsm, amr, amr-wb, tfci, h263, h263-1998, h264, telephone-event Changes Take Effect: immediately
sip-annc-transcode Default: pcmu, pcma, msgsm Valid Values: pcmu, pcma, gsm, msgsm, g723, g729 Changes Take Effect: immediately	[mpc].transcoders (applies to all services) Default: GSM G726 Valid Values: GSM, G722, G726, G729, AMR, AMR-WB, none Changes Take Effect: start/restart

Table 103: Changes to Configuration Parameters (Continued)

Stream Manager	Media Server
`sip-conf-codecs` Default: `pcmu, pcma, msgsm` Valid Values: `pcmu, pcma, gsm or msgsm, g729, g723, h261, h263, h264=N` Changes Take Effect: immediately	`[mpc].codec` (applies to all services, annc, record, conference) Default: `pcmu, pcma, g726, gsm, h263, h263-1998, telephone-event` Valid Values: `pcmu, pcma, g722, g726, g729, gsm, amr, amr-wb, tfci, h263, h263-1998, h264, telephone-event` Changes Take Effect: immediately
`sip-g723-fmtp` Default: empty string Valid Values: any string Changes Take Effect: immediately	G.723.1 is not supported.
`sip-g729-fmtp` Default: empty string Valid Values: any string Changes Take Effect: immediately	`[mpc].g729.fmtp` Default: empty string Valid Values: `annexb=yes`, or `annexb=no` Changes Take Effect: start/restart **Note:** Values for this parameter must be in lower case and are case sensitive.
`sip-h261-fmtp` Default: empty string Valid Values: any string Changes Take Effect: immediately	N/A because h.261 is not supported.
`sip-h263-fmtp` Default: empty string Valid Values: any string Changes Take Effect: immediately	GVP plays pre-encoded H.263 content only and H.263 fmtp cannot be configured.
`sip-h264-fmtp` Default: empty string Valid Values: any string Changes Take Effect: immediately	`[mpc].h264.fmtp` Default: `profile=b; level=1.1; packetizationmode=*;|profile=cb; level=1.1; packetizationmode=*;|profile=m; level=1.1; packetizationmode=*;|profile=e; level=1.1; packetization-mode=*;` Valid Values: string Changes Take Effect: start/restart

Table 103: Changes to Configuration Parameters (Continued)

Stream Manager	Media Server
`sip-http-codecs` Default: `pcmu` Valid Values: `pcmu, pcma, gsm, g729, g723` Changes Take Effect: immediately	`[mpc].codec` (applies to all services, annc, record, conference) Default: `pcmu, pcma, g726, gsm, h263, h263-1998, telephone-event` Valid Values: Changes Take Effect: immediately
`sip-pcap-codecs` Default: `pcmu,pcma,msgsm,g729,g723,h.261. h264=108` Valid Values: `pcmu, pcma, gsm, g729, g723, h261. h.263, h.264=N` Changes Take Effect: immediately	`[mpc].codec` (applies to all services, annc, record, conference) Default: `pcmu, pcma, g726, gsm, h263, h263-1998, telephone-event` Valid Values: `pcmu, pcma, g722, g726, g729, gsm, amr, amr-wb, tfci, h263, h263-1998, h264, telephone-event` Changes Take Effect: immediately
`sip-record-codecs` Default: `pcmu, pcma, msgsm` Valid Values: `pcmu, pcma, gsm or msgsm, g729, g723` Changes Take Effect: immediately	`[mpc].codec` (applies to all services, announce, record, conference) Default: `pcmu, pcma, g726, gsm, h263, h263-1998, telephone-event` Valid Values: `pcmu, pcma, g722, g726, g729, gsm, amr, amr-wb, tfci, h263, h263-1998, h264, telephone-event` Changes Take Effect: immediately
`Conf-cleanup-timeout` Default Value: `2` sec Valid Values: any time period Changes Take Effect: immediately	N/A
`file-cache-size` Default: `10 MB` Valid Values: `200-204800 KB` Changes Take Effect: immediately (All files played are kept in memory)	N/A

Table 103: Changes to Configuration Parameters (Continued)

Stream Manager	Media Server
max-mixer-delay Default: 60 msec Valid Values: Any time period Changes Take Effect: immediately (defines the max. size of jitter buffer)	[mpc].rtp.dejitter.delay Default: 0 Valid Values: 0-10000 (integer) Changes Take Effect: start/restart
	[mpc].rtp.dejitter.timeout Default: 100 Valid Values: 0-1000 (integer) Changes Take Effect: start/restart
max-record-silence Default: 0 Valid Values: Any time value Changes Take Effect: immediately for a new file	[Netann].record.maxrecordsilence Default: 0 Valid Values: non-negative integer (unit in msec) Changes Take Effect: immediately for a new file
max-record-time Default: 0 Valid Values: Any time value Changes Take Effect: immediately for a new file	[Netann].record.maxrecordtime Default: 0 Valid Values: non-negative integer (unit in msec) Changes Take Effect: immediately for a new file
rtcp-inactivity-timeout Default: 30 sec Valid Values: Any time period Changes Take Effect: immediately for a new file	[mpc].rtp.timeout Default: 60000 msec Valid Values: integer >= 0 Changes Take Effect: start/restart
rtp-stream-delay Default Value: 60 msec Valid Values: any time period Changes Take Effect: after restart	Not supported.
sip-http-delay Default Value: 120 msec Valid Values: any time period Changes Take Effect: immediately	For streaming devices, Annc from streaming device is not supported.

Table 103: Changes to Configuration Parameters (Continued)

Stream Manager	Media Server
`sip-load-threshold` Default Value: `0` Valid Values: any non-negative integer Changes Take Effect: immediately	Load balancing is performed by the Resource Manager.
`audio-file-format` Default Value: `.wav` Valid Values: `.au` or `.wav` Changes Take Effect: immediately	`[Netann].annc.defaultaudioext` Default Value: `.wav` Valid Values: `.au` or `.wav` Changes Take Effect: immediately
`beep-on-rtp-nte` Default Value: `false` Valid Values: `true, false` Changes Take Effect: immediately	Simultaneous transmission of Named Telephone Events (NTE) and audio Real-time Transport Protocol (RTP) packets is not supported. However, if this parameter is configured to send DTMF tones or to negotiate the use of either SIP INFO messages or telephony events, but you also want to send DTMF audio tones, use the [mpc].sdp.origin.[n] parameter to overwrite the DTMF tone transmission method. Media Server uses the configured DTMF tone transmission method to send DTMF tones if the session contains the matching origin header. A new configurable parameter is used to match the SIP origin header. `[mpc].sdp.map.origin.[n]` Default: empty string

Table 103: Changes to Configuration Parameters (Continued)

Stream Manager	Media Server
beep-on-rtp-nte (continued)	Valid Values: <origin address>/<session name> Where <origin address> is either a fully qualified domain name (FQDN) or an IP address. This value is matched against the address part of the o= line. **Note:** The value is set depending on which form the end point sends in the SDP. If the end point can send either form (FQDN or IP address), then two mpc.sdp.map.origin.[n] entries are used, setting one to the FQDN form and one to the IP address form. Where <session name> is the entire content of the SDP s= (after the s= part) line to match. For example, if the configuration parameter is set to 192.168.0.1/phone-call, Media Server matches using 192.168.0.1 in the address part of the o= line and the s= line must be s=phone-call. If both <origin address> and <session name> matches o= and s= respectively, then it is considered a match. If the [mpc].sdp.map.origin.[n] parameter matches, the DTMF tone type that is specified by the corresponding [mpc].sdp.map.origin.[n].dtmftype parameter is used. [mpc].sdp.map.origin.[n].dtmftype Default: INBAND Valid Values: INBAND, SIPINFO Changes Take Effect: when a new participant is created
cpd-greeting-am cpd-pause-human cpd-timeout	CPD is not supported through NETANN interface, it is available through the MSML interface to the Media Control Platform/Media Server. The Media Server MSML interface provides the same functionality in Call Progress Analysis (CPA) as the Stream Manager.
h261-annc-fmts Default: QCIF=2 Valid Values: QCIF(1-4), CIF(1-4) Changes Take Effect: immediately	H261 is not supported.
h263-annc-fmts Default: QCIF=2 Valid Values: SQCIF=(1-6), QCIF=(1-6), CIF=(1-6), CIF4=(1-6), CIF16=(1-6) Change Take Effect: immediately	[Netann].annc.h263videoformat Default: QCIF=2 Valid Values: SQCIF=(1-6), QCIF=(1-6), CIF=(1-6), CIF4=(1-6), CIF16=(1-6) Change Take Effect: immediately

Table 103: Changes to Configuration Parameters (Continued)

Stream Manager	Media Server
h264-annc-fmts Default: 42e00a=2 Valid Values: a comma-separated list of H.264 video formats Change Take Effect: immediately	The video file based video format is selected in the negotiated SDP. [mpc].h264.fmtp (supported in 8.1.2) used as guideline in the offered SDP.
log-trace-flags Default Value: +rtcp Valid Values: +ping, +rtp/nte, +rtp/dump, +rtcp, -rtcp Changes Take Effect: immediately	[ems].log and [log] sections
rtp-close-delay Default Value: 2 sec Valid Values: Any time period Changes Take Effect: immediately	N/A
sip-call-record-mode Default: mixed Valid Value: pcap, mix Changes Take Effect: immediately	[NetANN] conference.recordmode Default: mixed Valid Values: mixed—Disables pcap recording. Records a mix of all of the participants input into one regular recording container file. pcap— Enables pcap recording. Records each participants input into separate record-url-<unique-id>.cap file.
rtp-ip-tos Default: 0 Valid Values: 0 - 255 Changes Take Effect: immediately for a new RTP stream (Defines the value for the RTP IP header and ToS byte.)	[mpc] rtp.tos Default: 0 Valid Values: 0x10 - IPTOS_LOWDELAY, 0x20 - IPTOS_PREC_PRIORITY, 0x40 - IPTOS_PREC_CRITICAL, 0xB8 - DiffServ EF (Expedited Forward) Changes Take Effect: immediately for a new RTP stream
	[mpc] rtcp.tos Default: 0 Valid Values: 0x10 - IPTOS_LOWDELAY, 0x20 - IPTOS_PREC_PRIORITY, 0x40 - IPTOS_PREC_CRITICAL, 0xB8 - DiffServ EF (Expedited Forward) Changes Take Effect: immediately for a new RTCP stream

Table 103: Changes to Configuration Parameters (Continued)

Stream Manager	Media Server
sip-conf-gain Default: empty string Valid Values: comma separated list of orig-name=gain Changes Take Effect: when a new conference is created	[mpc].sdp.map.origin.[n] Default: An empty string Valid Values: <origin address>/<session name> Where <origin address> is either a fully qualified domain name (FQDN) or an IP address. This value is matched against the address part of the o= line. **Note:** The value is set depending on which form the end point sends in the SDP. If the end point can send either form (FQDN or IP address), then two mpc.sdp.map.origin.[n] entries are used, setting one to the FQDN form and one to the IP address form. Where <session name> is the prefix or the entire content of the SDP s= (after the s= part) line to match. For example, if the configuration parameter is set to 192.168.0.1/phone-call, the Media Server matches on the 192.168.0.1 in the address part of the o= line and requires that the s= line starts with s=phone-call. **Note:** If <session name> is an empty string, it matches any s= line. If both <origin address> and <session name> matches o= and s= respectively, it is considered a match. If the [mpc].sdp.map.origin.[n] parameter matches, the conference gain that is specified by the corresponding [mpc].sdp.map.origin.[n].confgain parameter is used. [mpc].sdp.map.origin.[n].confgain Default: 100 Valid Values: 0-1000 (integer) The factor that is specified in percentage. A value of 100 denotes no change, and a value of 30 denotes a new input volume of 30% of the original volume. Changes Take Effect: when a new participant is created
sip-dtmf-delay Default: 120 msec Valid Values: any time period Changes Take Effect: immediately	[mpc].dtmf.gap Default: 100 msec Value Values: 10 - 1000 msec Changes Take Effect: start/restart

Table 103: Changes to Configuration Parameters (Continued)

Stream Manager	Media Server
`sip-dtmf-duration` Default:`240 msec` Valid Values: `100 msec - 8 sec` Changes Take Effect: immediately	`[mpc].dtmf.duration` Default: `200 msec` Valid Values: `10 - 1000 msec` Changes Take Effect: start/restart
`sip-dtmf-method` Default: `both` Valid Values: `rfc2833, tone, both, alt` Changes Take Effect: immediately	`[mpc].rtp.dtmf.send` Default: `INBAND` Valid Values: `SIPINFO, INBAND, none` Changes Take Effect: immediately (applicable only when RFC 2833 is not negotiated)
`sip-send-info` Default: `auto` Valid Values: `true, false, auto` Changes Take Effect: immediately	`[mpc].sdp.map.origin.[n]` Default: empty string Valid Values: `<origin address>/<session name>` Changes Take Effect: start/restart See "`beep-on-rtp-nte`" on page 632 in this table for a complete description.
`max-record-file-size` Default: Any non-negative integer Valid Values: Can be in bytes or KB, MB, or GB. (If not specified, defaults to bytes.) Changes Take Effect: Immediately for a new file	`[mpc].maxrecordfilesize` Default: `0` (no limit) Valid Values: `0 - 4000000000` (in bytes) Changes Take Effect: Immediately for a new file

Feature and Functional Parity

This section describes Media Servers enhanced features and functionality, and the existing Stream Manager features and functionality that are not available in Media Server.

Enhanced Functionality

Table 104 lists various Stream Manager 7.6 functions and explains how they are enhanced or are changed in Media Server 8.1.

Table 104: Functionality and Enhancements

Stream Manager Functions	Media Server Enhancements
• Media files are selected, based on the order that is specified in `sip-annc-codecs` parameter. If transcoding is required between the selected media file and the transmit codec, they must both be present in the `sip-annc-transcode` parameter.	• The order that is specified in Session Description Protocol (SDP) negotiation is honored. The order of the resulting list of codec is then used to select the media file. Transcoding is performed as needed. The supported codec and transcodec is provisioned by configuring the `[mpc].codecs` and `[mpc].transcoders` parameters.
• A utility program is provided to perform off-line transcoding, and archive the converted audio files to a .zip archive.	• Real-time transcoding is supported, therefore the utility program is not provided. Use the Sox, SUPER, or GoldWave tools to perform offline transcoding, if required.
• Mixed stream mode recording is supported. By default, it is recorded as .wav and the codec plus the .wav extension is appended. It is always recorded in the format in which it is received.	• Mixed stream mode recording is supported. The file extension is selected, based on the first negotiated SDP format if the `record-content-type` parameter is not specified, or if it is based on the MIME-type that is specified in the `record-content-type` parameter. Recording occurs in the same format as the one that is specified by the desired file content.
• Generated record file names use a number that is increased sequentially for the ID part of the file name. For example, if the first recorded file name is `xxxx_1_pcmu.wav` and the second would be `xxxx_2_pcmu.wav`.	• Record file names are assigned a unique call-ID for the ID part of the file name.
• `pcap` mode is supported for conference recording. All participants in the same conference are recorded into the same `pcap` file For example, there is only one `pcap` file per conference. AMR `pcap` recording is not supported.	• `pcap` mode is supported for conference recording. The stream for each participant' is recorded into separate `pcap` files Each recording is separated into multiple `record-URL_<unique-id>.cap` files, each of which captures one participants input. This eliminates the need for all conference participant to use the same codec for transmission of `pcap` recording. In addition, `pcap` recording is supported for all audio codecs.
• Specification of a list of codecs that are to be negotiated for conferencing is supported.	• All platform-configured codecs that are to be negotiated for conferencing are supported.

Table 104: Functionality and Enhancements (Continued)

Stream Manager Functions	Media Server Enhancements
• When the `beep-on-rtp-nte` parameter value is set to `true`, an audible multi-frequency tone is generated when a Dual Tone Multi-Frequency (DTMF) signal is received from one of the conference participant in an RTP packet with an NTE payload.	• The simultaneous transmission of NTE and audio RTP packets is not supported. If a telephone event is negotiated by the SDP, the DTMF digits are sent by default by using the RFC 2833 standard method. If a telephone event is not negotiated, an inband DTMF tone (default) or SIP `INFO` message is sent, based on the `[mpc].rtp.dtmf.send` parameter. In both cases, the DTMF tone send method can be overridden if the end point matches one of the `[mpc].sdp.map.origin.[n]` parameters, where the method used for sending DTMF tones is determined by the corresponding `mpc.sdp.map.origin.[n].dtmftype` parameter. All of these parameters allow the method to be set to either inband DTMF tone or SIP `INFO`. To ensure interoperability with devices, configure the DTMF tone sending method, based on the SDP origin.
• The conference input gain/reduce factor is applied, based on the SDP origin/session field. The Stream Manager applies The input gain/reduce factor is applied to in-band DTMF tones, but not to the RFC 2833 standard method.	• The Genesys Media Server does not apply the input gain/reduce factor to in-band DTMF tone to the RFC 2833 standard method.
• The packet-size of the configuration parameter is used to specify the packet size that is used for RTP stream generation.	• The transmission packet size is selected, based on the `ptime` factor that is offered or answered by the remote-end. The packet-size is determined dynamically by the SDP at the endpoint, rather than a static platform configuration.

Media Server includes the following additional features and enhancements:

- Additional codecs supported, such as, G.722, G.722.2, AMR-NB, and new file containers, .3gp
- Interoperability with Resource Manager to support resource management functions, such as, load balancing, policy enforcement, and fail over detection.
- Deployment of a pool of Media Server resources that can be managed by the Resource Manager.
- Support for Secure Real-time Transport Protocol (SRTP).
- Support for Media Server Markup Language (MSML).

Unsupported Stream Manager Features

The following features are no longer supported:

- The proprietary HTTP streaming protocol from the real-time streaming Mayah Centauri devices.
- The smmix utility program. Media Server provides the run-time mixed full call recording function for mixing requirements.(Use PCAP recording only if you have your own tools and the infrastructure to support the use of PCAP files directly.)
- The Microsoft GSM, H.261, G.723.1 codecs.
- The proprietary Control Protocol for Stream Manager (CP4SM) that interfaces with T-Server for Cisco Unified Communications Manager and T-Server for Cisco UCCE.

Limitations

The following limitations exist for Media Server 8.1:

- Media Server is supported on Windows and Linux platforms only.
- The G.723.1 codec is not supported.

Genesys

Part

8 IVR Interface Option Migration

The chapters in this section describe the migration process from releases 6.5 to 7.0, 7.0 to 7.1, 7.1 to 7.2, 7.2 to 7.5, 7.5 to 8.0 and from release 7.*x* to release 8.0 of IVR Interface Option products. They also discuss component and option changes and the other Genesys software that supports and enables IVR Interface Option functionality.

The information is divided into the following chapters:

- Chapter 28, "Introduction to IVR Interface Option Migration," on page 643 provides background information on IVR Interface Option migration.
- Chapter 29, "Configuration Option Changes in IVR Interface Option," on page 651 offers a list of configuration options that have changed from IVR Interface Option 6.5 to 7.0, from 7.0 to 7.1, from 7.1 to 7.2, and from 7.2 to 7.5.
- Chapter 30, "IVR Interface Option Migration Procedures," on page 663 provides the required steps to migrate IVR Interface Option from 6.5 to 7.0, from 7.0 to 7.1, from 7.1 to 7.2, and from 7.2 to 7.5.
- Chapter 31, "Migration from Network T-Server for XML-Based GenSpec to IVR Server," on page 669 provides the required steps to migrate from Network T-Server 6.5 for XML-Based GenSpec to IVR Server 7.*x*.

Chapter

28 Introduction to IVR Interface Option Migration

This chapter discusses the preliminary migration procedures for IVR Interface Option 7.x and 8.x.

This chapter discusses the following topics:

Preliminary Migration Procedures

Note: If you want to upgrade your operating system, you must do this before migrating your Genesys product.

The migration process includes these preliminary procedures for IVR Interface Option 7.x and 8.x:

1. Review Chapter 1, "Migration Roadmap," on page 41 of this guide.
2. Examine the component changes in "Component Changes" on page 650 and the configuration option changes for IVR Interface Option 7.x and 8.x in Chapter 29, "Configuration Option Changes in IVR Interface Option," on page 651.

Notes: Please note that the tables in Chapter 29, "Configuration Option Changes in IVR Interface Option," on page 651 discuss changes that directly affect the migration of this product only.

For complete information about "What's New in This Release" of IVR Interface Option and how those releases function, please see the relevant release of the *IVR Interface Option IVR Server System Administrator's Guide*.

For a complete list of documentation relevant to the migration of this product, see "Reference Materials."

3. Review the licensing requirements for IVR Interface Option 7.x and higher. See the *Genesys Licensing Guide*.
4. Check the interoperability of the components of IVR Interface Option 7.x and higher during the upgrade procedures. See "Component Compatibility."
5. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.
6. Review other issues pertaining to the migration of IVR Interface Option 7.x and higher. See "IVR Architecture Changes" on page 645 and "Application Compatibility" on page 648.

Reference Materials

- *Genesys Licensing Guide*
- The relevant *IVR Interface Option IVR Server System Administrator's Guide*
- The relevant *IVR Interface Option IVR Driver System Administrator's Guide* for your IVR Driver
- *Genesys Interoperability Guide*

Component Compatibility

The Genesys IVR Interface Option Server and Driver connect to and communicate with the Genesys environment, which supports telephony functions, tracks call flow, and manipulates call data.

IVR Architecture Changes

The following sections provide IVR Option 7.x and 8.x architecture enhancements.

IVR Interface Option 8.x Architecture Enhancements

8.1 Release

The following features have been introduced in the 8.1 release:

- Support for IPv6.
- The ability to retrieve call information of type `ThirdPartyDN`.
- The ability to retrieve call information of type `UUID`.
- Support for Unresponsive Process Detection.
- Support for hiding user data within the logs.

Note: To take advantage of the full function of IVR Server 8.1, Genesys recommends that you use Framework 8.1 and IVR Driver 8.1.

8.0 Release

The following features have been introduced in the 8.0 release:

- A new API, `ilSRqUdataGetAll`, will return all known key-value pairs.
- The `ilWatch` API must be used during times on slow activity or inactivity to allow Keep-Alive messages to IVR Server.
- A new API, `ilConnectionOpenCfgServer80`, allows the definition of client-side ports and a backup Configuration Server.
- High Availability mode communication with IVR Server is now available.
- A new `getreply_with_location` configuration parameter can ask for the target switch to be returned.
- TLS is now supported.
- Client-side ports are now supported.
- A new API, `ilGetParmValue`, returns optional parameters.
- `ilConnectionOpenConfigServer` can be configured to return the value `false` instead of exiting when a connection to Configuration Server cannot be made.
- Configurable driver statistics are now available.

Note: To take advantage of the full function of IVR Server 8.0, Genesys recommends that you use Framework 8.0 and IVR Driver 8.0.

IVR Interface Option 7.x Architecture Enhancements

7.5 Release

With MPS 3.0, the Genesys IVR Driver functions in the *N+1 redundancy mode*. This is a Nortel system backup configuration in which one node serves as a backup (secondary) node for multiple operational (primary) nodes. You must install and configure the Genesys IVR Driver on each node. The redundant driver then functions as in Warm Standby mode. For more information, see the *Media Processing Server Series System Reference Manual*.

Note: To take advantage of the full function of IVR Server 7.5, Genesys recommends that you use Framework 7.5 and IVR Driver 7.5.

7.2 Release

With release 7.2, the IVR Interface Option architecture has been enhanced to include these features

- A new feature has been introduced into some of the IVR Drivers to maximize service availability through the use of Agent state manipulation.
- For IVR-In-Front configurations, IVR Server can report `EventDNOutOfService` and `EventDNBackInService` for DNs associated with IVR Ports. This feature can be used to prevent calls from being routed to an IVR in cases where the IVR Driver is not available to process new calls.

  Note: This feature is not supported for Load Balanced IVR Server configurations. It is available for stand-alone or Warm Standby configurations of IVR-In-Front mode configurations only.

- IVR Server can logout the agent assigned to an IVR Port when the IVR Port configuration object is disabled, and login the agent assigned to an IVR Port when the IVR Port configuration option is enabled.

  This feature allows individual IVR Ports to be taken out of service and allows all of the IVR Ports associated with an IVR object to be disabled when the IVR configuration object is disabled.
- An IVR Server instance can be taken out of service without impacting existing calls using the new flow control feature. By setting the new configuration option `flow-control` in section `IServer` to value `true`, IVR Server will inform connected IVR Drivers that no new calls from this IVR will be accepted.
- IVR Server supports Unicode in user data provided by the GVP platform. Unicode character data is transcoded by IVR Server into a specific character encoding prior to attaching user data to a call. IVR Server transcodes user data from this specific character encoding back to Unicode when providing user data to the GVP platform. The resultant Unicode must be limited to no more than two byte unicodes. Only UTF-8 characters of one or two bytes are supported.

Note: To take advantage of the full function of IVR Server 7.2, Genesys recommends that you use Framework 7.2 and IVR Driver 7.2.

7.1 Release

With release 7.1, the IVR Interface Option architecture has been enhanced to include these features:

- IVR Server can now be configured to specify the work mode at the time of Agent Login.
- IVR Server (in IVR Network T-Server mode) now supports the Network Call Monitoring feature which allows the CTI-less T-Server of the Expert Contact Solution to receive Call Monitoring Events such as call created, call deleted, call party added, and call party deleted.
- IVR Server now supports the predictive dialing method used by Genesys outbound components: Outbound Contact Solution and Voice Callback Solution.
- The IVR Configuration Wizard now supports configuration of the IVR Server in IVR Network T-Server mode.

Note: To take advantage of the full function of IVR Server 7.1, Genesys recommends that you use Framework 7.1 and IVR Driver 7.1.

7.0 Release

With release 7, the IVR Interface Option architecture has been enhanced to include these features:

- In addition to the IVR-In-Front and the IVR-Behind-Switch configuration modes, IVR Server can now be configured in IVR Network T-Server mode. This mode provides functionality previously available in the Network T-Server 6.5 for XML-Based GenSpec product offering.
- The Genesys IVR Interface Option Wizard is available for IVR Interface Option 7.0. The IVR Server and IVR Driver applications can be configured using the wizard. For the IVR Drivers for Aspect (UnixWare only) and CONVERSANT, you can use the wizard to configure ports and DNs on the IVR object, but not on the `IVR_Driver` application itself.
- The IVR Driver must still be installed manually. See the installation and configuration instructions provided in the IVR Server and IVR Driver *System Administrator's Guides*.

Note: To take advantage of the full function of IVR Server 7.0, Genesys recommends that you use Framework 7.0 and IVR Driver 7.0.

Application Compatibility

The following sections indicate application compatibility issues to be considered when migrating to a new release.

When Migrating from 7.x to 8.x

Applications migrating to use the 8.x I-Library, must now ensure that they call the `ilWatch()` function periodically to provide cycles to the I-Library.

When Migrating from 6.5 to 7.0, 7.1, 7.2, or 7.5

User applications written to use Genesys IVR Interface Option 6.5 are compatible with IVR Interface Option 7.0, 7.1, 7.2, or 7.5. For example, scripts assembled in Genesys IVR Interface Option 6.5 are compatible with IVR Interface Option 7.0, 7.1, 7.2, or 7.5 with minimal changes. 6.1 Drivers are not compatible with 6.5+ IVR Server.

- For the `GetCallInfo` function, if a value is not available for a given key (like `ANI`), the default behavior is that the string `NULL` is returned for that key. In IVR Driver 6.5, the string `Not Available` was returned instead. If your applications use the string `Not Available`, you can keep the 6.5 behavior. For all 7.0, 7.1, 7.2, or 7.5 IVR Drivers *except* those on UnixWare platforms, on the `Options` tab of the `IVR_Driver` application's `Properties` dialog box, set the `compat65` option to `yes` in the `ivr_server_interface` section. For the IVR Drivers for Aspect (UnixWare only) and CONVERSANT, set the `compat65` option to `yes` in the `DataTransport` section of the `Annex` tab on the `IVR` object's `Properties` dialog box.
- For the `UDataGetKVP` function, if a key is given that is not in the current call information, the default behavior is that the string `NoMatch` is returned. In IVR Driver 6.5, the string `Error NoMatch` was returned instead. If your applications use the string `Error NoMatch`, you can keep the 6.5 behavior. For all 7.0, 7.1, 7.2, or 7.5 IVR Drivers *except* those on UnixWare platforms, on the `Options` tab of the `IVR_Driver` application's `Properties` dialog box, set the `compat65` option to `yes` in the `ivr_server_interface` section. For the IVR Drivers for Aspect (UnixWare only) and CONVERSANT, set the `compat65` option to `yes` in the `DataTransport` section of the `Annex` tab on the `IVR` object's `Properties` dialog box.
- The IVR Server can now be configured to participate in Genesys centralized logging. IVR Driver and IVR Server log events are available through the Genesys Message Server and the Solution Control Interface when you configure centralized logging. See the *IVR Interface Option 7.x IVR Server System Administrator's Guide* for information on how to configure centralized logging. The log events are available in the latest *Combined Log Events Help*, which you can download from the Genesys Technical Support website at `http://genesys.com/support`.

- The `StatGet` function is not supported in IVR Interface Option 7.x and higher. You should use `StatPeek` instead. For more information, see the description for `StatPeek` in the *System Administrator's Guide* for your IVR Driver or in the *Genesys Developer Program 7.*x *IVR SDK XML Developer's Guide.*
- The `RouteDone` function is not supported in IVR Interface Option 7.x and higher. Instead, the IVR Server sends a `route used` message to the Universal Routing Server (URS) automatically. For more information, see the description of the `RouteRequest` function in the *System Administrator's Guide* for your IVR Driver or in the *Genesys Developer Program 7.*x *IVR SDK XML Developer's Guide.*
- Colons in user data keys can be used when attaching user data, but not when retrieving user data.
- You can use the IVR Interface Option Wizard to define and configure IVRs, ports, and DNs. This wizard can be used to configure an entire range of ports and DNs at the same time, rather than individually. The manual configuration steps, which are located in the *IVR Interface Option 7.*x *IVR Server System Administrator's Guide*, can still be used to configure IVR ports one at a time. For the IVR Drivers for Aspect (UnixWare only) and CONVERSANT, you can use the wizard to configure ports and DNs on the IVR object, but not on the `IVR_Driver` application.
- A new `IVR_Driver` application must be configured for use with IVR Driver and IVR Server for releases 7.0, 7.1, 7.2, or 7.5. This new application is not available or required for the IVR Driver for Aspect CSS on UnixWare or the IVR Driver for CONVERSANT.
- New configuration steps are required for the IVR Driver configuration file. See the *System Administrator's Guide* for your IVR Driver for more information.
- New statistics for retrieving the position in queue and the estimated wait time for calls are available for IVR Driver 7.0, 7.1, 7.2, and 7.5 through attached user data from URS. See the *Universal Routing 7 Reference Guide* for more information.
- IVR Library and IVR Server log events are now available through the Genesys Message Server when you configure centralized logging. To enable this feature in your IVR Driver, you must use the new configuration parameters in the IVR Driver configuration file. These new logging functions are not available for the IVR Drivers for Aspect CSS on UnixWare and CONVERSANT.
- Genesys G7 licensing is required for IVR Server 7.0, 7.1, 7.2, and 7.5. IVR Server 7.0, 7.1, 7.2, and 7.5 support licensing for IVR-In-Front, IVR-Behind-Switch, IVR Network T-Server, and IVR Network T-Server Routing configuration modes. For more information, see the *Genesys Licensing Guide* and the T-Server common configuration options appendix in the *IVR Interface Option 7.*x *IVR Server System Administrator's Guide*.

- LCA (Local Control Agent) must be installed on the same machine as the IVR and the IVR Driver for the IVR Drivers 7.0, 7.1, 7.2, and 7.5 to run. This does not apply to the IVR Drivers 7.0, 7.1, 7.2, or 7.5 for Aspect CSS on UnixWare and CONVERSANT.

Note: IVR Driver 7.*x* requires the use of IVR Server 7.*x* and Genesys Framework 7.*x*. Genesys 7.*x* licensing is also required.

For other restrictions, see the Release Notes for the IVR Server and your IVR Driver for release 7.0, 7.1, 7.2, or 7.5.

Component Changes

The following sections indicate component changes for releases.

8.0 Release In release 8.0 the I-Library component is available as a separate download for patch releases.

7.x Release The following items have changed from release 6.5 to 7:

- **Licensing**—Starting from 7.0 release, IVR Server requires Genesys licensing. For more information, see the *Genesys Licensing Guide* and the T-Server common configuration options appendix in the *IVR Interface Option IVR Server System Administrator's Guide.*

Additional Information about Migration

The following information is also pertinent to the migration of IVR Interface Option:

- IVR Interface 6.1 must be migrated first to IVR Interface Option release 6.5 and then to release 7.0, 7.1, 7.2, 7.5, 8.0, or 8.1.

Notes: Prior to IVR Interface Option 7.1, all Genesys supplied IVR Drivers were packaged on a single CD. With IVR Interface Option 7.1, 7.2, and 7.5, each vendor Driver is on a separate CD; therefore, if you have multiple vendor IVR types, you will need to obtain one CD for each of your IVR types. With IVR Interface Option 8.x, all Genesys supplied IVR Drivers are packaged on a single CD.

For an overview about migration issues, please see Chapter 1, "Migration Roadmap," on page 41.

Chapter

29 Configuration Option Changes in IVR Interface Option

This chapter lists the changes in configuration options from IVR Interface Option between successive releases from 6.5 onwards. In each case, details of the option change are given along with specific configuration instructions, when applicable. As with component configuration in Configuration Manager, the following configuration options are divided into sections.

The options listed here are cumulative from the 6.5 release of IVR Interface Option. Read through all the pertinent tables carefully to determine which options offer new or changed functionality for your IVR Server and IVR Driver.

This chapter discusses the following topics:

Complete information on each configuration option supported for IVR Interface Option for the current release is available in the relevant *IVR Interface Option IVR Server System Administrator's Guide*.

IVR Server Configuration Options

This section identifies changes in configuration options between successive versions of IVR Server.

IVR Server Changes from 8.0 to 8.1

Table 105 lists configuration options that have changed between 8.0 and 8.1 releases of IVR Server. For details about new features, see the *IVR Interface Option 8.1 IVR Server System Administrator's Guide*.

Table 105: Option Changes 8.0 to 8.1—IVR Server

Option Name	Type of Change	Details
TServer_IVR: XmlSap Section		
source-encoding	New in 8.0	
TServer_IVR: pgf-debug Section		
hide-user-data	New in 8.1	

IVR Server Changes from 7.5 to 8.0

No changes are required for IVR Server 8.0 operation. For details about new features, see the *IVR Interface Option 8.0 IVR Server System Administrator's Guide*.

IVR Server Changes from 7.2 to 7.5

No changes are required for IVR Server 7.5 operation. For details about new features, see the *IVR Interface Option 7.5 IVR Server System Administrator's Guide*.

IVR Server Changes from 7.1 to 7.2

No changes are required for IVR Server 7.2 operation. For details about new features, see the *IVR Interface Option 7.2 IVR Server System Administrator's Guide*.

IVR Server Changes from 7.0 to 7.1

No changes are required for IVR Server 7.1 operation. For details about new features, see the *IVR Interface Option 7.1 IVR Server System Administrator's Guide*.

IVR Server Changes from 6.5 to 7.0

This section discusses new and enhanced configuration options required for IVR Server 7.0 operation. For existing customers, where a 6.5 configuration option has been updated for release 7, details of the update are given along with specific configuration instructions, when applicable.

Table 106 lists configuration options that have changed between 6.5 and 7.0 releases of IVR Interface Option. If a configuration option has been replaced with another that enables the same functionality, the new option name and section (if applicable) are noted.

Note: When options are described in Table 106 as `Moved` from one chapter to another, both chapters are in the *IVR Interface Option 7 IVR Server System Administrator's Guide.*

Table 106: Option Changes 6.5 to 7.0—IVR Server

Option Name	Type of Change	Details
DataTransport Section		
See "IVR Driver Changes from 7.0 to 7.1" on page 654.		
extrouter		
Note: You should only configure external routing on the `TServer_IVR` application if you are using the IVR-In-Front or dual (IVR-In-Front and IVR-Behind-Switch) configuration mode. If you are using only the IVR-Behind-Switch configuration mode, external routing should be configured on the premise T-Server application instead.		
InFront Section		
UseQueue	New	No default value. Valid value is any valid ACD queue name.
IServerGLMSap Section		
checkout-interval	New Required	Valid values are in the range of `600 seconds` to `3600 seconds`.
operation-mode	New Required	Valid Values: `IVR`, `NTS`.

IVR Driver Configuration Options

This section identifies changes in configuration options between various versions of IVR Drivers.

IVR Driver Changes from 7.5 to 8.0

Table 107 outlines the new and enhanced functionality of options for 8.0 IVR Driver. For details about new features, see the *IVR Interface Option 8.0 IVR Server System Administrator's Guide*.

Table 107: Option Changes 7.5 to 8.0—IVR Driver

Option Name	Type of Change	Details
iserver_mode_hotstandby New		
getreply_with_location New		
cfg-server-response	New	
load_sharing_iservers_client_hosts	New	
load_sharing_iservers_client_ports	New	
log_print_statistics	New	
log_print_statistics_reset	New	

IVR Driver Changes from 7.2 to 7.5

No changes are required for IVR Driver 7.5 operation. For details about new features, see the *IVR Interface Option 7.5 IVR Server System Administrator's Guide*.

IVR Driver Changes from 7.1 to 7.2

No changes are required for IVR Driver 7.2 operation. For details about new features, see the *IVR Interface Option 7.2 IVR Server System Administrator's Guide*.

IVR Driver Changes from 7.0 to 7.1

This section discusses new and enhanced configuration options required for IVR Driver 7.1 operation. Because of limitations on the UnixWare platform, the IVR Drivers 7.1 for Aspect CSS on UnixWare and for CONVERSANT use different configuration options than the rest of the release 7.1 IVR Drivers.

Configuration Option Changes from 7.0 to 7.1 —Aspect (UnixWare Only) and CONVERSANT

Table 108 shows the configuration options that have changed between the 7.0 and 7.1 releases of the IVR Drivers for Aspect CSS on UnixWare and CONVERSANT.

Table 108: Option Changes 7.0 to 7.1—IVR Drivers for Aspect (UnixWare Only) and CONVERSANT

Option Name	Type of Change	Details
DataTransport Section		
compat65	New	Valid Values: `yes`, `no`.
log_file_backup_name_short	Removed	
time_hb_is	Removed	

Configuration Option Changes from 7.0 to 7.1 —Edify

Table 110 on page 658 shows the configuration options that have changed between the 7.0 and 7.1 releases of the IVR Driver for Edify. Also, the IVR Driver for Edify is configured to automatically run as a Windows Service in release 7.1.

Configuration Option Changes from 7.0 to 7.1 —Microsoft Speech Server

The 7.0 release of the IVR Driver for Microsoft Speech Server contained the same functions as the 7.0 UnixWare drivers. The 7.1 release of the IVR Driver for Microsoft Speech Server has been upgraded to provide the same functions as the other (non-UnixWare) drivers.

Table 109 lists the options that have changed since the 7.0 release for the IVR Driver for Microsoft Speech Server. If a configuration option has been replaced with another that enables the same functionality, the new option name and section (if applicable) are noted.

Table 109: Option Changes 7.0 to 7.1—Microsoft Speech Server

Option Name	Type of Change	Details
ivr_server_interface Section		
compat65	New	Valid Values: `yes`, `no`.

Table 109: Option Changes 7.0 to 7.1—Microsoft Speech Server (Continued)

Option Name	Type of Change	Details
load_sharing_iservers	Changed Moved	For release 7.1, the list must contain *all* load-sharing I-Servers, including the one that will serve as the primary (in the case of Warm Standby). Option and documentation moved from `DataTransport` section to new `ivr_server_interface` section.
time_recon_is	Changed Moved	Valid values changed to any integer greater than or equal to `1000`. Option and documentation moved from `DataTransport` section to new `ivr_server_interface` section.
log_content Section		
log_dbg	Removed	
log_file_backup_amount	Removed	
log_file_backup_name_short	Removed	
log_file_name	Removed	
log_file_size	Removed	
print_options	Removed	
time_hb_is	Removed	
log_print_level	New	Specifies the level of logging for debug messages. Valid Values: `flow`, `xml`, `debug`, `detail`, `none`.
log_print_date	Moved	Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_hb	Moved	Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_name	Changed Moved	Default value changed from `No` to `Yes`. Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_recv	Moved	Option and documentation moved from `DataTransport` section to new `log_content` section.

Table 109: Option Changes 7.0 to 7.1—Microsoft Speech Server (Continued)

Option Name	Type of Change	Details
log_print_send	Moved	Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_time	Moved	Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_time_ms	Changed Moved	Default value changed from `No` to `Yes`. Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_timeouts	Moved	Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_udata	Changed Moved	Default value changed from `Yes` to `No`. Option and documentation moved from `DataTransport` section to new `log_content` section.

Configuring the .ini File for IVR Driver for Microsoft Speech Server

For the IVR to communicate with the IVR Driver and the IVR Server, you must configure the `MSSSIsvr.ini` file. Several of the options in this file have changed from release 7.0 to 7.1.

- For the 7.0 configuration instructions, see *IVR Interface Option 7 IVR Driver for Microsoft Speech Server System Administrator's Guide.*
- For the 7.1 configuration instructions, see *IVR Interface Option 7.1 IVR Driver for Microsoft Speech Server System Administrator's Guide.*

Configuration Option Changes from 7.0 to 7.1 —All Other Drivers

Table 110 shows the configuration option changes from release 7.0 to release 7.1 for these IVR Drivers:

- IVR Driver for Aspect on Solaris
- IVR Driver for MPS
- IVR Driver for Show N Tel
- IVR Driver for WVR for AIX
- IVR Driver for WVR for Windows

Table 110: Option Changes 7.0 to 7.1—All Non-UnixWare IVR Drivers

Option Name	Type of Change	Details
ivr_server_interface Section		
compat65	New	Valid Values: `yes`, `no`.

IVR Driver Changes from 6.5 to 7.0

This section discusses new and enhanced configuration options required for IVR Driver 7.0 operation. Because of limitations on the UnixWare platform, the IVR Drivers 7.0 for Aspect (UnixWare only) and CONVERSANT use different configuration options than the rest of the release 7.0 IVR Drivers.

Configuration Option Changes from 6.5 to 7.0 —Aspect (UnixWare Only) and CONVERSANT

Table 111 lists the options that have changed since the 6.5 release for the IVR Drivers for Aspect CSS on UnixWare and CONVERSANT. If a configuration option has been replaced with another that enables the same functionality, the new option name and section (if applicable) are noted.

Table 111: Option Changes 6.5 to 7.0—Aspect (UnixWare Only) and CONVERSANT

Option Name	Type of Change	Details
DataTransport Section		
log_file_backup_name_short	Removed	
time_hb_is	Removed	
log_print_level	New	Valid Values: `flow`, `xml`, `debug`, `detail`, `none`.
log_file_name	Changed	Default value changed from `No default value` to `con`.
log_file_backup_amount	Changed	Default value changed from `No default value` to `0`.
time_recon_is	Changed	Valid values changed to any integer greater than or equal to `1000`.
log_print_name	Changed	Default value changed from `No` to `Yes`.
log_print_time_ms	Changed	Default value changed from `No` to `Yes`.

Table 111: Option Changes 6.5 to 7.0—Aspect (UnixWare Only) and CONVERSANT (Continued)

Option Name	Type of Change	Details
log_print_udata	Changed	Default value changed from `Yes` to `No`.
log_dbg	Changed	Changes take effect `After Driver is restarted`, and not `Immediately`.

Configuration Option Changes from 6.5 to 7.0 —All Other Drivers

Because IVR Driver 7.0 requires the new `IVR_Driver` application, all IVR Drivers 7.0 except Aspect CSS on UnixWare and CONVERSANT require new configuration options and the reconfiguration of some existing options. Changes in this section apply to the IVR Driver for Aspect on Solaris platforms. Table 112 on page 659 lists the options that are new or have changed since the 6.5 release. If a configuration option has been replaced with another that enables the same functionality, the new option name and section (if applicable) are noted.

Note: Configuration options that were previously configured on the `Annex` tab of the `IVR` object are now configured on the `Options` tab of the new `IVR_Driver` application. New options are also configured on the `Options` tab of the `IVR_Driver` application.

Table 112: Option Changes 6.5 to 7.0—All Other Drivers

Option Name	Type of Change	Details
ivr_server_interface Section		
load_sharing_iservers	Changed Moved	For release 7, the list must contain *all* load-sharing I-Servers, including the one that will serve as the primary (in the case of Warm Standby). Option and documentation moved from `DataTransport` section to new `ivr_server_interface` section.
time_recon_is	Changed Moved	Valid values changed to any integer greater than or equal to `1000`. Option and documentation moved from `DataTransport` section to new `ivr_server_interface` section.
log_content Section		
log_dbg	Removed	

Table 112: Option Changes 6.5 to 7.0—All Other Drivers (Continued)

Option Name	Type of Change	Details
log_file_backup_amount	Removed	
log_file_backup_name_short	Removed	
log_file_name	Removed	
log_file_size	Removed	
print_options	Removed	
time_hb_is	Removed	
log_print_level	New	Specifies the level of logging for debug messages. Valid Values: `flow`, `xml`, `debug`, `detail`, `none`.
log_print_date	Moved	Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_hb	Moved	Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_name	Changed Moved	Default value changed from `No` to `Yes`. Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_recv	Moved	Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_send	Moved	Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_time	Moved	Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_time_ms	Changed Moved	Default value changed from `No` to `Yes`. Option and documentation moved from `DataTransport` section to new `log_content` section.

Table 112: Option Changes 6.5 to 7.0—All Other Drivers (Continued)

Option Name	Type of Change	Details
log_print_timeouts	Moved	Option and documentation moved from `DataTransport` section to new `log_content` section.
log_print_udata	Changed Moved	Default value changed from `Yes` to `No`. Option and documentation moved from `DataTransport` section to new `log_content` section.

Chapter

30 IVR Interface Option Migration Procedures

This chapter discusses the migration procedures between successive releases from 6.5 onwards. It contains the following sections:

Upgrading IVR Server

This section provides instructions on how to migrate and rollback between various versions of IVR Server.

Upgrading from 8.0 to 8.1

There are no configuration changes required when migrating from 8.0 to 8.1.

Upgrading from 7.5 to 8.0

There are no configuration changes required when migrating from 7.5 to 8.0.

Upgrading from 7.2 to 7.5

There are no configuration changes required when migrating from 7.2 to 7.5.

Upgrading from 7.1 to 7.2

There are no configuration changes required when migrating from 7.1 to 7.2.

Upgrading from 7.0 to 7.1

There are no configuration changes required when migrating from 7.0 to 7.1.

Upgrading from 6.5 to 7.x

Procedures

1. Store the existing configuration option settings in a `*.cfg` file using the Export utility in Configuration Manager. Preserve this `*.cfg` file in a secure location in case of rollback. Refer to the *Framework 7.x Configuration Manager Help* for instructions on using the Export utility.
2. Use the IVR Interface Option Wizard in configure mode in Configuration Manager to upgrade existing IVR Interface Option 6.5 applications to release 7.0, 7.1, 7.2, or 7.5. If you want to preserve your 6.5 applications, you can use the Genesys Wizard Manager to create new applications for release 7.0, 7.1, 7.2, or 7.5. For more information on how to use these wizards, see the *IVR Interface Option 7.x IVR Server System Administrator's Guide.*
3. If you have not previously used the centralized-logging and alarm-signaling capabilities of the Management Layer, but would like to do so now, add a connection to Message Server on the `Connections` tab of the `TServer_IVR` application in Configuration Manager.
4. If you use Configuration Server Proxy for notifying the IVR Server about configuration changes, add Configuration Server Proxy to the `Connections` tab of the `TServer_IVR` application in Configuration Manager.

Rollback Instructions: 7.x or 8.0 to 6.5

If returning to your 6.5 Genesys installation:

1. To restore previously configured settings, import the `*.cfg` file into which you exported IVR Server 6.5 configuration options. Refer to the relevant *Framework Configuration Manager Help* for instructions on using the Import utility.
2. Delete any new connections to server applications you have configured on the `Connections` tab of the `TServer_IVR` and `I-Server` applications in Configuration Manager.
3. Delete the `I-Server` application and any `IVR` or IVR port objects that were created for this installation.

   Note: If your 6.5 configuration relies on any of these connections, do not delete them.

4. Uninstall release 7.x or higher of the `TServer_IVR` application.

Upgrading IVR Drivers

This section provides instructions on how to migrate and rollback between various versions of IVR Drivers.

Because of limitations on the UnixWare platform, the IVR Drivers for Aspect CSS on UnixWare and CONVERSANT do not support the new functions in IVR Driver 7.x or 8.0. Therefore, these two drivers have different upgrade procedures than the rest of the release 7.x and 8.0 IVR Drivers.

Note: Prior to IVR Interface Option 7.1, all Genesys supplied IVR Drivers were packaged on a single CD. From IVR Interface Option 7.1, each vendor Driver is on a separate CD, therefore if you have multiple vendor IVR types, you will need to obtain one CD for each of your IVR types, until Genesys 8.0 at which time all drivers are placed onto one CD.

IVR Driver 7.0 to 7.1, 7.2, 7.5 or 8.0 Upgrade Procedures, or from 7.1 to 7.2, 7.5, or 8.0 Upgrade Procedures, or from 7.2 to 7.5, or 8.0 Upgrade Procedures, or from 7.5 to 8.0 Upgrade Procedures —Aspect CSS on UnixWare and CONVERSANT

None required.

Note: Aspect CSS Driver is not released in 8.0.

IVR Driver 7.1, 7.2, 7.5, or 8.0 to 7.0 Rollback Instructions, or from 7.2, 7.5, or 8.0 to 7.1 Rollback Instructions, or from 7.5 or 8.0 to 7.2 Rollback Instructions, or from 8.0 to 7.5 Rollback Instructions —Aspect CCS on UnixWare and CONVERSANT

To return to your 7.0, 7.1, 7.2, or 7.5 Genesys installation:

- Uninstall IVR Driver 7.1, 7.2, 7.5, or 8.0.
- Reinstall IVR Driver 7.0, 7.1, 7.2, or 7.5.

IVR Driver 7.0 to 7.1, 7.2 or 7.5 Upgrade Procedures, or from 7.1 to 7.2 or 7.5 Upgrade Procedures, or from 7.2 to 7.5 Upgrade Procedures —Microsoft Speech Server

1. Copy and rename the existing configuration file for your IVR Driver 7.0, 7.1, or 7.2. Customize the IVR Driver 7.1, 7.2, or 7.5 configuration file using the instructions provided in the *IVR Interface Option 7.x IVR Driver for Microsoft Speech Server System Administrator's Guide*.

2. Uninstall the Customer Test Package (CTP) for release 7.0, 7.1, or 7.2.
3. Uninstall the IVR Driver for Microsoft Speech Server 7.0, 7.1, or 7.2.
4. Since the `IVR_Driver` application is new for release 7.x and required, you must create a new `IVR_Driver` application. You can use the Genesys Wizard Manager to create an `IVR_Driver` application, or you can use the IVR Interface Option Wizard in configure mode in Configuration Manager to upgrade your existing IVR objects to release 7.1, 7.2, or 7.5. Creating the `IVR_Driver` application is part of the wizard upgrade process. For more information on how to use these wizards, see the *IVR Interface Option 7.x IVR Server System Administrator's Guide.*
5. Install the Customer Test Package (CTP) for release 7.1, 7.2, or 7.5.
6. Install release 7.1, 7.2, or 7.5 of the IVR Driver for Microsoft Speech Server.

Note: Microsoft Speech Server Driver is not released in 8.0.

IVR Driver 7.1, 7.2, or 7.5 to 7.0 Rollback Instructions, or from 7.2 or 7.5 to 7.1 Rollback Instructions, or from 7.5 to 7.2 Rollback Instructions —Microsoft Speech Server

To return to your 7.0, 7.1, or 7.2 Genesys installation:

1. Stop the IVR Driver for Microsoft Speech Server 7.1, 7.2, or 7.5.
2. Stop Internet Information Services (IIS) on the Microsoft Web Server.
3. Back up the Web Server system to preserve your IVR Driver for Microsoft Speech Server 7.0, 7.1, or 7.2 profiles.
4. Uninstall the IVR Driver for Microsoft Speech Server and the Customer Test Package (CTP) for release 7.1, 7.2, or 7.5.
5. Install the IVR Driver for Microsoft Speech Server and CTP for release 7.0, 7.1, or 7.2.
6. Configure the IVR Driver for Microsoft Speech Server 7.0, 7.1, or 7.2 and the CTP 7.0, 7.1, or 7.2 using the instructions in the *IVR Interface Option 7.x IVR Driver for Microsoft Speech Server System Administrator's Guide.*

Note: Microsoft Speech Server Driver is not released in 8.0.

IVR Driver 7.0 to 7.1, 7.2, 7.5, 8.0, or 8.1 Upgrade Procedures,
or from 7.1 to 7.2 7.5, 8.0, or 8.1 Upgrade Procedures,
or from 7.2 to 7.5, 8.0, or 8.1 Upgrade Procedures,
or from 7.5, 8.0, or 8.1 Upgrade Procedures,
or from 8.0 to 8.1 Upgrade Procedures
—All Other Drivers

1. Copy and rename the existing configuration file for your IVR Driver.
2. Customize the IVR Driver configuration file using the instructions provided in the relevant driver's *System Administrator's Guide*.
3. Install and configure IVR Driver using the instructions provided in the relevant driver's *System Administrator's Guide.*

Notes:
- Envox Driver and WVR for Windows Driver are not released in 8.0.
- Only IVR Driver for WVR for AIX and IVR Driver for MPS are released in 8.1.

IVR Driver 7.1, 7.2, 7.5, 8.0, or 8.1 to 7.0 Rollback Instructions,
or from 7.2, 7.5, 8.0, or 8.1 to 7.1 Rollback Instructions,
or from 7.5, 8.0, or 8.1 to 7.2 Rollback Instructions,
or from 8.0 or 8.1 to 7.5 Rollback Instructions
or from 8.1 to 8.0 Rollback Instructions
—All Other Drivers

To return to your 7.0, 7.1, 7.2, 7.5, or 8.0 Genesys installation:

1. Restore the renamed IVR Driver 7.0, 7.1, 7.2, 7.5, or 8.0 configuration file to the correct file name.
2. Uninstall the newer IVR Driver.
3. Reinstall the older IVR Driver.

Notes:
- Envox Driver and WVR for Windows Driver are not released in 8.0.
- Only IVR Driver for WVR for AIX and IVR Driver for MPS are released in 8.1.

Upgrading IVR Driver from 6.5 to 7.x

Because of limitations on the UnixWare platform, the IVR Drivers for Aspect CSS on UnixWare and CONVERSANT do not support the new functions in IVR Driver 7.0, 7.1, 7.2, or 7.5. Therefore, these two drivers have different upgrade procedures than the rest of the release 7.x IVR Drivers.

IVR Driver 6.5 to 7.x Upgrade Procedures —Aspect (UnixWare Only) and CONVERSANT

None required.

IVR Driver 7.x to 6.5 Rollback Instructions —Aspect CSS on UnixWare and CONVERSANT

If returning to your 6.5 Genesys installation:

- Uninstall IVR Driver 7.x.
- Reinstall IVR Driver 6.5.

IVR Driver 6.5 to 7.x Upgrade Procedures —All Other Drivers

1. Copy and rename the existing configuration file for your IVR Driver 6.5. Customize the IVR Driver 7.x configuration file using the instructions provided in the *System Administrator's Guide* for your IVR Driver 7.x.
2. Since the `IVR_Driver` application is new for release 7.x and required, you must create a new `IVR_Driver` application. You can use the Genesys Wizard Manager to create an `IVR_Driver` application, or you can use the IVR Interface Option Wizard in configure mode in Configuration Manager to upgrade your existing IVR objects to release 7.x. Creating the `IVR_Driver` application is part of the wizard upgrade process. For more information on how to use these wizards, see the *IVR Interface Option 7.x IVR Server System Administrator's Guide.*

IVR Driver 7.x to 6.5 Rollback Instructions —All Other Drivers

If returning to your 6.5 Genesys installation:

1. Restore the renamed IVR Driver 6.5 configuration file to the correct file name.
2. Delete any new connections to `IVR_Driver` applications you have configured on the `Connections` tab of the `TServer_IVR` application in Configuration Manager.
3. Delete the `IVR_Driver` application and any `IVR` or IVR port objects that were created for this installation.

> **Note:** If your 6.5 configuration relies on any of these connections, do not delete them.

4. Uninstall IVR Driver 7.x.
5. Reinstall IVR Driver 6.5.

Chapter

31 Migration from Network T-Server for XML-Based GenSpec to IVR Server

This chapter describes how to migrate Network T-Server 6.5 for XML-Based GenSpec to IVR Server 7.0, 7.1, 7.2, 7.5, or 8.0. Information in this chapter is divided among the following topics:

Note: Network T-Server 6.5 for XML-Based GenSpec is also called NTS GenSpec in this chapter.

Migration Overview

To migrate from NTS GenSpec to IVR Server 7.0, 7.1, 7.2, 7.5, or 8.0, follow these general steps:

- Verify that you are using a supported release of the required products listed in Table 113.
- Install IVR Server 7.0, 7.1, 7.2, 7.5, or 8.0. See the relevant *IVR Interface Option IVR Server System Administrator's Guide* for information on how to install and configure IVR Server.
- In Configuration Manager, make the configuration option changes described in "Configuration Changes" on page 671.

- Make the XML protocol changes described in "Message Changes" on page 674.

General Information

Component Compatibility

The Genesys 7.0, 7.1, 7.2, 7.5, or 8.0. IVR Interface Option Server and Driver connect to and communicate with the Genesys environment, which supports telephony functions, tracks call flow, and manipulates call data.

Before you can configure IVR Interface Option 7.0, 7.1, 7.2, 7.5, or 8.0, a supported level of each of the Genesys products shown in Table 113 must be installed and running.

Table 113: Required Products and Supported Releases

Required Product	Supported Release
Genesys Framework	• 6.1 • 6.5 • 7.0 • 7.1 • 7.2 • 7.5 • 8.0
Premise T-Server	• 6.1 • 6.5 • 7.0 • 7.1 • 7.2 • 7.5 • 8.0

If you currently use an unsupported release of Genesys Framework or T-Server, you must upgrade to a supported release before you install the IVR Server.

Note: Genesys Framework and Genesys T-Server can be installed on the same computer on which the IVR Server is installed, or a different one.

Configuration Changes

Table 114 shows the configuration option differences between the Network T-Server 6.5 for XML-Based GenSpec application and the IVR Server 7 application.

Table 114: NTS for XML-Based GenSpec and IVR Server Differences

NTS GenSpec Option Name	Type of Change	Details
GenSpec Section		
MaxCallLifetime	Delete	Option `Call Timeout` in the `Timers` section is used in place of `MaxCallLifetime`.
IRTimeout	Delete	Option `Router Timeout` in the `Timers` section is used in place of `IRTimeout`.
gli-keep-alive-interval None		This option and its values remain the same in IVR Server.
gli-keep-alive-tries	None	This option and its values remain the same in IVR Server.
gli-reconnect-delay	None	This option and its values remain the same in IVR Server.
gli-link-proving-delay	None	This option and its values remain the same in IVR Server.
gli_server		
gli-server-mode	None	This option and its values remain the same in IVR Server.
gli-n-servers	None	This option and its values remain the same in IVR Server.
gli_server_group_<*n*>		
gli-circuit-failover	None	This option and its values remain the same in IVR Server.
gli-server-address	None	This option and its values remain the same in IVR Server.
gli-client-list	None	This option and its values remain the same in IVR Server.

Table 114: NTS for XML-Based GenSpec and IVR Server Differences (Continued)

NTS GenSpec Option Name	Type of Change	Details
pgf		
ptc-file	Change value	Valid value is any valid relative or absolute path to the `I-Server.smx` file.
CallIdSap		
output-network-call-id-key	Delete	This option does not exist in IVR Server.
input-network-call-id-key	Change value	Valid Value: `XML.Message.GctiMsg.CallId.Val`.
license		
license-file	None	The name of a valid license file is required for T-Server 7 *.x* and IVR Server 7.
num-of-licenses	None	The starting number of licenses to be checked out for this IVR Server 7.
num-sdn-licenses	Change in usage for IVR Server	The number of seat DN licenses to be checked out for T-Server and for IVR Server when it is configured for `IVR Network T-Server` mode. Do not use this option for IVR Server unless you are using `IVR Network T-Server` mode.
IServer		
called-num-subset	New	Determines the number of rightmost digits of `callNum` that are to be used as `AttributeThisDN` in T-Library messages. Default value is `0`. Valid value is any positive integer.
dtd-file	New	Specifies the name of the `.dtd` file to be included in XML messages sent by IVR Server.
IServerGLMSap		
checkout-interval	New	The interval at which IVR Server attempts to request license updates from FlexLM for the maximum call usage during that interval.
operation-mode	New	This option must be set to `IVR` or `NTS` for IVR Server 7 to run.

IVR XML Implementations

Table 115 lists the kinds of implementations that can use the IVR XML protocol rather than the GenSpec XML protocol.

Table 115: Implementations Using GenSpec XML and IVR XML

Protocol	Implementations Used
GenSpec XML	• SCP, Service Node, Network, Parking IVR
IVR XML	• SCP, Service Node, Network, Parking IVR • IVR-In-Front • IVR-Behind the PABX

Message Specification Migration

This section provides information on migrating from the GenSpec XML 2.8 protocol to the IVR XML 1.05 protocol. It describes the minimum set of IVR XML messages and flows required to reach iso-functionality with GenSpec XML.

Table 116 compares the message specifications for GenSpec XML and IVR XML and shows the required changes for protocol migration at the Transport and Communication layers.

Table 116: Transport and Communication Layer Modifications

Layer	GenSpec XML	IVR XML	Status
Communication Layer	TCP	TCP	No Change
Message	GLI (header) + XML Msg (Data)	GLI (Header) + XML Msg (Data)	No Change

Table 116: Transport and Communication Layer Modifications (Continued)

Layer	GenSpec XML	IVR XML	Status
XML Msg	GenSpec XML 2.8 .... NewCall RouteRequest RouteResponse Connected EndCall Failure RunApp AppStarted AppCompleted Cancel CancelCompleted	IVR XML LoginReq LoginResp flow on connection setup NewCall RouteRequest RouteResponse Connected EndCall Failure TreatCall TreatStatus TreatStatus Cancel CancelCompleted	Added: LoginRequest LoginResponse flow on connection setup Modified: The flows are identical, but some Msg names and Msg tags have changed. GenSpec XML is a subset of IVR XML.

Message Changes

The only required changes for the protocol migration from GenSpec XML to IVR XML are in the XML Messages. The following sections describe these changes. For a full understanding of the IVR XML protocol, refer to the relevant *Genesys Developer Program IVR SDK XML Developer's Guide.*

XML Header: Reference to DTD File

The reference to the DTD file in the XML Message header has changed. GenSpec XML used to refer to `GctiMsg.dtd`. IVR XML refers to `IServer.dtd`, which is provided and installed along with the `I-Server` application.

GenSpec XML

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<!DOCTYPE GctiMsg PUBLIC "GctiMsgId" "GctiMsg.dtd">
```

or

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<!DOCTYPE GctiMsg SYSTEM "GctiMsgId" "GctiMsg.dtd">
```

IVR XML

```
<?xml version='1.0' encoding='iso-8859-1'?><!DOCTYPE GctiMsg SYSTEM
'IServer.dtd'>
```

Encoding of Extensions and UserData

Encoding of Extensions and UserData has changed from GenSpec XML to IVR XML.

GenSpec XML

Extensions Tag:

```
<ExtnsEx>
```

UserData Tag:

```
<UDataEx>
```

Encoding of a Key Value Pair:

```
<NVPair>
   <NVName>Customer Number</NVName>
   <NVVal>162739</NVVal>
</NVPair>
```

Only Key Value Pairs of type `String` are supported.

Extensions example:

```
<ExtnsEx>
   <NVPair>
      <NVName>Customer Number</NVName>
      <NVVal>162739</NVVal>
   </NVPair>
</ExtnsEx>
```

UserData example:

```
<UDataEx>
   <NVPair>
      <NVName>Customer Number</NVName>
      <NVVal>162739</NVVal>
   </NVPair>
</UDataEx>
```

From GctiMsg.dtd:

```
<!ELEMENT UserData (NVPair)+>
<!ELEMENT Extensions (NVPair)+>
```

```
<!ELEMENT NVPair (NVName, NVVal)>
<!ELEMENT NVName (#PCDATA)>
<!ELEMENT NVVal (#PCDATA)>
```

IVR XML

Extensions Tag:

```
<ExtnsEx>
```

UserData Tag:

```
<UDataEx>
```

Encoding of a Key Value Pair:

```
<Node Name='Customer Number' Type='Str' Val='162739' />
```

Key Value Pairs of types `String`, `Integer`, and `Binary` are supported. Possible Node Types are `Str`, `Int`, and `Bin`.

Extensions example:

```
<ExtnsEx>
   <Node Name='Customer Number' Type='Str' Val='162739' />
</ExtnsEx>
```

UserData example:

```
<UDataEx>
   <Node Name='Customer Number' Type='Str' Val='162739' />
</UDataEx>
```

From IServer.dtd:

```
<!ELEMENT List (Node | List)+>
<!ATTLIST List Name CDATA #REQUIRED>
<!ELEMENT Node EMPTY>
<!ATTLIST Node Name CDATA #REQUIRED
   Type (Int | Str | Bin) #REQUIRED
   Val CDATA #REQUIRED>
<!ELEMENT UDataEx (Node | List)+>
<!ELEMENT ExtnsEx (Node | List)+>
```

Login Flow on Connection Setup

After establishing a connection to the IVR Server, the IVR needs to initiate a session and authenticate the user access to the IVR Server.

This is done by sending a Login Request (`LoginReq`) to the IVR Server. This message contains two attributes:

- `Version`, which identifies the version of the protocol (`2.0` for IVR XML)
- `ClientName`, which corresponds to the name given to the IVR application object in Configuration Manager.

IVR Server will inform the IVR if the login was successful or not, through a Login Response (`LoginResp`).

This message contains at least two attributes:

- `IServerVer`, which identifies the version of the IVR Server
- `Result: Success | InvalidProtocolVer`

Call Routing Messages

NewCall Message

Apart from the encoding of Extensions and UserData, the shape of the `NewCall` message has not changed. GenSpec XML and IVR XML are still using the same attributes. The only difference is in the `Version` attribute, which is now a required parameter in IVR XML:

GenSpec XML

```
Version="1.0"
```

IVR XML

```
Version = "2.0"
```

RouteRequest Message

Apart from the encoding of Extensions and UserData, the shape of the `RouteRequest` message has not changed for IVR Network T-Server implementations. In IVR XML, the `RouteRequest` message has a new attribute `RouteDN`, which is required in IVR-In-Front and IVR-Behind-Switch implementations. This attribute contains the value of the DN where a strategy is loaded (value of a Routing Point configured on the Switch).

From IServer.dtd (IVR XML):

```
<!ELEMENT RouteRequest (CED?, ((UserData?, Extensions?)|(UDataEx?,
ExtnsEx?)))>
<!ATTLIST RouteRequest RouteDN CDATA #IMPLIED>
<!ELEMENT CED (#PCDATA)>
```

RouteResponse Message

Apart from the encoding of `Extensions`, the shape of the `RouteResponse` message has not changed. GenSpec XML and IVR XML are still using the same attributes.

Connected Message

Apart from the encoding of Extensions, the shape of the `Connected` message has not changed. GenSpec XML and IVR XML are still using the same attributes.

EndCall Message

Apart from the encoding of Extensions and UserData, the shape of the `EndCall` message has not changed. GenSpec XML and IVR XML are still using the same attributes.

The only change is at the Call Model level. With GenSpec XML and GenSpec XML T-Server, it was possible to trigger `EndCall(EndCause = Resources)`, generating `RequestRouteCall (RouteTypeReject)` at Universal Routing Server level. With IVR XML and IVR Server, `RequestRouteCall(RouteTypeReject)` triggers `EndCall(EndCause = Default)` or `EndCall(EndCause = Normal)` if `AttributeOtherDN` is not empty.

Failure Message

Apart from the encoding of Extensions, the shape of the `Failure` message has not changed. GenSpec XML and IVR XML are still using the same attributes.

In GenSpec XML, the `Failure` message was used to report routing and treatment failures:

- `FailureCause = Busy | NoAnswer | ConnectFailed` for routing failures
- `FailureCause = RunAppFailed` for treatment failures.

In IVR XML, a new message has been introduced to specifically report treatment failures — `TreatStatus(Status = NotStarted)`. Routing failures are still reported through the `Failure` message, using `FailureCause = Busy | NoAnswer | ConnectFailed`. Therefore, `Failure(FailureCause = RunAppFailed)` is not supported anymore by IVR XML and IVR Server.

Treatment Messages

Between GenSpec XML and IVR XML, most of the treatment messages have changed. These changes apply to Message names or Message attributes. The role of each message and the call flows remain unchanged.

RequestID attribute

In GenSpec XML, treatments used to be identified by a Request ID within each call context. This behavior does not apply to IVR XML. The `RequestID` attribute has been removed from all treatment messages.

Request for treatment

GenSpec XML only supported one type of Genesys treatment: `Play Application`. IVR XML has been enhanced to support all Genesys treatments.

In GenSpec XML, a request for treatment was triggered at the IVR level through the `RunApp` message. This message has been removed from IVR XML and has been replaced by a `TreatCall` message.

GenSpec XML

Exchange of parameters with the IVR was possible through the `AppName` attribute (mapped with `Treatment Play Application - APP_ID`) and the Extensions (mapped with `Genesys AttributeExtensions`).

Message Name: `RunApp`

```
<!ELEMENT RunApp (RequestId, AppName, Extensions?)>
<!ELEMENT RequestId (#PCDATA)>
<!ELEMENT AppName (#PCDATA)>
```

IVR XML

Exchange of parameters with the IVR is now possible through the `Parameters` attribute (mapped with `Genesys AttributeTreatmentParms`) and the Extensions (mapped with `Genesys AttributeExtensions`).

The `TreatCall` message also includes a `Type` attribute, which describes the kind of Genesys treatment and is requested from the strategy.

If a `Treatment Play Application` is requested from the strategy (required with GenSpec XML), then the `Type` attribute will be set to `PlayApplication`.

`RequestID` attribute is no longer present in the request for treatment.

Message Name: `TreatCall`

```
<!ELEMENT TreatCall (Parameters?, ExtnsEx?)>
<!ATTLIST TreatCall Type (PlayAnnounce |
   PlayAnnounceAndDigits |
   Music | RAN | Busy |
   CollectDigits| CancelCall|
   SetDefaultRoute|
   PlayApplication | IVR | RingBack |
   Silence | VerifyDigits | RecordAnnounce |
   DeleteAnnounce | TextToSpeech | FastBusy |
   TextToSpeechAndDigits) #REQUIRED>
<!ELEMENT Parameters (Node | List)+>
```

Recommended:

If the IVR only supports `Type = PlayApplication`, it is strongly recommended to have the IVR send a `TreatStatus(Status = NotStarted)` message if another treatment `Type` is received or requested.

Treatment Started notification

After receiving a request for treatment and starting its execution, the IVR needs to inform the Genesys applications that the treatment has successfully started.

In GenSpec XML, this notification was sent through the `AppStarted` message. This message has been removed from IVR XML and has been replaced by a `TreatStatus(Status = Started)` message.

GenSpec XML

The `AppStarted` message only contained a `RequestID` attribute, and its value had to map the one sent in the previous `RunApp` message.

Message Name: `AppStarted`

```
<!ELEMENT AppStarted (RequestId)>
```

IVR XML

The `TreatStatus` message has several purposes:

- Report that the treatment has successfully started.
- Report that the treatment could not be applied.
- Report that the treatment has been completed.

In order to report the fact that the treatment could be applied and has started successfully, the `Status` attribute must be set to `Started`.

The `TreatStatus` message also includes Extensions and UserData attributes. But when the `Status` attribute is set to `Started`, the IVR Server does not take these parameters into account. Extensions and UserData only apply when `Status` is set to `Completed`.

`RequestID` attribute is no longer present in the `Treatment Started` notification.

Message Name: `TreatStatus`

Required Attribute: `Status = Started`

```
<!ELEMENT TreatStatus (UDataEx?, ExtnsEx?)>
<!ATTLIST TreatStatus Status (Started | NotStarted | Completed)
#REQUIRED
CED CDATA #IMPLIED>
```

Treatment Failure notification

After receiving a request for treatment, if the IVR is not able to apply it due to a lack of resources or an unsupported treatment type, the IVR needs to inform the Genesys applications that the treatment could not be started and applied.

In GenSpec XML, this notification was sent through the `Failure` message, setting the `FailureCause` to `RunAppFailed`. This message has been removed from IVR XML and has been replaced by a `TreatStatus(Status = NotStarted)` message.

GenSpec XML

In GenSpec XML, the `Failure` message was used to report routing and treatment failures:

- `FailureCause = Busy | NoAnswer | ConnectFailed` for routing failures.
- `FailureCause = RunAppFailed` for treatment failures.

When a treatment could not be applied on the IVR, this was reported back to the Genesys applications through a `Failure(FailureCause = RunAppFailed)` message.

IVR XML

The `TreatStatus` message has several purposes:

- Report that the treatment has successfully started.
- Report that the treatment could not be applied.
- Report that the treatment has been completed.

In order to report the fact that the treatment could not be applied, the `Status` attribute must be set to `NotStarted`.

The `TreatStatus` message also includes Extensions and UserData attributes. But when the `Status` attribute is set to `NotStarted`, the IVR Server does not take these parameters into account. Extensions and UserData only apply when `Status` is set to `Completed`.

`RequestID` attribute is no longer present in the Treatment Failure notification.

Message Name: `TreatStatus`

Required Attribute: `Status = NotStarted`

```
<!ELEMENT TreatStatus (UDataEx?, ExtnsEx?)>
<!ATTLIST TreatStatus Status (Started | NotStarted | Completed)
#REQUIRED
CED CDATA #IMPLIED>
```

Treatment Completion notification

After applying a treatment and eventually collecting some data, the IVR needs to inform the Genesys applications that the treatment has successfully completed.

In GenSpec XML, this notification was sent through the `AppCompleted` message. This message has been removed from IVR XML and has been replaced by a `TreatStatus(Status = Completed)` message.

GenSpec XML

The `AppCompleted` message contained a `RequestID` attribute, and its value had to map the one sent in the previous `RunApp` message.

If provided, the value of `CED` attribute was mapped with `AttributeCollectedDigits` in the `EvenTreatmentEnd` message.

Other data collected on the IVR could be sent to the Genesys applications through the Extensions or UserData attributes.

Message Name: `AppCompleted`

```
<!ELEMENT AppCompleted (RequestId, CED?, UserData?, Extensions?)>
<!ELEMENT CED (#PCDATA)>
```

IVR XML

The `TreatStatus` message has several purposes:

- Report that the treatment has successfully started.
- Report that the treatment could not be applied.
- Report that the treatment has been completed.

In order to report the fact that the treatment has completed successfully, the `Status` attribute must be set to `Completed`.

If provided, the value of the `CED` attribute is mapped with `AttributeCollectedDigits` in the `EvenTreatmentEnd` message.

The `TreatStatus` message also includes Extensions (`ExtnsEx`) and UserData (`UDataEx`) attributes. When the `Status` attribute is set to `Completed`, the IVR Server takes these parameters into account, and presents them in `AttributeExtensions` and `AttributeUserData` of the `EventTreatmentEnd` message.

`RequestID` attribute is no longer present in the Treatment Completed notification.

Message Name: `TreatStatus`

Required Attribute: `Status = Completed`

```
<!ELEMENT TreatStatus (UDataEx?, ExtnsEx?)>
<!ATTLIST TreatStatus Status (Started | NotStarted | Completed)
#REQUIRED
CED CDATA #IMPLIED>
```

Request for Cancel

When a treatment is being applied on the IVR and a Routing Request is sent by Universal Routing Server to the T-Server (GenSpec XML T-Server or IVR Server), the T-Server first sends a `Cancel` message to the IVR.

The same message name is used with GenSpec XML and IVR XML.

GenSpec XML

The `Cancel` message only contained a `RequestID` attribute, and its value had to map the one sent in the previous `RunApp` message.

Message Name: `Cancel`

```
<!ELEMENT Cancel (RequestId)>
```

IVR XML

The `Cancel` message has no attribute.

`RequestID` attribute is no longer present in the request to cancel.

Message Name: `Cancel`

```
<!ELEMENT Cancel EMPTY>
```

Cancel Completion notification

When a treatment is being applied on the IVR and a Routing Request is sent by Universal Routing Server to the T-Server (GenSpec XML T-Server or IVR Server), the T-Server first sends a `Cancel` message to the IVR. Before the T-Server sends the `RouteResponse` message with the appropriate destination, the IVR has to notify the T-Server that the treatment was successfully completed. This could be done using a `AppCompleted/TreatStatus(Status = Completed)` message or using a `CancelCompleted` message.

In the case of a `CancelCompleted` notification, the same message name is used with GenSpec XML and IVR XML.

GenSpec XML

The `CancelCompleted` message only contained a `RequestID` attribute, and its value had to map the one sent in the previous `RunApp` message.

Message Name: `CancelCompleted`

```
<!ELEMENT CancelCompleted (RequestId)>
```

IVR XML

The `CancelCompleted` message has no attribute.

`RequestID` attribute is no longer present in the request to cancel.

Message Name: `CancelCompleted`

```
<!ELEMENT CancelCompleted EMPTY>
```

Treatment Play Application mapping

If a `Treatment Play Application` is requested from the strategy, the mapping between the Genesys attributes and the GenSpec XML/IVR XML attributes operates as presented below.

GenSpec XML

By default, the `APP_ID` attribute (in `AttributeTreatmentParms`) of the `Treatment Play Application` will be mapped with the `AppName` attribute of the `RunApp` message.

In the Genesys T-Library, `APP_ID` is encoded as an integer. Therefore, if digits or a string must be sent to the IVR in the `AppName` attribute, a workaround had been set in place at the GenSpec XML T-Server level.

If a parameter with a key equal to the value of the `APP_ID` parameter was present in the `AttributeTreatmentParms`, its value was used to fill the `AppName` attribute.

Example 1: T-Library request:

```
RequestApplyTreatment
   AttributeThisDN'2001'
   AttributeConnID009001017f2e0001
   AttributeTreatmentTypeTreatmentPlayApplication
   AttributeTreatmentParms[37] 00 02 01 00..
   'APP_ID'1
   'LANGUAGE''English'
   AttributeReferenceID3
```

GenSpec XML message:

```
RunApp(AppName = "1")
```

Example 2: T-Library request:

```
RequestApplyTreatment
   AttributeThisDN'2001'
   AttributeConnID009001017f2e0001
   AttributeTreatmentTypeTreatmentPlayApplication
   AttributeTreatmentParms[37] 00 02 01 00.
   'APP_ID'1
   'LANGUAGE''English'
   '1   ''Customer Number'
   AttributeReferenceID3
```

GenSpec XML message:

```
RunApp(AppName = "Customer Number")
```

IVR XML

This workaround does not apply to IVR XML and IVR Server. Indeed, all treatment parameters can be sent to the IVR. Therefore, the T-Library requests will result in the messages presented below.

Example 1: T-Library request:

```
RequestApplyTreatment
   AttributeThisDN'2001'
   AttributeConnID009001017f2e0001
   AttributeTreatmentTypeTreatmentPlayApplication
   AttributeTreatmentParms[37] 00 02 01 00..
   'APP_ID'1
   'LANGUAGE''English'
   AttributeReferenceID3
```

GenSpec XML message:

```
<TreatCall Type='PlayApplication'>
   <Parameters>
   <Node Name='APP_ID' Type='Int' Val='1'/>
   <Node Name='LANGUAGE' Type='Str' Val='English'/>
   </Parameters>
   </TreatCall>
```

Example 2: T-Library request:

```
RequestApplyTreatment
   AttributeThisDN'2001'
   AttributeConnID009001017f2e0001
   AttributeTreatmentTypeTreatmentPlayApplication
   AttributeTreatmentParms[37] 00 02 01 00..
   'APP_ID'1
   'LANGUAGE''English'
   '1   ''Customer Number'
   AttributeReferenceID3
```

GenSpec XML message:

```
<TreatCall Type='PlayApplication'>
   <Parameters>
      <Node Name='APP_ID' Type='Int' Val='1'/>
      <Node Name='LANGUAGE' Type='Str' Val='English'/>
      <Node Name='1' Type='Str' Val='Customer Number'/>
   </Parameters>
</TreatCall>
```

Genesys

Part

9 Call Concentrator Migration

The chapters in this section describe the migration process from release 6.1 to release 7.0 of Call Concentrator. They also discuss the other Genesys software that supports and enables Call Concentrator 7.0 functionality.

The information is divided into the following chapters:

- Chapter 32, "Introduction to Call Concentrator Migration," on page 689 discusses the preliminary migration procedures and the migration order for Call Concentrator.
- Chapter 33, "Changes in Call Concentrator 7.0," on page 693 presents information that you need to upgrade the configuration options of Call Concentrator from release 6.1 to 7.0. This section only discusses changes (additions, deletions, and modifications) in the product that need specifically to be addressed during the migration process.
- Chapter 34, "Call Concentrator Migration Procedures," on page 695 discusses the migration procedures for release 6.1 to 7.0.

Note: Call Concentrator did not have 6.0 or 6.5 releases.

Chapter

32 Introduction to Call Concentrator Migration

This chapter discusses the preliminary migration procedures and the migration order for Call Concentrator 7.0 and contains the following sections:

Preliminary Migration Procedures

Note: If you want to upgrade your operating system before migrating your Genesys product, contact Professional Services.

The migration process includes these preliminary procedures for Call Concentrator 7.0:

1. Review Chapter 1, "Migration Roadmap," on page 41 of this guide.
2. Examine the order in which the Genesys software required for Call Concentrator 7.0 should be upgraded. See "Migration Order 7.0" on page 690.
3. Examine the option changes for Call Concentrator in "Changes to Call Concentrator Configuration Options" on page 694.

Note: For complete information about new features and functionality in this release of Call Concentrator, see the *Call Concentrator 7 Getting Started Guide*. For a complete list of configuration options for Call Concentrator 7, see the *Call Concentrator 7 Deployment Guide*.

4. Review the licensing requirements for Call Concentrator 7.0. See Chapter 2, "Licensing Migration," on page 47.
5. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.
6. Review other issues pertaining to the migration of Call Concentrator to version 7.0. See "Additional Information about Migration" on page 692.

Reference Materials

- *Genesys Licensing Guide*
- *Call Concentrator 7 Getting Started Guide*
- *Call Concentrator 7 Deployment Guide*
- *Call Concentrator 7 Reference Manual*
- *Genesys Interoperability Guide*

Migration Order 7.0

This section is specific to the applications and components that enable or support Call Concentrator.

Multi-Site/Single-Site and Multi-Tenant Migration

It is possible to migrate all sites or all tenants simultaneously or to migrate separate sites independently. Because the migration from Call Concentrator 6.1 to 7.0 does not require any modification of the database structure, you can have instances of Call Concentrator 6.1 and 7.0 operating simultaneously.

Migration and Upgrade Order

Note: The steps below are an outline of the stages of migration. For detailed step-by-step migration instructions, see Chapter 34, "Call Concentrator Migration Procedures," on page 695.

To Update or Migrate Call Concentrator

Migrate or upgrade the Call Concentrator 7.0 application, the other enabling software, and relevant data for Call Concentrator in the following order:

1. Install the updated License Manager, which is required for all Genesys 7 products, and obtain a Call Concentrator 7 license file.

   See Chapter 2, "Licensing Migration," on page 47 in this guide and the *Genesys Licensing Guide*.

2. Migrate any Genesys products you are upgrading. Call Concentrator requires these Genesys products:
   - DB Server.
   - Configuration Server.
   - T-Server(s).
   - Load Distribution Server (optional).

   Note: Call Concentrator 7 is backward compatible with a Genesys 6.5 or 6.1 environment.

3. If necessary, update your contact center configuration (e.g., Place Groups, Agent Groups, DNs, and so on) using Configuration Manager.
4. Configure any upgraded or new T-Server(s), DBServer and Database Access Point(s) before proceeding to create and configure the Call Concentrator application.
5. Back up your Call Concentrator database.
6. Follow the normal installation and configuration procedures, as explained in the *Call Concentrator 7 Deployment Guide*.

Interoperability

The term *interoperable* means that different versions of Genesys solutions, components, or options can work together compatibly.

Interoperability of Genesys products can occur at two levels:

- **Interoperability at the suite-level** means combining different versions of solutions and options.

  Example: You can migrate to the Configuration Management Layer of Framework 7.0 while still using 6.5 components. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.
- **Interoperability at the solution-specific level** means combining different versions of the components of a particular solution.

Compatibility Among Components of Call Concentrator

Call Concentrator 7.0.includes only Call Concentrator itself. It has no other components.

Additional Information about Migration

For a high-level overview of migration issues, please see Chapter 1, "Migration Roadmap," on page 41 in this guide.

Chapter

33 Changes in Call Concentrator 7.0

This section provides information to upgrade the configuration options of Call Concentrator from release 6.1 to 7.0. This section discusses changes (additions, deletions, and modifications) to be made during the migration process. The product documentation for each release contains a comprehensive list of changes from release to release:

- *Reporting 6.1 Overview for Call Concentrator*
- *Call Concentrator 7 Getting Started Guide*

This chapter discusses the following topics:

Changes for 7.0

Call Concentrator 7 includes no new database features that affect migration.

Call Concentrator calculations of `WtTime`, `RoutTime`, and `RingTime` have been modified. These changes do not affect migration.

Note: For information about all the new features and functions in Call Concentrator 7.0, including a detailed explanation of the changes to `WtTime`, `RoutTime`, and `RingTime`, see Chapter 2, "Introducing Call Concentrator 7," in the *Call Concentrator 7 Getting Started Guide*.

Changes to Call Concentrator Configuration Options

Table 117 explains the changes to the Call Concentrator application options.

Table 117: Configuration Option Changes from 6.1 to 7.0

Option/Section Name	Type of Change	Change Occurred in Version #	Details
logfile Options Section	Section removed	6.1	Logging is handled through the Genesys common logging system. Use the Log options section to set logging parameters.
Configuration Options Section			
	AgentStatuses option added	6.1.300.01	
	DbMaxErrors BeforeShutdown option added	6.1.200.00	
	IgnoreRingingTime option added	6.1.200.00	
	use_original_connid option added	6.1.200.00	
	StatInterval option added	6.1.200.04	
	UseCfgDNType option added	6.1.300.08	
	IgnoreVRP option added	6.1.300.08	
	show-attached-data option added	7.0	

Chapter

34 Call Concentrator Migration Procedures

This chapter discusses the migration procedures for release 6.1 to 7.0 and contains this section:

Note: Call Concentrator had no 6.5 release.

Migration from 6.1 to 7.0

This chapter discusses the migration procedures for Call Concentrator and other Genesys software that enables and supports it.

Preliminary Migration Procedures

Complete these preliminary procedures before starting your migration of Call Concentrator:

1. Install the updated License Manager, available in the Call Concentrator installation package.

   Licensing is addressed in these documents:

   - *Genesys Licensing Guide*
   - *Chapter 2, "Licensing Migration," on page 47*

2. If desired, migrate Framework from 6.x to 7.0.

   See "Interoperability" on page 691.

3. Upgrade of other prerequisite Genesys components, such as T-Server(s), if desired.

Migration Procedures

Follow these migration procedures:

To Migrate Call Concentrator

1. Update your contact center configuration as needed.
2. Configure any new T-Server(s), DB Server, and Database Access Point(s) or make any necessary changes to your existing ones.
3. Back up your Call Concentrator database.
4. Follow the Call Concentrator configuration and installation procedure for your platform, as described in the *Call Concentrator 7 Deployment Guide*.

> **Note:** Consult Professional Services regarding migration of any and all customized Genesys products.

Rollback Procedures

To Rollback to Previous Version

If the upgrade of Call Concentrator fails, please proceed with the rollback procedure.

1. If you started Call Concentrator, stop it. For startup and shutdown methods, see Chapter 6, “Starting and Stopping,” in the *Call Concentrator 7 Deployment Guide*.
2. Follow the appropriate uninstall instructions for your platform in Chapter 7, “Uninstalling Call Concentrator,” in the *Call Concentrator 7 Deployment Guide.*

Part

10 Universal Routing Migration

Note: The term "Universal Routing" encompasses both Enterprise Routing and Network Routing.

The chapters in this section describe the migration process to Universal Routing 8.0 or 8.1 from release 6.5 or 7.x, and to Universal Routing 7.6 from releases 6.5 through 7.5. They also discuss component changes and the other Genesys software that supports and enables Universal Routing functionality.

The information is divided into the following chapters:

- Chapter 35, "Introduction to Universal Routing Migration," on page 699 discusses the preliminary migration procedures and the migration order for Universal Routing.
- Chapter 36, "Changes in Universal Routing Through 8.1," on page 741 provides information about changes in components, configuration options, functions, objects, and statistics used in Universal Routing from release 6.5 to 8.1.
- Chapter 37, "Universal Routing Migration Procedures," on page 771 explains the migration procedures for releases 6.x to 8.1.

Note: 5.1/6.0/6.1 Customers: There is no direct migration from 5.x, 6.0, or 6.1 to 7.6, 8.0, or 8.1. Instead, you must first migrate to 6.5 as described in the *Genesys 6.5 Migration Guide*, which can be found on the 6.5 Documentation Library DVD or the Customer Care website. Once the migration to 6.5 is complete, you can migrate directly to Universal Routing 7.6, 8.0, or 8.1.

For detailed descriptions of the new features and capabilities of each Universal Routing release, see the following documents on the Genesys Documentation website at docs.genesys.com:

- *Universal Routing Deployment Guide* (see the "New Features" section in the "Overview" chapter) for the release to which you are migrating.
- *Universal Routing Reference Manual* for the release to which you are migrating, for more detailed descriptions of the new objects, options, functions, and statistics mentioned in the New Features section of the *Deployment Guide*.
- *Universal Routing 8.0 Routing Application Configuration Guide,* for information on skills-based routing, business priority routing, cost-based routing, and share agent by service level agreement routing. This document was previously named *Routing Solutions Guide.*
- *Genesys 8.0 Proactive Routing Solution Guide*, for information on a solution that results from the integration of Universal Routing, Outbound Contact, Multimedia, and Agent Desktop**.**
- *Universal Routing Interaction Routing Designer Help* for the release to which you are migrating.
- *Universal Routing Server Release Note* for the release to which you are migrating.
- *Interaction Routing Designer Release Note* for the release to which you are migrating.
- *Custom Server Release Note* for the release to which you are migrating.
- In addition, the new features and expanded capabilities are summarized in Chapter 37, "Universal Routing Migration Procedures," on page 771 of this guide.

Chapter

35 Introduction to Universal Routing Migration

This chapter discusses the preliminary migration procedures and component compatibility for Universal Routing 8.1, 8.0, and 7.6. It contains the following sections:

Preliminary Migration Procedures

Follow these procedures before migrating Universal Routing. The procedure to migrate to Universal Routing 8.0 or 8.1 is the same as the procedure to migrate to Universal Routing 7.6. Therefore the migration procedures for both releases are combined in these chapters.

Database/Operating System Upgrade

Before migration, you may need to upgrade the operating system and/or database used by Universal Routing. Determine whether you need to upgrade by checking the *Genesys Supported Operating Environment Reference Guide*.

Note: If you need to upgrade your operating system or database, you must do this before migrating your Genesys product.

If you need to upgrade your operating system and/or database, consult your vendor documentation.

Preliminary Genesys Migration Procedures

The Genesys migration process includes these preliminary procedures for Universal Routing:

1. Review Chapter 1, "Migration Roadmap", of this guide.
2. Examine the order in which the Genesys software required for Universal Routing should be upgraded. See "Order of Migration for Universal Routing" on page 701.
3. Examine the component changes in "Component Changes for Universal Routing" on page 742.

   You might also want to review:
   - "Configuration Option Changes" on page 743.
   - "Changes to Functions" on page 753.
   - "Changes to Strategy-Building Objects" on page 762
   - "Changes to Predefined Statistics" on page 766

   Note: Please note that these tables only discuss changes that directly affect migration of this product. For more high-level information about what's new in Universal Routing, see the "New Features" section in the "Overview" chapter of the *Universal Routing Deployment Guide* for the release to which you are migrating. For a complete list of documentation relevant to the migration of this product, see "Reference Materials" on page 701.

4. Review the licensing requirements for Universal Routing. See Chapter 35, "Introduction to Universal Routing Migration," on page 699. Key points are summarized below:
   - You must set up licensing before starting to install and configure Universal Routing. Universal Routing 8.0 and 8.1 work with FLEXlm 9.5 and 11.7. Universal Routing 7.6 supports FLEXlm 8.3 and 9.5. However, if your operating system is Red Hat Enterprise Linux AS v4.0 on the 32-bit Intel platform, you must install FLEXlm 9.5 (there is no FLEXlm 8.3 for Linux).
   - Starting with Management Framework 8.0.2, Universal Routing 8.0 and 8.1 running on Windows operating systems work with FLEXlm 9.5 and 11.7 or later versions. However, users of Windows 2008 must use FLEXlm License Manager version 11.7 or later for platform compatibility. If you are using lmgrd 11.7 or later, lmutil 11.7 or later is required. Genesys provides FLEXlm 11.7, or you can download FLEXlm 11.8 and later versions from Flexera's web site.
   - For Release 7.6, Genesys implements its Interim Licensing Solution (ILS). The term "Interim" means prior to Genesys Release 8.0. The intent of the ILS is to simplify and streamline the current licensing system. The main element of the ILS is a Default license control file

based solely on the number of Enterprise Routing and Network Routing seats–whether single-site, multi-site, or as part of the CIM platform.

- Genesys will not proactively retrieve and replace all existing license files in production. First-time purchases and upgrade requests will be fulfilled using the Default license file (unless an exception has been requested).
- URS reports a license violation when it detects that the number of purchased seats exceeds the number allowed by the license, but doesn't stop normal operation. Instead, it will not route to the license-violated seats.
- For more information on the ILS, consult the *Genesys Licensing Guide* document available on the Genesys Documentation website and the Documentation Library DVD.

5. Check the interoperability of the Universal Routing components so that your components remain compatible during the migration process. See "Interoperability Among Universal Routing Components" on page 703.
6. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Level Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.
7. Review other issues pertaining to the migration of Universal Routing. See Chapter 36.

Reference Materials

- *Genesys Licensing Guide*
- *Universal Routing Deployment Guide* for the release to which you are migrating (contains both getting-started and deployment information).
- *Universal Routing Reference Manual* for the release to which you are migrating.
- *Universal Routing 7.6 Routing Application Configuration Guide*, or *Universal Routing 8.0 Routing Application Configuration Guide*
- *Universal Routing 7.6 (or later) Cost-Based Routing Configuration Guide*
- *Genesys 7.6 (or later) Proactive Routing Solution Guide*
- *Genesys Interoperability Guide* for the release to which you are migrating.

Order of Migration for Universal Routing

The "Order of Migration" section in this chapter applies to migrating to Universal Routing 8.0 and 8.1 as well as migrating to Universal Routing 7.6.

Single Site, Multi-Site and Multi-Tenant Migration

You can migrate all sites or all tenants simultaneously or migrate separate sites independently. If you will have different versions at different sites at any point during your migration, review the component interoperability restrictions discussed on page 703.

Partial Upgrades

The basic process for multi-site customers involves stopping routing activity at a site and re-routing all interactions to another site during migration.

To minimize the amount of time taken by the re-routing process, you can do a partial migration and migrate only certain components during the re-route period.

Note: Universal Routing Server (URS) and Interaction Routing Designer (IRD) must be from the same release in order to work together. For example, you cannot run IRD 7.5 with URS 7.2; you cannot run IRD 7.5 with URS 7.6.

Migration and Upgrade Order

This section provides an overview of the migration order and procedures to migrate to Universal Routing 8.0 and 8.1 from 7.x or to Universal Routing 7.6 from 7.2. Detailed instructions are available in Chapter 37.

Migrate the components of Universal Routing, any other required software, and your data in the following order:

1. Install or upgrade Licensing Server. For details and the versions of Licence Manager supported, see Chapter 2 of this guide and *Genesys Licensing Guide.*
2. Migrate Management Framework, which is the foundation for all Genesys products, solutions, and options.
   - For information about migrating the layers and components of Management Framework, see “Framework Migration” in this guide.
3. Use the instructions found in Chapter 37 to migrate Universal Routing components.

   When upgrading components, determine whether each component you upgrade to the new version is backward-compatible with the existing components. See “Interoperability Among Universal Routing Components” on page 703.
4. Perform this step only if you are currently running 5.x strategies. You must recreate your 5.x strategies in IRD 7.6. IRD 7.2 and later does not recognize a 5.x strategy so you cannot load it on a routing point.

One way to handle this situation is to do as follows:

- Use the Migration Procedure information on chapter to install the new version of URS and IRD in an environment separate from your Production environment.
- Export the URS options from your Production environment to the this separate environment.
- Document the objects, logic, and flow of each 5.x strategy on paper.
- Recreate each strategy in the new version of IRD (8.1, 8.0 or 7.6).
- After the Universal Routing components are migrated, export the recreated strategies to your Production environment.

Interoperability Among Universal Routing Components

The term *interoperable* refers to whether it is possible for different versions of Genesys solutions, components, or options to work together compatibly during the migration process.

- *Interoperability at the suite-level* means combining various versions of Genesys products during the migration process.

  For example, you can install and use URS and IRD 7.6 with Genesys Framework 7.1. See the *Genesys Interoperability Guide* for the release to which you are migrating for information on the compatibility of Genesys products with various Configuration Level Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.

- *Interoperability at the product level* means combining different versions of the components of a particular product—such as Universal Routing—while migrating them sequentially.

  Interoperability of Universal Routing components can occur with these restrictions: In order to obtain the fully functionality of a given release of Universal Routing, the same versions of URS and IRD must be installed and run together. In other words:

  URS and IRD 8.1 must be installed and run together.

  URS and IRD 8.0 must be installed and run together.

  URS and IRD 7.6 must be installed and run together.

  URS and IRD 7.5 must be installed and run together.

  URS and IRD 7.2 must be installed and run together.

Note: For example, you cannot migrate to URS 8.1 and use a 7.6 version IRD or vice-versa if you want the full functionality of Universal Routing 8.1.

Other examples:

Assume you are satisfied with the functionality of your current URS, but want to upgrade to the latest version of IRD. If you upgrade IRD, then you must upgrade URS. If you do not do this, the older version of URS will not know how to execute any new IRD objects, for example.

In the reverse case, assume you wish to upgrade URS, but are satisfied with the older version of IRD. In this case, it is possible not to upgrade IRD. However, as a result, not all functionality of the upgraded URS will be available to you.

Note that URS 7.6 can open/execute strategies created with versions of IRD previous to 7.6 as described in Table 130 on page 739.

The following section provides detailed interoperability information.

Universal Routing Component Compatibility

A Genesys 8.1 routing solution is designed to work with the components in Table 118:

Table 118: 8.1 Routing Solution Components

Component	*Version*	*Notes*
Universal Routing Server	8.1	When the agent reservation feature is used in an LDS/multi-URS environment, Genesys recommends that all URSs come from the same family (all 7.6 or all 8.1, for example), and that you configure them all with the same set of options. Note: You can gracefully eliminate one URS instance at a time from traffic by setting its load percentage share to zero. New URSs can be added on the fly. However, when different families of URSs work together, agent reservation can sometimes be disrupted. Some URSs may get more successful reservations than others. While this will most likely not happen, it is possible.
Interaction Routing Designer	8.1	

Table 118: 8.1 Routing Solution Components (Continued)

Component	Version	Notes
Orchestration Server	8.1	Optional component for running SCXML-based strategies. See the *Orchestration Server 8.1 Deployment Guide* for more information.
Custom Server	7.0. and later	Optional component.
Load Distribution Server	7.0 and later	Optional component. See Universal Routing Server note.
Universal Callback Server	7.0 and later	Optional component.

A Genesys 8.0 routing solution is designed to work with the components in Table 119:

Table 119: 8.0 Routing Solution Components

Component	Version	Notes
Universal Routing Server	8.0	When the agent reservation feature is used in an LDS/multi-URS environment, Genesys recommends that all URSs come from the same family (all 7.6 or all 8.0, for example), and that you configure them all with the same set of options. Note: You can gracefully eliminate one URS instance at a time from traffic by setting its load percentage share to zero. New URSs can be added on the fly. However, when different families of URSs work together, agent reservation can sometimes be disrupted. Some URSs may get more successful reservations than others. While this will most likely not happen, it is possible.
Interaction Routing Designer	8.0	

Table 119: 8.0 Routing Solution Components (Continued)

Component	Version	Notes
Orchestration Server	8.0	Optional component for running SCXML-based strategies. See the *Orchestration Server 8.0 Deployment Guide* for more information.
Custom Server	7.0. and later	Optional component.
Load Distribution Server	7.0 and later	Optional component. See Universal Routing Server note.
Universal Callback Server	7.0 and later	Optional component.

A Genesys 7.6 routing solution is designed to work with the components in Table 120:

Table 120: 7.6 Routing Solution Components

Component	Version	Notes
Universal Routing Server	7.6	When the agent reservation feature is used in an LDS/multi-URS environment, Genesys recommends that all URSs come from the same family (all 7.5 or all 7.6, for example), and that you configure them all with the same set of options. Note: You can gracefully eliminate one URS instance at a time from traffic by setting its load percentage share to zero. New URSs can be added on the fly. However, when different families of URSs work together, agent reservation can sometimes be disrupted. Some URSs may get more successful reservations than others. While this will most likely not happen, it is possible.
Interaction Routing Designer	7.6	

Table 120: 7.6 Routing Solution Components (Continued)

Component	Version	Notes
Custom Server	7.0. and later	Optional component.
Load Distribution Server	7.0 and later	Optional component. See Universal Routing Server note.
Universal Callback Server	7.0 and later	Optional component.

A Genesys 7.5 routing solution is designed to work with the components in Table 121:

Table 121: 7.5 Routing Solution Components

Component	Version	Notes
Universal Routing Server	7.5	When the agent reservation feature is used in an LDS/multi-URS environment, Genesys recommends that all URSs come from the same family (all 7.5 or all 7.6, for example), and that you configure them all with the same set of options. Note: You can gracefully eliminate one URS instance at a time from traffic by setting its load percentage share to zero. New URSs can be added on the fly. However, when different families of URSs work together, agent reservation can sometimes be disrupted. Some URSs may get more successful reservations than others. While this will most likely not happen, it is possible.
Interaction Routing Designer	7.5	
Custom Server	7.0. and later	Optional component.
Load Distribution Server	7.0 and later	Optional component. See Universal Routing Server note.
Universal Callback Server	7.0 and later	Optional component.

A Genesys 7.2 routing solution is designed to work with the components in Table 122:

Table 122: 7.2 Routing Solution Components

Component	*Version*	*Notes*
Universal Routing Server	7.2	When the agent reservation feature is used in an LDS/multi-URS environment, Genesys recommends that all URSs come from the same family (all 7.2 or all 7.5, for example), and that you configure them all with the same set of options. Note: You can gracefully eliminate one URS instance at a time from traffic by setting its load percentage share to zero. New URSs can be added on the fly. However, when different families of URSs work together, agent reservation can sometimes be disrupted. Some URSs may get more successful reservations than others. While this will most likely not happen, it is possible.
Interaction Routing Designer	7.2	
Custom Server	7.0. and later	Optional component.
Load Distribution Server	7.0 and later	Optional component. See Universal Routing Server note.
Universal Callback Server	7.0 and later	Optional component.

Note: URS/IRD 7.2 and later will work with Custom Server 6.0. However, this release of Custom Server is not Management Layer-compliant.

Availability of New Features and Capabilities

Each new Universal Routing release contains new features and enhanced capabilities, which are summarized below. These are fully described in the "New Features" section of the "Overview" chapter in the applicable *Universal Routing Deployment Guide*.

They are also described in the Universal Routing Server and Interaction Routing Designer Release Notes.

8.1 Feature and Component Matrix

Table 123 shows other Genesys software components (in addition to URS/IRD) that are required in order to use the new features and capabilities in Universal Routing 8.1, and which work in a pure voice environment or with Genesys eServices components.

Note: Also see changes to options in Table 133 on page 743, changes to functions in Table 134 on page 753, changes to strategy-building objects in Table 135 on page 763, and changes to predefined statistics in Table 136 on page 766.

Table 123: 8.1 Feature and Component Matrix

Feature	eServices 7.5, 7.6, or 8.0, 8.1 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
Universal Routing Server						
URS provides the possibility to measure and adjust (within some limits) its own performance.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	7.5 or later
URS provides metric information about interactions within a specific internal routing queue.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	7.5 or later
URS provides the possibility to connect to an alternative Stat Server.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	7.5 or later

Table 123: 8.1 Feature and Component Matrix (Continued)

Feature	eServices 7.5, 7.6, or 8.0, 8.1 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
URS provides direct communication between aprimary URS and backup URS, to synchronize their work.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
Web service object may now access not only SOAP web servers but also HTTP REST servers, as well.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	7.2 or later
URS dynamic busy treatment parameters may now be replaced upon sending treatment requests with some dynamically obtained data.	No	7.6 or later	7.6 or later	7.6 or later	7.6 or later	7.6 or later
Detailed information in URS may now be obtained about agent/place state (function TargetState).	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
Interaction Routing Designer						
UNICODE IRD	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	7.2 or later
IRD provides custom routing ability. Hardcoded routing procedures may now be overridden in the target selection and Interaction Route objects.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
IRD provides extended usage of variables in eService strategy objects (for screening rules, categories, etc).	No	N/A	N/A	N/A	N/A	N/A

8.0 Feature and Component Matrix

Table 124 shows what other Genesys software components (in addition to URS/IRD) are required to use the new features and capabilities in Universal

Routing 8.0, which can work in a pure voice environment or with Genesys eServices components.

Note: Also see changes to options in Table 133 on page 743, changes to functions in Table 134 on page 753, changes to strategy-building objects in Table 135 on page 763, and changes to predefined statistics in Table 136 on page 766.

Table 124: 8.0 Feature and Component Matrix

Feature	eServices 7.5, 7.6, or 8.0 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
Universal Routing Server						
URS provides functional modules catering to Orchestration Server requests based on SCXML applications. Orchestration Server (ORS) is a new component for Universal Routing. With ORS, Universal Routing can now execute routing strategies written in SCXML. You can create SCXML-based strategies using Genesys Composer or manually, by using Notepad or your favorite text editor. For more information, see the *Orchestration Server Deployment Guide*.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	7.5 or later
Universal Routing nowprovides, built in as part of the IP, a new Web (HTTP) interface in addition to HTTP bridge service. The new interface facilitates SOAP and HTTP(s) calls into Universal Routing Server (URS).	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
URS now enhances UUI data readability by providing functions to convert it into different data types.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	7.2 or later

Table 124: 8.0 Feature and Component Matrix (Continued)

Feature	eServices 7.5, 7.6, or 8.0 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
URS provides Transport Layer Security (TLS). For more information on this feature, see the *Universal Routing Reference Manual*.	8.0	7.6 or later	7.6 or later	7.6 or later	7.6 or later	7.6 or later
URS now provides a new function, `StrNextToIndex`, to help the `StrAsciiTok` function manage the indexing sequence when using two or more variables.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
URS now provides alarms and log messages when it discovers issues that occur during external routing of interactions. This alarm message is propagated to Message Server once across many calls.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
When URS applies a treatment on transfer completion, the treatment will be the same as the currently applied busy treatment for the consult call (if any).	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
All connections originating from URS can now be secured through firewalls with client-side port definition. You can define these ports when connecting other Genesys applications to URS.	For component support of client-side port security, see Table 126 on page 724.					
Interaction Routing Designer						
IRD provides the `CallUUID[]` function to attach the `TEvent` Attribute of the `CallUUID` as attached data.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	7.2 or later

Table 124: 8.0 Feature and Component Matrix (Continued)

Feature	eServices 7.5, 7.6, or 8.0 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
You can now use Division Arithmetic Operators within the `SetTargetThreshold` function expression and on the Threshold tab.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
IRD now supports installation of multiple versions of IRD 8.0 on the same machine. Note that you cannot have both IRD 8.0 and an earlier version of IRD on a single machine.	No	N/A	N/A	N/A	N/A	N/A
IRD now provides functionality to exit call treatment with different options based on caller entered digits	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
Custom Server						
You can secure the client-side port of the Custom Server connection to Configuration Server. For other servers, use the Application object (Connections list).	For component support of client-side port security, see Table 126.					

7.6 Feature and Component Matrix

Table 125 shows what other Genesys software components (in addition to URS/IRD) are required to use the new features and capabilities in Universal Routing 7.6, which can work in a pure voice environment or with Genesys eServices components.

Note: Also see changes to options in Table 133 on page 743, changes to functions in Table 134 on page 753, changes to strategy-building objects in Table 135 on page 763, and changes to predefined statistics in Table 136 on page 766.

Table 125: 7.6 Feature and Component Matrix

Feature	Multimed. 7.5 or 7.6 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
Universal Routing Server						
Universal Routing 7.6 supports instant messaging using SIP Server. If an agent can receive both voice and IM interactions based on agent capacity rules, Universal Routing supports the following capabilities: Routing voice call to agents behind a traditional PBX (TDM phone and SIP Instant Messaging client). Routing voice calls to agents with SIP voice-only phones. Routing voice calls to agents with SIP endpoints supporting both the voice and the instant message channels at the same time. A single agent can support several instant message interactions simultaneously based on agent capacity rules. For more information on a Genesys Instant Messaging solution, see the *Genesys 7.6 Instant Messaging Solution Guide*.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	SIP Server 7.6 or later

Table 125: 7.6 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
Enhanced prioritization mechanism used to select T-Servers for distributing virtual queue events. URS now takes into account the very first T-Server that the call was transferred from (if any). For more information, see the New Features section in the Overview Chapter of the *Universal Routing 7.6 Deployment Guide*.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	7.5 or later
Enhanced method for updating a call's Caller-Entered Digits (CED) attribute. If `AttributeCollectedDigits` in the event has a value, URS updates CED upon receiving any event from the following list: • `EventQueued`, `EventRouteRequest`, `EventRinging`, `EventEstablished`, `EventPartyChanged` • Upon receiving `EventDigitsCollected` • Upon receiving `EventTreatmentEnd` for the treatment currently being played.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	7.5 or later

Table 125: 7.6 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
When the option `hide_private_data` is set to `true`, in addition to its previous functionality: • URS will not print in its logs parameters for Web Service requests and also any result that a Web Service returns. • `http_bridge` will not print in its log parameters and results of Web Service requests. • `http_bridge` will not generate an xml-soap log.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	7.5 or later
IVR Server load balancing deployed in In-Front mode	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	7.5 or later
Option `report_reasons` enables you to add information to interactions regarding the reason for routing for reporting purposes (such as default routing performed by the switch).	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
Router Self-Awareness mode enables URSs deployed in a load sharing mode to communicate with each other regarding selected targets and target statistics. Options using and lds, set in Message Server, facilitate communications.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later

Table 125: 7.6 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
When load balancing calls across multiple sites, you can use load balancing statistics to more accurately account for the number of calls at each site by including calls that in are transition from the network to the contact center site. For more information, see Table 136 on page 766. Note: Some load balancing statistics take Router Self-Awareness into account but don't require it. Other load balancing statistics don't use Router Self-Awareness at all.	No	7.6	6.5 or later	6.5 or later	7.2 or later	6.5 or later
To support reporting on load balancing, and to allow for both real-time and historical reporting of calls in transition, you can set option `report_statistics` to instruct URS to attach additional reporting data to calls.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
You can implement a load balancing algorithm in your strategies using function StrTargets. It facilitates the creation of a comma-separated list of targets for use as input parameters to the utility subroutines described below.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
Utility subroutines accept a comma-separated list of targets and a corresponding "selecting" procedure and then returns the optimal target.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later

Table 125: 7.6 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
The `RStatCallsInTransition` statistic can be used in a strategy to adjust other statistics received from Stat Server. Returns the number of calls that URS believes are on the way to corresponding targets, but which have not yet arrived.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
The `ExtrouterError` function changes the default URS reaction upon failure to get a remote access number. If set to `false`, URS will continue the attempt to route the call based on the original number.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
The `CountSkillInGroup` function now uses the default Stat Server if the Stat Server parameter is missed in the function specification	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
The `ExcludeAgents` function now actually excludes the agent if the agent was selected as a target and then excluded from the list of valid targets using the `ExcludeAgents` function.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
The `StatExpectedWaitingTime` statistic in the formula for the `InVQWaitTime` function is replaced with `max(StatLoadBalance, 0).StatLoadBalance` more accurately counts time to wait.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
If T-Server distributes the `EventDiverted` message with state 22, URS updates `AttributeExtensions` of the `EventDiverted` message with a new key-value pair with key Reason and an integer value.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later

Table 125: 7.6 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
As a result of receiving `EventRouteUsed`, `EventReleased`, or `EventAbandoned`, URS will provide the `ReasonSystemName` attribute specified by Interaction Server. It can then be forwarded to the reporting engine to report on the reason why the call left the virtual queue.	7.6	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
You can secure the client-side port of the URS connection to Configuration Server during wizard installation. For other servers, use the Application object (Connections list).	For component support of client-side port security, see Table 126 on page 724.					
Interaction Routing Designer						
Function `FirstHomeLocation`, returns the value of the `FirstTransferHomeLocation` field in the T-Server event that started the strategy. The function `SetHomeLocation` allows you to specify the home location for the current call in a strategy. You can use these functions to implement the new prioritization mechanism to select a T-Server for Virtual Queue events distribution (see page 715.)	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	7.2 or later

Table 125: 7.6 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
The `View` object used in business processes has the following new features: • A new `Scheduling` tab lets you specify the scheduling conditions that Interaction Server should use, based upon the scheduled time contained in interactions. • A new `Database Hints` tab, especially applicable to an Oracle database, allows entry of special tags in SQL queries that cause queries to execute in a way that optimizes performance. • A new `Segmentation` tab can be used to submit an equal number of different interaction types (segments) and to limit the total number of interactions submitted to a strategy. • The `General` tab adds a `Check Interval` field where you can specify how often Interaction Server should check the queue associated with the view and, if necessary, adjust the number of interactions that can be submitted to the strategy.	Yes	7.2 or later	6.5 or later	6.5 or later	7.6 or later	6.5 or later
The `Workbin` object in IRD's `Interaction Design` window adds a `Queue` tab, which can be used for escalating interactions. The new tab allows you to associate the workbin with a private (invisible) queue or you can select an existing queue in the current business process.	Yes	7.2 or later	6.5 or later	6.5 or later	7.6 or later	6.5 or later

Table 125: 7.6 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
IRD's `Function` object contains several new Date and Time functions that you can use when setting the scheduled time in interactions: `GetUTC`, `UTCAdd`, `UTCFromString`, and `UTCToString`.	Yes	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
When two or more URS instances run in load sharing mode through Load Distribution Server, IRD synchronizes strategy loading so you do not have to load/unload the same strategy on every URS for each Routing Point in IRD's Monitoring view.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
IRD can lock a strategy or subroutine to warn others that it is in use.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
The IRD installation process enables you to configure one or more security banner messages, which can be configured to display every time users log into IRD or on a one-time basis.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
When business processes are imported, strategies containing objects that use Screening Rules and Standard Responses now successfully recompile.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
Move variable definitions used in one strategy to another strategy.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
Export Solution and Import Solution views, menu commands, and logs help you avoid issues that may arise when migrating to different environments or when there are software versions.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later

Table 125: 7.6 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
You can export strategies and subroutines in archive (*.zcf), native (*.rbn), open (*.xml), and text (*.kvl) format. All other objects are exported in text (*.kvlt) format.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
The properties of any strategy object can be exported to/imported from a text file through context menu commands `Export` object and `Import` object. Before inserting an imported object in another strategy, you can edit the object properties.						
You can now view a loaded strategy without first having to unload it.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
The properties of any strategy object can be viewed/edited as plain text. This feature is useful when if there is a problem opening an object property dialog box.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
The Web Service object property dialog box allows you to provide parameters that can be used to authenticate (if necessary) Web Service requests during URS communication with the specified Web Service.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later

Table 125: 7.6 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
The `MultiScreen` and `Screen` objects now use screening rule display names instead of object names. This assists in name resolution when business processes containing routing strategies that use these objects are exported and imported back to different environments. The `MultiScreen` object gives the option of getting screening data from a variable.	Yes	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
The `Acknowledgement`, `Autoresponse`, `Chat Transcript`, `CreateEmailOut`, `CreateNotification`, `Create SMS`, and `Forward` objects now use Standard Response display names instead of object names. This assists in name resolution when business processes containing routing strategies that use these objects are exported and imported back to different environments.	Yes	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
The `inactivity-timeout` option allows you to require that users log back into IRD after a specified period of user inactivity.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
IRD implements Application level security. In order to use IRD 7.6, each Person object must have one or more Access Groups assigned. Any user without an assigned Access Group can open IRD, but can only view the GUI.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
When creating subroutines, the Input Parameters dialog box allows you to specify the nature of all input parameters.	No	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later

Table 125: 7.6 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
Custom Server						
You can secure the client-side port of the Custom Server connection to Configuration Server. For other servers, use the Application object (Connections list).	For component support of client-side port security, see Table 126.					

Client-Side Port Definition

Table 126 indicates where client-side port configuration is supported for other servers.

Table 126: Solution Component Support for Client-Side Port Security

Clients	Config. Server/ Config. Server Proxy	Custom Server	T-Server	DB Server	Interac-tion Server	Stat Server	URS
URS 8.1	Yes, 7.6+ required	Yes, 7.6+ required	Yes, 7.6+ required	Yes, 7.6+ required	Yes, 8.1 required	Yes, 8.1 required	--
URS 7.6 or 8.0	Yes, 7.6+ required	Yes, 7.6+ required	Yes, 7.6+ required	Yes, 7.6+ required	Yes, 8.0 required	Yes, 8.0 required	--
Custom Server 7.6	Yes, 7.6+ required	--	NA	NA	NA	NA	NA
Custom Server 8.0	Yes, 7.6+ required	--	NA	NA	NA	NA	NA

Notes: NA = Not Applicable.

Client-side port configuration is not supported for Load Distribution Server or Message Server.

For detailed information on client-side port configuration, see the "Client-Side Port Definition" chapter of the *Genesys 7.6 (or later) Security Deployment Guide*.

7.5 Feature and Component Matrix

Table 127 shows what components are required to use the new features and capabilities in Universal Routing 7.5, which can work in a pure voice environment or with Genesys Multimedia components.

Table 127: 7.5 Feature and Component Matrix

Feature	Multimed. 7.5 or 7.6 Compon. required?	URS/IRD version required	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
Universal Routing Server							
Cost-based routing. URS can calculate the Infrastructure and/or Resource cost of routing to any target and use the cost as additional target selection criteria. For more information, see the *Universal Routing 7.6 Cost-Based Routing Configuration Guide.*	No. Support only for voice and voip interaction.	URS/IRD 7.5 or later	6.5 or later	6.5 or later	6.5 or later	7.5	6.5 or later
Share agent by service level agreement routing. Allows you to perform conditional routing without the need to configure “looping” in complex strategies. For more information, see the *Universal Routing 7.6 Application Configuration Guide*.	No	URS/IRD 7.5 or later	6.5 or later	6.5 or later	6.5 or later	7.0.1 or later	6.5 or later

Table 127: 7.5 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	URS/IRD version required	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
URS can recognize a new Business Attribute used to represent a Global Interaction Type. You can use this attribute to track the original purpose of an interaction that has moved across T-Servers and/or Media Servers.	Yes	URS/IRD 7.5 or later	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
URS and ICON now synchronize virtual queue information. This avoids any potential problems with calls getting stuck in virtual queues.	No	URS/IRD 7.5 or later	7.5 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
The Service Level routing rule algorithm responsible for the expansion of the current working set of agents from ideally-skilled to non-ideally skilled considers calls in queue. This is especially applicable in a low volume and/or long talk time contact center.	No	URS/IRD 7.5 or later	6.5 or later	6.5 or later	6.5 or later	7.0.1 or later	6.5 or later

Table 127: 7.5 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	URS/IRD version required	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
Interaction Routing Designer							
In IRD's Interaction Design window, a new Limitations tab in the strategy properties dialog box reflects the configuration limitations associated with the strategy.	Yes 7.5 or later	URS/IRD 7.5 or later	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
In the Target Selection tab of the Routing Selection object, URS accepts agent skills and object properties ("pseudo statistics") as target selection criteria.	No	URS/IRD 7.5 or later	6.5 or later	6.5 or later	6.5 or later	7.0.1 or later	6.5 or later
The Voice Treatment object, Play Application, now lets you indicate whether a custom parameter is a string or numeric datatype.	No	URS/IRD 7.5 or later	6.5 or later	6.5 or later	6.5 or later	7.0.1 or later	6.5 or later
When editing a business process in IRD's Interaction Design window, you can now add comments.	Yes 7.5 or later	URS/IRD 7.5 or later	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later

Table 127: 7.5 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	URS/IRD version required	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
Interaction Design lets you create a visually less complex flow. Global view allows you to display all business process objects found in the window as well as print them. Deployment view presents the names of the applications, ports and connections.	Yes 7.5 or later	URS/IRD 7.5 or later	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
You can now store IRD re-usable objects in custom as well as default folders of type `Script`.	No	URS/IRD 7.5 or later	6.5 or later	6.5 or later	6.5 or later	7.0.1 or later	6.5 or later
New Outbound strategy-building objects let you automate building Calling Lists, finishing the processing Calling List records, rescheduling customer calls, and updating Calling List records. You can also add customer records to Do Not Call lists from within a strategy. Requires Outbound Contact 7.5.	Yes 7.5 or later	URS/IRD 7.5 or later	7.5 or later	6.5 or later	6.5 or later	7.5	6.5 or later

Table 127: 7.5 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	URS/IRD version required	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
Support of new Outbound Contact capability to assign agents to various Campaigns. The Target Selection tab in both objects adds target type: Campaign Group. Requires Outbound Contact 7.5.	No unless routing non-voice interactions then need 7.5 or later	URS/IRD 7.5 or later	7.5 or later	6.5 or later	6.5 or later	7.5	6.5 or later
Functions SelectDN and SData add the `Campaign Group` target as an additional parameter. Requires Outbound Contact 7.5.	No unless routing non-voice interactions, then need 7.5 or later	URS/IRD 7.5 or later	7.2 or later	6.5 or later	6.5 or later	7.5	6.5 or later

Table 127: 7.5 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	URS/IRD version required	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
The installation package includes strategy bytecode to automatically route outbound calls/interactions to Campaign Groups. Since a pure Genesys Outbound Contact customer does not have the rights to edit strategies, the Universal Routing 7.6 Deployment Guide provides instructions for loading the bytecode. A new strategy option instructs URS to run the strategy. For ERS/NRS inbound voice customers, an editable strategy of the same content is provided as well as utility and sample strategy/subroutines that can be imported, edited, and used as customers see fit. Requires Outbound Contact 7.5.	No unless routing non-voice interactions then need 7.5 or later	URS/IRD 7.5 or later	7.5 or later	6.5 or later	6.5 or later	7.5	6.5 or later

Table 127: 7.5 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	URS/IRD version required	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
IRD's dialog box for defining custom statistics lets you define statistics based on Java Extensions. You can now enter parameters for JavaCategory	No	URS/IRD 7.5	7.0.2 or later	6.5 or later	6.5 or later	7.0.1 or later	6.5 or later
Custom Server							
A new Common Log function allows you to write user-defined strings to the same log file as Custom Server. Such strings can be useful for troubleshooting, such as when using Custom Server to retrieve information from a non-SQL database. The sample Router Custom Procedure file (`rcp.h`) contains the new command for writing to the log file, `RC_LOGINIT`.	No	URS/IRD 7.5	6.5 or later	7.5 6.5	or later	7.0.1 or later	6.5 or later

Table 127: 7.5 Feature and Component Matrix (Continued)

Feature	Multimed. 7.5 or 7.6 Compon. required?	URS/IRD version required	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
Other							
When running the Configuration Database Update script to update a database for storage strategies, the update script for DB2 gives the option of defining a strategy table that allows storing more than one megabyte of data.	No	URS/IRD 7.5	6.5 or later	6.5 or later	6.5 or later	7.0.1 or later	6.5 or later

7.2 Feature and Component Matrix

Table 128 shows what components are required to use the new features and capabilities in Universal Routing 7.2, which can work in a pure voice environment or with Genesys Multimedia components.

Table 128: 7.2 Feature and Component Matrix

Feature	Requires Multimedia 7.2 Compo-nents?	URS/IRD version required	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
Universal Routing Server							
Setting thresholds and counting calls on non-configured DNs. To count calls at these DNs, you must configure the URS call_monitoring option, the new RStatCallsInQueue statistic, and the new NMTExtractTargets function (which is used as a helper function). This functionality is applicable only to a single-URS environment.	No	URS/IRD 7.2 or later	6.5 or later	6.5 or later	6.5 or later	7.0.1 or later	6.5 or later
Improved load balancing and ability to compensate for statistics from Stat Server being out-of-sync on account of network delays. You must configure the new URS count_calls option, and the new RStatCallsInQueue and RStatLoadBalance statistics. To be used only in a single-URS environment.	No	7.2 or later	6.5 or later	6.5 or later	6.5 or later	6.5 or later	6.5 or later

Table 128: 7.2 Feature and Component Matrix (Continued)

Feature	Requires Multimedia 7.2 Compo-nents?	URS/IRD version required	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
The SetThresholdEx function replaces the SetThreshold function. It enables you to use variables in statistics parameters.	No	7.2 and later	6.5 or later	6.5 or later	6.5 or later	6.5 or later	6.5 or later
Customization of URS log data using the verbose log option. You can set the verbose level separately for each routing point. You can also change the level of messages.	No	7.2 and later	6.5 or later	6.5 or later	6.5 or later	6.5 or later	6.5 or later
Support of multi-tenant Interaction Server and Universal Contact Server.	Yes	7.2 or later	7.2 or later	6.5 or later	6.5 or later	7.2 or later	6.5 or later
Interaction Routing Designer							
Interface updates—notably, the former Strategy Design view is now called the Routing Design window and the Interaction Workflow view (or IWD view) is now called the Interaction Design window.	Yes (to use the Interaction Design window)	URS/IRD 7.2 and later	6.5 or later	6.5 or later	6.5 or later	7.1 or later	6.5 or later

Table 128: 7.2 Feature and Component Matrix (Continued)

Feature	Requires Multimedia 7.2 Compo-nents?	URS/IRD version required	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
Five new Multimedia objects: • CreateEmailOut • CreateNotification • CreateSMS • Identify Contact • Update Contact	Yes	URS/IRD 7.2 and later	7.2 or later	6.5 or later	6.5 or later	7.0.1 or later	6.5 or later
Improvements to existing objects to better handle open media interactions. The Screen, MultiScreen, and Classify objects handle all text-based interactions in which the content is in the attached data. The Acknowledgement and Autoresponse objects have been extended to apply to all text-based channels, including chat and SMS.	Yes	URS/IRD 7.2 and later	7.2 or later	6.5 or later	6.5 or later	7.0.1 or later	6.5 or later
The Interaction Design window shows Media Servers and the staging queues associated with them.	Yes	URS/IRD 7.2 and later	7.2 or later	6.5 or later	6.5 or later	7.0.1 or later	6.5 or later

Table 128: 7.2 Feature and Component Matrix (Continued)

Feature	Requires Multimedia 7.2 Compo-nents?	URS/IRD version required	Stat Server version required	Custom Server version required	LDS version required	Config Server version required	T-Server version required
You can now activate or deactivate all strategies belonging to a specific business process at one time from the Interaction Design window.	Yes	URS/IRD 7.2 and later	7.2 or later	6.5 or later	6.5 or later	7.1	6.5 or later
When importing business processes containing objects with the same names as existing ones, you can now overwrite the existing objects with the imported ones, create the imported objects in an alternative location, or keep the existing objects	Yes	URS/IRD 7.2 and later	7.2 or later	6.5 or later	6.5 or later	7.0.1 or later	6.5 or later

Routing Component Compatibility

This section starts with routing strategy compatibility and continues with Universal Routing Server component compatibility.

No special migration steps are required when migrating strategies from 6.5.x or later to 7.2 and later. Note, however, that you cannot open strategies that use 7.2 or later functionality in IRD 6.5.

Note: Strategies created with the 5.x Strategy Builder are not supported in Universal Routing 7.2 or later. You must recreate them using IRD 7.2 or later. Refer back to Step 4 in "Migration and Upgrade Order" on page 702.

Routing Strategy Compatibility with Framework

Table 129 shows which routing strategy versions are compatible with various versions of Genesys Framework.

Table 129: Strategy Compatibility in Framework Environments

	6.0 and 6.1 Framework	6.5 and 7.0 Framework	7.0.1 and 7.1 Framework	7.2 and 7.5 Framework	7.6 Framework	8.0 Framework	8.1 Framework
7.2 strategy	Not supported	Supported except that certain functions require a Framework 7.0.1 or later environment in order to select Business Attributes.	Supported	Supported	Supported	Supported	Supported
7.5 strategy	Not supported	Supported except that certain functions require a Framework 7.0.1 or later environment in order to select Business Attributes.	Supported. If implementing Cost-Based Routing, Framework 7.5 or later is required.	Supported. If implementing Cost-Based Routing, Framework 7.5 or later is required.	Supported	Supported	Supported
7.6 strategy	Not supported	Supported except that certain functions require a Framework 7.0.1 or later environment in order to select Business Attributes.	Supported. If implementing Cost-Based Routing, Framework 7.5 or later is required.	Supported. If implementing Cost-Based Routing, Framework 7.5 or later is required.	Supported	Supported	Supported

Table 129: Strategy Compatibility in Framework Environments (Continued)

	6.0 and 6.1 Framework	6.5 and 7.0 Framework	7.0.1 and 7.1 Framework	7.2 and 7.5 Framework	7.6 Framework	8.0 Framework	8.1 Framework
8.0 strategy	Not supported	Supported except that certain functions require a Framework 7.0.1 or later environment in order to select Business Attributes.	Supported. If implementing Cost-Based Routing, Framework 7.5 or later is required.	Supported. If implementing Cost-Based Routing, Framework 7.5 or later is required.	Supported	Supported	Supported
8.1 strategy	Not supported	Supported except that certain functions require a Framework 7.0.1 or later environment in order to select Business Attributes.	Supported. If implementing Cost-Based Routing, Framework 7.5 or later is required.	Supported. If implementing Cost-Based Routing, Framework 7.5 or later is required.	Supported	Supported	Supported

Strategy Compatibility with URS/IRD

Table 130 shows the compatibility between routing strategies and URS.

Note: "Supported" in the table below indicates that a strategy created in the version of Universal Routing indicated in a heading cell can be opened/executed by the IRD/URS version in the first column with the exception of objects that did not yet exist. For example, assume you use IRD 7.2 to open a strategy created in Universal Routing 7.5 and that strategy contains one of the Outbound strategy-building objects introduced in 7.5. In this case, URS 7.2 cannot execute that object because it was not coded to do so. Also, see the Note on page 703.

Table 130: Routing Strategy, IRD and URS Compatibility

	5.x Strategies	6.0 Strategies	6.1, 6.5, and 7.0 Strategies	7.0.1 and 7.1 Strategies	7.2 and 7.5 Strategies	7.6 Strategies	8.0 Strategies	8.1 Strategies
URS and IRD 8.1	Not Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported
URS and IRD 8.0	Not Supported	Supported	Supported	Supported	Supported	Supported	Supported	Supported
URS and IRD 7.6	Not Supported	Supported	Supported*	Supported	Supported	Supported	Supported	Supported
URS and IRD 7.5	Not Supported	Supported	Supported*	Supported	Supported	Supported	Supported	Supported
URS and IRD 7.2	Not Supported	Supported	Supported*	Supported	Supported	Supported	Supported	Supported

*Strategies using the 6.x/7.0 Acknowledgement and Autoresponse objects cannot be used in Business Processes.

Custom Server Compatibility

Table 131 shows which versions of Custom Server are compatible with the various versions of URS and IRD.

Table 131: Custom Server and URS Compatibility

	5.x Custom Server	6.x Custom Server	7.x Custom Server	8.0 Custom Server	8.1 Custom Server
URS/IRD 8.1	Not Supported	Supported	Supported	Supported	Supported
URS/IRD 8.0	Not Supported	Supported	Supported	Supported	Supported
URS/IRD 7.6	Not Supported	Supported	Supported	Supported	Supported
URS/IRD 7.5	Not Supported	Supported	Supported	Supported	Supported
URS/IRD 7.2	Not Supported	Supported	Supported	Supported	Supported

Chapter

36 Changes in Universal Routing Through 8.1

This section provides information you need in order to upgrade the components and configuration options of Universal Routing to release 8.0 or 8.1 from releases 6.5 through 7.6.

This section only discusses changes (additions, deletions, and modifications) in the product that need to be addressed during the migration process.

The product documentation for each release contains a comprehensive list of changes from release to release:

- Universal Routing 7.0: *Universal Routing 7 Getting Started Guide*, Chapter 2, "Overview."
- Universal Routing 7.0.1: *Universal Routing 7 Routing With MCR Getting Started Guide*, Chapter 2, "Overview."
- Universal Routing 7.1: *Universal Routing 7.1 Deployment Guide*, Chapter 2, "Overview."
- Universal Routing 7.2: *Universal Routing 7.2 Deployment Guide*, Chapter 1, "Overview."
- Universal Routing 7.5: *Universal Routing 7.5 Deployment Guide*, Chapter 1, "Overview."
- Universal Routing 7.6: *Universal Routing 7.6 Deployment Guide*, Chapter 1, "Overview."
- Universal Routing 8.0: *Universal Routing 8.0 Deployment Guide*, Chapter 1, "Overview."
- Universal Routing 8.1: *Universal Routing 8.1 Deployment Guide*, Chapter 1, "Overview."

This chapter discusses the following topics:

Component Changes for Universal Routing

Table 132 shows new components for Universal Routing introduced between releases 6.5 to 8.1. For component changes in releases from 5.1 through 6.5, see the *Genesys 6.5 Migration Guide*.

Table 132: Component Changes from 6.5 to 8.1

Current Component Name	Type of change	Change Occurred in Version #	Details (optional)
Universal Routing Server	none	N/A	
Interaction Routing Designer	Interaction Workflow Designer incorporated into IRD	7.1	Interaction Workflow Designer is no longer a separate component, but has been integrated into IRD and is available to users who are running Genesys Multimedia (formerly Genesys Multi-Channel Routing).
Custom Server	none	N/A	
Orchestration Server	new	8.0	
Load Distribution Server	none	N/A	
Universal Callback Server	new	7.0	The Genesys Voice Callback product is a new option for Universal Routing.

Configuration Option Changes

Table 133 summarizes the changes to the options for specific component(s) of Universal Routing.

Note: There are no configuration option changes in Universal Routing that are applicable for migration. Refer to the *Universal Routing 8.0* or *8.1 Reference Manual* for more information about Universal Routing 8.0 or 8.1 configuration options.

Table 133: Configuration Option Changes from 6.5 to 8.1

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Routing Server	agent_att	new	8.1	Specifies time which URS may use as a value for an agent's average talking time for voice.
Universal Routing Server	use_agent_att	new	8.1	Used with option agent_att for calculating some metrics returned by the function RvqData.
Universal Routing Server	alternative_server	new	8.1	Specifies name of alternative Stat Server application for URS to reconnect to.
Universal Routing Server	backup_mode	reintroduced (retired in 6.x)	8.1	Specifies redundancy type of alternate Stat Server applications.
Universal Routing Server	hot_backup_priority	new	8.1	Specifies priority of alternative Stat Server.
Universal Routing Server	cpu_emergency_level	new	8.1	Allows URS to control its own CPU consumption.
Universal Routing Server	emergency_verbose	new	8.1	Specifies alternative verbose log level output

Table 133: Configuration Option Changes from 6.5 to 8.1 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Routing Server	startup_verbose	new	8.1	Specifies verbose log level output on URS startup.
Universal Routing Server	reduced	enhanced	8.1	Option value extended to enable URS to self-check CPU consumption.
Universal Routing Server	hanged_call_time	new	8.1	Specifies the amount of time that URS will keep a hanged interaction in its memory.
Universal Routing Server	max_cpu_objects_slice	new	8.1	Allows URS to control loop detection functionality.
Universal Routing Server	strategy	enhanced	8.0	To configure URS to work with Orchestration Server (ORS), this option must be set to a value of `ORS`. Refer to the *Universal Routing 8.0 Deployment Guide* and *Orchestration Server 8.0 Deployment Guide* for more information.

Table 133: Configuration Option Changes from 6.5 to 8.1 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Routing Server	verification_mode	new (see Note in Details column)	8.0	Controls whether URS will reapply verification time to targets that have previous verification times applied against them that have not yet expired. Note: this option was added in a later version of URS 7.6 but was not documented in the *Universal Routing 7.6 Reference Manual*; it was documented in the *Universal Routing Server 7.6 Release Note*.
Universal Routing Server	hide_private_data	new	7.6.1	When set to `true`, in addition to its existing functionality: URS will not print in its logs parameters for Web Service requests and also any result that a Web Service returns. http_bridge will not print in its log parameters and results of Web Service requests. http_bridge will not generate an xml-soap log.

Table 133: Configuration Option Changes from 6.5 to 8.1 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Routing Server uses this option set in Message Server	lds	new	7.6	If using a Message Server dedicated to handling communications between a group of URSs (in this case, option using has the value of lds), then use option lds to indicate the specific type of communication.
Universal Routing Server	report_reasons	new	7.6	Enables you to add information to interactions regarding the reason for routing for reporting purposes (such as default routing performed by the switch).
Universal Routing Server	report_statistics	new	7.6	To support reporting on load balancing, and to allow for both real-time and historical reporting of calls in transition, use this option to instruct URS to attach additional reporting data to calls.
Universal Routing Server uses this option set in Message Server	using	new	7.6	Facilitates communications between a group of URSs, such as for the purpose of load distribution.
Interaction Routing Designer	inactivity-timeout	new	7.6	Allows you to require that users log back into IRD after a specified period of user inactivity.

Table 133: Configuration Option Changes from 6.5 to 8.1 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Routing Server	call_kpl_time	new	7.5	Fixes the potential problem of calls getting stuck in virtual queues by improving synchronization between URS, T-Server, and various Genesys Reporting components (ICON, Stat Server, and so on).
Universal Routing Server	environment	new	7.5	Informs URS about various environment parameters in case there are some actions URS should undertake to guarantee successful functioning in that particular environment.
Universal Routing Server	inv_connid_errors new		7.5	Allows you to explicitly specify a list of T-Server error codes that will result in URS aborting a chain of re-routing attempts.
Universal Routing Server	pickup_calls	enhanced	7.5.	Option is extended with a new reverse parameter. When set to reverse, the connection ID list returned by T-Server lists oldest interactions first. This allows the older items previously in queue to be routed before the young items.
Universal Routing Server	strategy	retired in 6.x, re-used in 7.5	7.5	Instructs URS to run a Genesys-supplied strategy to support multi-Campaign agents.

Table 133: Configuration Option Changes from 6.5 to 8.1 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Routing Server	verification_time_agent	new	7.5	If an agent state event is not related to an agent's DN state, (the agent pushes the Ready button, for example), then URS uses max(verification_time, verification_time_agent) as the verification time to block the agent.
Universal Routing Server	verification_time_dn	new	7.5	If an agent state event is related to an agent's DN state (agent hangs up the phone, for example), then URS uses max(verification_time, verification_time_dn) as the verification time to block the agent.
Universal Routing Server	count_calls	new	7.2	Used to enable URS to calculate the RStatCallsInQueue and RStatLoadBalance statistics for specified DNs.
Universal Routing Server	monitoring_time	new	7.1	Specifies how often URS sends monitoring data to IRD, which can impact performance
Interaction Routing Designer	bytecode	new	7.1	Used when importing strategies to create a strategy that, when exported, is ready to run without compiling.

Table 133: Configuration Option Changes from 6.5 to 8.1 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Routing Server	pulse_time	new	7.1	Specifies the approximate time (in seconds) between consecutive re-checking of target states.
Universal Routing Server	http_port	new	7.0.1	Sets communication parameters with the http_bridge component used for Web Services and Workforce Management 7.0.
Universal Routing Server	skip_targets	new	7.0.1	Allows URS to automatically detect a situation when all target agents are logged out and skip waiting time in this case.
Universal Routing Server	use_agent_capacity	new	7.0.1	Determines whether URS should route based on agent capacity rules.
Universal Routing Server	use_agentid	enhanced	7.0.1	No longer affects the value of the RequestRouteCall Extension attribute DN. Now the value always contains the DN number as reported by Stat Server. The real access number (old content of attribute DN) is placed in a new Extension attribute called ACCESS.
Universal Routing Server	change_tenant	new	7.0	Used by the Switch to Strategy object. It allows URS to switch interaction content from one Tenant to another Tenant.

Table 133: Configuration Option Changes from 6.5 to 8.1 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Routing Server	close_statistic time	retired	7.0	Statistics are now automatically deleted when the corresponding Configuration Layer object is deleted.
Universal Routing Server	close_unused_statistic	retired	7.0	Statistics are now automatically deleted when the corresponding Configuration Layer object is deleted.
Universal Routing Server	hide_private_data	new	7.0	Prevents URS from showing attached data in its log of T-Library events.
Universal Routing Server	monitor_calls	enhanced	7.0	Allow interactions to be monitored at the strategy/subroutine level in addition to the existing routing point level.
Universal Routing Server	null value	new	7.0	Used when a reply from DB Server contains empty (NULL) values.
Universal Routing Server	prestrategy	new	7.0	Gives consult calls time to merge with the original call and avoid invalid connection-identifier messages.
Universal Routing Server	reg_attempts option	enhanced	7.0	No longer hardcoded to 1; you can now specify the number of attempts to register on a routing point.
Universal Routing Server	report_targets	new	7.0	Enables the collection and reporting of skill and routing target information.

Table 133: Configuration Option Changes from 6.5 to 8.1 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Routing Server	route_consult_call	enhanced	7.0	Extended with a new value: time in milliseconds.
Universal Routing Server	schedule0xnn	new	7.0	Specifies whether strategy schedules can be loaded on routing points.
Universal Routing Server	source	new	7.0	Supports loading strategy schedules on routing points.
Universal Routing Server	use_dn_type	enhanced	7.0	Extended with one additional location in Configuration Layer: It can now be specified on Switches.
Universal Routing Server	use_extrouter, use extrouting_type	enhanced	7.0	Extended with one additional location in Configuration Layer: they can now be specified on Switches.
Universal Routing Server	use_extrouter	enhanced	7.0	Extends its range of valid values in support of external routing.
Universal Routing Server	use_service_objective	new	7.0	Specifies whether to use a predefined baseline Service Objective when selecting interactions.
Universal Routing Server	none	Option/ section renamed		

Table 133: Configuration Option Changes from 6.5 to 8.1 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Routing Server	close_unused_statistic, close_statistic_time, reg_mode	retired	7.x	
Universal Routing Server	backupserver, backup_priority_level, backup_mode (retired in 6.x, reintroduced in 8.1), joint_work, log_file_name, log_remove_old_files, log_file_size, log_buffing, log_check_interval, kprl_priority, kpl-interval. Option strategy was retired in 6.x but is reused in 7.5	retired	6.x	

Note: For information about the configuration option changes:

- For 7.0, see the *Universal Routing 7 Reference Manual,* Chapter 5, "Universal Routing Server Options."
- For 7.01, see the *Universal Routing 7 Routing with MCR Reference Manual,* Chapter 5, "Universal Routing Server Options."
- For 7.1, see the *Universal Routing 7.1 Reference Manual*, Chapter 5, "Options."
- For 7.2, see the *Universal Routing 7.2 Reference Manual*, Chapter 4, "Configuration Options."
- For 7.5, see the *Universal Routing 7.5 Reference Manual*, Chapter 4, "Configuration Options."
- For 7.6, see the *Universal Routing 7.6 Reference Manual*, Chapter 4.
- For 8.0, see the *Universal Routing 8.0 Reference Manual*, Chapter 4.
- For 8.1, see the *Universal Routing 8.1 Reference Manual*, Chapter 4.

Changes to Functions

Table 134 summarizes the changes to the functions available in Interaction Routing Designer.

Table 134: Function Changes from 6.5 to 8.1

Component Name	Function Name	Type of Change	Change Occurred in Version #	Details (optional)
Interaction Routing Designer	RvqData	new	8.1	Query information about the Router's queues.
Interaction Routing Designer	SetQueueLabel n	ew	8.1	Labels Router's queues after obtaining query information about them
Interaction Routing Designer	ClaimAgentsFromOCS	new	8.1	Allows URS to control resource sharing with OCS.
Interaction Routing Designer	CountSkillnGroupEx	new	8.1	Similar to CountSkillInGroup but allows waiting Stat Server to open necessary statistics, and can be applied to place groups.
Interaction Routing Designer	CountTargetsByThreshold	new	8.1	Returns number of qualified targets.
Interaction Routing Designer	FindConfigObject	new	8.1	Obtains information about a specific configuration object.
Interaction Routing Designer	GetCurrentLeg	new	8.1	Obtains information about the DN in which the interaction is located.
Interaction Routing Designer	GetCurrentScript	new	8.1	Returns the name of the current strategy.
Interaction Routing Designer	GetRawAttribute	new	8.1	Allows URS to facilitate accessing arbitrary TEvents attributes from a strategy.

Table 134: Function Changes from 6.5 to 8.1 (Continued)

Component Name	Function Name	Type of Change	Change Occurred in Version #	Details (optional)
Interaction Routing Designer	GetSkillnGroupEx	new	8.1	Similar to GetSkillInGroup but allows waiting statserver to open the necessary statistics, and can be applied to place groups
Interaction Routing Designer	KVListFindSubList	new	8.1	A utility function for searching content of LIST variables.
Interaction Routing Designer	MultiplyTargets	new	8.1	Allows URS to increment targets that a call is waiting on, upon reentering into a target selection object.
Interaction Routing Designer	StrFormatTime	new	8.1	Formats the current time into string presentation.
Interaction Routing Designer	SuspendForEvent Enhance	d	8.1	Intercepts any detectable event.
Interaction Routing Designer	TargetState	new	8.1	Obtains information about a specific agent or place.
Interaction Routing Designer	JumpToTenant	new	8.0	Allows you to switch to a strategy from a different tenant.
Interaction Routing Designer	FirstHomeLocation	new	7.6.1	Returns the value of the `FirstTransferHomeLocation` field in the T-Server event that started the strategy.
Interaction Routing Designer	SetHomeLocation	new	7.6.1	Allows you to specify the home location for the current call in a strategy.
Interaction Routing Designer	GetUTC, UTCAdd, UTCFromString, and UTCToString.	new	7.6.1	Date and Time functions that you can use when setting the scheduled time in interactions.

Table 134: Function Changes from 6.5 to 8.1 (Continued)

Component Name	Function Name	Type of Change	Change Occurred in Version #	Details (optional)
Interaction Routing Designer	CountSkillInGroup	enhanced	7.6	Uses the default Stat Server if the Stat Server parameter is missed in the function specification
Interaction Routing Designer	ExcludeAgents	enhanced	7.6	Excludes the agent if the agent was selected as a target and then excluded from the list of valid targets.
Interaction Routing Designer	ExtrouterError	new	7.6	Changes the default URS reaction upon failure to get a remote access number. If set to false, URS will continue the attempt to route the call based on the original number.
Interaction Routing Designer	InVQWaitTime	enhanced	7.6	StatExpectedWaitingTime statistic in the formula for the InVQWaitTime function is replaced with max(StatLoadBalance, 0). StatLoadBalance more accurately counts time to wait.
Interaction Routing Designer	StrTargets	new	7.6	Use to implement a load balancing algorithm in your strategies. Facilitates the creation of a comma separated list of targets for use as input parameters to the utility subroutines described below.

Table 134: Function Changes from 6.5 to 8.1 (Continued)

Component Name	Function Name	Type of Change	Change Occurred in Version #	Details (optional)
Interaction Routing Designer installation package includes rlu.zcf file. When imported into IRD, contains six utility subroutines.	Utility subroutines: rlu_mapc, rlu_mapcar, rlu_mapc_group, rlu_mapc_group_route rlu_select_max, rlu_select_vq_route	enhanced	7.6	Accept a comma-separated list of targets and a corresponding "selecting" procedure and then returns the optimal target.
Interaction Routing Designer	CountSkillInGrup and GetSkillInGroup	enhanced	7.6	Extended to accept more than one target. Instead of a single Agent Group target, you can now specify a comma-separated list of Agents, Agent Groups, Places, or Place Groups.
Interaction Routing Designer	DeleteAttachedData	new	7.5	Allows you to delete attached data.
Interaction Routing Designer	ExpandWFActivity	new	7.5	Takes as an argument a Workforce Management Activity name and returns the list of agents assigned to the Activity from current moment of time up to next CutOffTime number of seconds.
Interaction Routing Designer	OnRouteError	new	7.5	allows you to specify how URS should react to specific types of errors.
Interaction Routing Designer	SData and SelectDN functions	enhanced	7.5	Both functions add a new target type called Campaign Group
Interaction Routing Designer	SendEvent en	hanced	7.5	Extends its Event parameter with one more key, tserver. Use to send User Events to any DN on T-Servers to which URS connects.

Table 134: Function Changes from 6.5 to 8.1 (Continued)

Component Name	Function Name	Type of Change	Change Occurred in Version #	Details (optional)
Interaction Routing Designer	TargetSelectionTuning	new	7.5	Can be used to activate cost-based routing. Causes URS to extend statistic selection using the cost of routing to the specified target as the main criteria.
Interaction Routing Designer	UseAgentStatistics new		7.5	The StatExpectedWaitingTime statistic in the formula for the InVQWaitTime function is replaced with max(StatLoadBalance, 0). StatLoadBalance more accurately counts time to wait.
Interaction Routing Designer	NMTExtractTargets	new	7.2	Retrieves information about interactions sent from the Genesys environment to non-monitored DNs.
Interaction Routing Designer	SetThresholdEx	new	7.2	Defines queue or routing point statistical thresholds for determining the availability of such DNs as targets. Replaces the SetThreshold function
Interaction Routing Designer	SetLastError	new	7.1	Checks subroutine input parameters and raises an error condition if one or more parameters are invalid.
Interaction Routing Designer	GetAvgStatData, GetMaxStatData, and GetMinStatData	new	7.1	Calculate a specified statistic for a target list and return the average/max./minimum values of the statistic for the target list.

Table 134: Function Changes from 6.5 to 8.1 (Continued)

Component Name	Function Name	Type of Change	Change Occurred in Version #	Details (optional)
Interaction Routing Designer	IsSpecialDayEx	new	7.1	Extends IsSpecialDay by adding Time Zone parameter and another parameter that specifies whether to use any time limits in a Statistical Day.
Interaction Routing Designer	SelectTargetsByThreshold	new	7.1	Finds the best available target(s) from a list of targets by applying a statistic with a threshold comparison against the input target list.
Interaction Routing Designer	Router	new	7.1	Can return either the name of the URS Application running a strategy or the name of the primary URS Application.
Interaction Routing Designer	BusinessData, BusinessDataINT, InteractionData, InteractionDataINT, UpdateBusinessData, UpateInteractionData	new	7.0.1	Extended support for using interaction and business data (new CME Business Attributes).
Interaction Routing Designer	ExcludeAgents	new	7.0.1	Instructs URS not to route interactions to any agent on the specified list of agents.
Interaction Routing Designer	GetMediaTypeName	new	7.0.1	Supports routing based on agent capacity model. Returns the name of the specified media type making it possible for strategies to analyze custom media types.
Interaction Routing Designer	BlockDN, DeliverToIVR, SelectDN enhanced	new target type	7.0.1	A new target type called DN is added to support non-configurable targets.

Table 134: Function Changes from 6.5 to 8.1 (Continued)

Component Name	Function Name	Type of Change	Change Occurred in Version #	Details (optional)
Interaction Routing Designer	ActiveServerName	new	7.0.1	Detects and returns the name of the server from the primary/backup pair of servers that URS is actually working with (active) at the moment when the function is called.
Interaction Routing Designer	UseMediaType	new	7.0.1	Supports routing based on agent capacity model. Specifies the media types associated with a target.
Interaction Routing Designer	SendRequest	new	7.0.1	Makes it possible to send a request to T-Server; for example, a request to redirect an unanswered call to a local routing point in the case of ring-no-answer.
Interaction Routing Designer	Attach	moved	7.0	Moved to CallInfo category.
Interaction Routing Designer	BlockDN	new	7.0	Blocks and unblocks a DN for a specified period of time. Also see Block DN enhancement on page 758.
Interaction Routing Designer	CallsWaiting enhanced		7.0	The list of possible targets is extended to include virtual queues.
Interaction Routing Designer	CreateSkillGroup	new	7.0	Can be used instead of GetSkillInGroup to take full advantage of the redesigned distribution algorithm.
Interaction Routing Designer	ExtensionAttach	moved	7.0	Moved to CallInfo category.

Table 134: Function Changes from 6.5 to 8.1 (Continued)

Component Name	Function Name	Type of Change	Change Occurred in Version #	Details (optional)
Interaction Routing Designer	ExtensionData	moved	7.0	Moved to CallInfo category.
Interaction Routing Designer	ExtensionUpdate	moved	7.0	Moved to CallInfo category.
Interaction Routing Designer	FindServiceObject	new	7.0	Gives the option of determining the baseline Service Objective for an incoming interaction by reading a Configuration Manager table.
Interaction Routing Designer	GetCustomerSegment GetServiceType GetServiceObjective	new	7.0	Give the option of assigning/getting customer segment, service type, and/or service objective attributes to/from incoming interactions.
Interaction Routing Designer	IncrementPriority	new	7.0	Increments interaction priority by the Increment every Interval second.
Interaction Routing Designer	InVQWaitTime	new	7.0	Provides the expected wait time for a call in a Virtual Queue by taking position in queue into account.
Interaction Routing Designer	ListGetDataCfg	new	7.0	Implement the new List object. Returns the specified property of the List element.
Interaction Routing Designer	ListLookupCfg	new	7.0	Implement the new List object. Behaves exactly like the current ListLookup function except that the first parameter is the name of the new List object.

Table 134: Function Changes from 6.5 to 8.1 (Continued)

Component Name	Function Name	Type of Change	Change Occurred in Version #	Details (optional)
Interaction Routing Designer	PositionInQueue	enhanced	7.0	The list of possible targets is extended to include virtual queues.
Interaction Routing Designer	OnCallAbandoned	new	7.0	Specifies the strategy to use if a call is abandoned. Intended to provide reporting information.
Interaction Routing Designer	SetCallOption	new	7.0	Allows a strategy to override certain URS options
Interaction Routing Designer	SetStatUpdate function	new	7.0	Periodically updates statistical data in an interaction without leaving the target selection object.
Interaction Routing Designer	StrReplace new		7.0	Replaces strings.
Interaction Routing Designer	TargetComponentSelected new		7.0	Gives the ability to report on why a particular target object was selected.
Interaction Routing Designer	UseAgentState	enhanced	7.0	Format is extended.
Interaction Routing Designer	UseCustomDNType	new	7.0	Controls whether you can route to a specific DN.
Interaction Routing Designer	UseCustomAgentType	new	7.0	Controls whether you can route to a specific Agent.
Interaction Routing Designer	UseCustomPlaceType	new	7.0	Controls whether you can route to a specific Place.
Interaction Routing Designer	UData UDataInt	moved	7.0	Moved to CallInfo category.
Interaction Routing Designer	Update	moved	7.0	Moved to CallInfo category.

- In Universal Routing 6.5, the ExpandGroup function made it possible to target all Agents (or Places) of which the Group consisted instead of the Group as a whole. Using the ExpandGroup function in 6.5 resulted in performance degradation at the level of skill-based routing.
- In Universal Routing 7.2 and later, the issue of priority violations for group-based routing has been corrected. As a result, the ExpandGroup function is no longer necessary to handle priority routing issues. If you continue to use this function, you will experience the 6.5 side effect of a **negative impact on performance**.

For more detailed information about functions, see the *Universal Routing Reference Manual* for the release to which you are migrating.

Changes to Strategy-Building Objects

Table 135 on page 763 only contains changes made between releases 7.1 and 8.1. For additional information about new strategy-building objects and their uses, see:

- Universal Routing 7.0: *Universal Routing 7 Getting Started Guide,* Chapter 2, "Overview."
- Universal Routing 7.0.1: *Universal Routing 7 Routing With MCR Getting Started Guide,* Chapter 2, "Overview."
- *Universal Routing Deployment Guide* for the release to which you are migrating.
- *Universal Routing Reference Manual* for the release to which you are migrating.
- *Universal Routing Interaction Routing Designer Help* for the release to which you are migrating.

Table 135: Changes to Strategy-Building Objects, 7.1 to 8.1

Object Name	Type of Change	Occurred in Version	Comments
Selection Object, Route Interaction Object	enhanced	8.1	Provides the possibility to specify subroutine to activate the custom routing functionality.
Web Service Object	enhanced	8.1	Allows the providing of security TLS parameters. Ability to invoke REST type of HTTP requests.
Selection (and other objects with busy treatments)	enhanced	8.0	The list of busy treatments has been extended to include “Exit”. This allows the interaction to leave the object on completion of the busy treatment, as opposed to a fixed timeout.
MultiScreen, Screen	enhanced	7.6	Uses screening rule display names instead of object names. This assists in name resolution when business processes containing routing strategies that use these objects are exported and imported back to different environments. The MultiScreen object can get screening data from a variable.
Acknowledgement, Autoresponse, Chat Transcript, CreateEmailOut, CreateNotification, Create SMS, and Forward E-mail	enhanced	7.6	Uses standard response display names instead of object names. This assists in name resolution when business processes containing routing strategies that use these objects are exported and imported back to different environments.
Send Email, Acknowledgement, Autoresponse, Chat Transcript, Reply E-mail From External Resource, Create E-mail Out, Create Notification and Create SMS	enhanced	7.6	You can now use variables along with the e-mail addresses and domains in the From field of Send Email, Acknowledgement, Autoresponse, Chat Transcript, Reply E-mail From External Resource, Create E-mail Out, Create Notification and Create SMS objects.

Table 135: Changes to Strategy-Building Objects, 7.1 to 8.1 (Continued)

Object Name	Type of Change	Occurred in Version	Comments
MultiScreen	enhanced	7,6	There is no longer a limit to the number of screening rules you can attach to the MultiScreen object when you add them one by one.
Web Service	enhanced	7.6	The Web Service object property dialog now allows user to provide parameters that can be used to authenticate (if necessary) Web Service requests during router communication with the specified Web Service.
Play Application	enhanced	7.5	You can now indicate whether a customer parameter is a string or numeric datatype.
MultiFunction	new	7.5	Allows you to specify multiple functions in one IRD object. Can be used for share agent by service level agreement routing.
Add Record	new	7.5	Supports Genesys Outbound Contact. Automate building of Calling Lists by adding new record to a specified Calling List.
Do Not Call	new	7.5	Supports Genesys Outbound Contact. Use to add a phone number to a specified Do Not Call list.
Processed	new	7.5	Supports Genesys Outbound Contact. Use this object as well as Do Not Call to finalize Outbound record processing.
Update Record	new	7.5	Supports Genesys Outbound Contact. Use to update a Calling List record.
Reschedule	new	7.5	Supports Genesys Outbound Contact. Use to reschedule a customer call on a Calling List.

Table 135: Changes to Strategy-Building Objects, 7.1 to 8.1 (Continued)

Object Name	Type of Change	Occurred in Version	Comments
Service Level	enhanced	7.5	Routing rule responsible for expansion of current working set of agents from ideally-skilled to non-ideally skilled now considers calls in queue.
Selection	enhanced	7.5	Accepts agent skills and object properties as target selection criteria. Adds a General tab where you can enter a threshold expression, which can be used for share agent by service level agreement routing
Send E-mail	enhanced	7.5	Adds two new fields: Delivery Status Notification and Message Delivery Notification.
Create Interaction	enhanced	7.5	Adds new Create Contact field.
Route Interaction, Selection, Workbin	enhanced	7.5	Length of timeout field increased to accommodate use of variables.
Web Service	enhanced	7.5	Allows the use of WSDL documents to make it easier to complete the properties dialog box.
CreateEmailOut	new	7.2	Enables you to create a new outbound e-mail.
CreateNotification	new	7.2	Enables you to create an outbound e-mail notification.
CreateSMS	new	7.2	Enables you to create a new message to be sent via an E-Mail-to-SMS gateway.
Identify Contact	new	7.2	Enables you to identify one or more contacts that match selected criteria. If no contact matches, you can create a new contact having the values in the attached data.
Update Contact	new	7.2	Enables you to update or add to information about an existing contact.

Table 135: Changes to Strategy-Building Objects, 7.1 to 8.1 (Continued)

Object Name	Type of Change	Occurred in Version	Comments
Screen, MultiScreen, Classify	enhanced	7.2	Now handle all text-based interactions in which the content is in the attached data.
Acknowledgement, Autoresponse	enhanced	7.2	Now extended to apply to all text-based channels, including chat and SMS.

Changes to Predefined Statistics

Table 136 on page 766 only contains changes made between releases 7.1 and 8.1. For additional information about new predefined statistics and their uses, see:

- Universal Routing 7.0: *Universal Routing 7 Getting Started Guide,* Chapter 2, "Overview."
- Universal Routing 7.0.1: *Universal Routing 7 Routing With MCR Getting Started Guide,* Chapter 2, "Overview."
- *Universal Routing Deployment Guide* for the release to which you are migrating.
- *Universal Routing Reference Manual* for the release to which you are migrating.

Table 136: Changes to Predefined Statistics, 7.1 to 8.1

Statistic Name	Type of Change	Occurred in Version	Comments
RStatAgentsReadyMedia	new	8.1	Calculated by URS. Provides the number of agents ready to accept interactions of the current media. It can be applied to agents, places, groups, and skill expressions.
RStatTimeInReadyStateMedia	new	8.1	Calculated by URS. Provides the number of seconds before an agent is ready to accept interactions of the current media. It can be applied to agents, places, groups, and skill expressions.

Table 136: Changes to Predefined Statistics, 7.1 to 8.1 (Continued)

Statistic Name	Type of Change	Occurred in Version	Comments
RStatCallsInTransitionEx	new	8.0	Similar to RStatCallsInTransition, but takes agent reservation into account.
RStatCallsInQueue	enhanced	7.6	This enhanced statistic, which can be used for load balancing, takes into account the number of calls in transition based on currently available information. In this case, it is the number of calls sent to the target by this URS. See note below. If Router Self-Awareness is activated then calls in transition will include calls sent by all URSs participating in the same Self-Awareness group.
Note: Previous to 7.6, the number of calls in transition could apply only to calls routed by the current URS (by the router that calculates this statistic).With Router Self-Awareness mode (see page 714), URSs deployed in a load sharing mode to communicate with each other regarding selected targets and target statistics.			
RStatLoadBalance	enhanced	7.6	This load balancing statistic takes into account the number of calls in transition from the network to the contact center based on currently available information. In this case, it is the number of calls waiting in queue from URS. See above note. If Router Self-Awareness is activated then calls in transition will include calls sent by all URSs participating in the same Self-Awareness group.
RStatExpectedLoadBalance	new	7.6	In contrast to the above statistics, this load balancing statistic uses the *expected* number of calls in transition to the destination. In this case, it is the expected number of calls waiting in queue from URS. See above note.

Table 136: Changes to Predefined Statistics, 7.1 to 8.1 (Continued)

Statistic Name	Type of Change	Occurred in Version	Comments
RStatLBEWTLAA	new	7.6	This statistic uses the number of calls in transition to the destination based on currently available information. Uses expected waiting time when a call is expected to wait. When a call is not expected to wait, it uses the longest available time among all agents behind the destination queue. See above note.
RStatExpectedLBEWTLAA	new	7.6	Like the above load balancing statistics, this statistic also uses expected waiting time when a call is expected to wait and the longest available agent when a call is not expected to wait. The main difference is that it uses the *expected* number of calls in transition. See above note.
RStatCallsInTransition	new	7.6	Cannot be used for load balancing distribution, but can be used in a strategy to adjust other statistics received from Stat Server. Works for "queue like" targets (`ACDQueue`, `Routing Point`) as well as for `Agent`, `Place`, and `Agent/Place Group`. Returns the number of calls that URS believes are on the way to corresponding targets, but which have not yet arrived. Includes calls distributed by all participating URSs when Router Self-Awareness (see page 714) is activated.
RStatCost	new	7.5	Use to activate cost-based routing.

Table 136: Changes to Predefined Statistics, 7.1 to 8.1 (Continued)

Statistic Name	Type of Change	Occurred in Version	Comments
RStatCallsInQueue	new	7.2	Calculated by URS. Improves load balancing and ability to compensate for statistics from Stat Server being out-of-sync on account of network delays. You must also configure the new URS `count_calls` option and the new RStatLoad Balance statistic. To be used only in a single-URS environment. Also used when setting thresholds for calls at non-configured DNs.
RStatLoadBalance	new	7.2	Calculated by URS. Improves load balancing and ability to compensate for statistics from Stat Server being out-of-sync on account of network delays. You must also configure the new URS `count_calls` option and the new RStatLoad Balance statistic. To be used only in a single-URS environment

Chapter

37 Universal Routing Migration Procedures

This chapter discusses the migration procedures to release 8.0 or 8.1 from 6.5 or 7.x, as well as migration to release 7.6 from releases 6.5 to 7.5. It contains the following sections:

Migration of Universal Routing

The migration procedure for Universal Routing has not changed for 8.0. The following procedures can be used to migrate to 7.6 from 6.5 through 7.5, as well as to migrate to 8.0 or 8.1 from 6.5 or 7.x.

Note: There is no direct migration from 5.1/6.0/6.1 to 7.x, 8.0, or 8.1. Instead, you must first migrate to 6.5 as described in the *Genesys 6.5 Migration Guide*. Once migration to 6.5 is complete, you can migrate directly to Universal Routing 7.x, 8.0, or 8.1.

Preliminary Procedures

Complete these preliminary procedures before starting your migration to the desired release of Universal Routing:

1. Review the following documents:
   - Chapter 2 of this guide.
   - *Genesys Licensing Guide*

2. Install Licensing Manager. Version 9.5 of FLEXlm is used for Genesys 7.6 products. Starting with Management Framework 8.0.2, Genesys 8.x products running on Windows operating system work with FLEXlm version 11.7 and 9.5. However, users of the Windows 2008 operating system **must** use FLEXlm License Manager version 11.7 for platform compatibility. If you are using lmgrd 11.7, lmutil 11.7 is required.
3. Obtain the required licenses. Add license to your license file as specified in *Genesys Licensing Guide*.

> **Note:** If you are migrating to Universal Routing 8.0 or 8.1, you will require a new license file with the 8.0 feature licenses. Universal Routing Server 8.x will not check out 7.x licenses.

4. Migrate Framework as summarized on "Migration and Upgrade Order" on page 702. For information about migrating the layers and components of Management Framework, see "Framework Migration" in this guide.
5. Review "Interoperability Among Universal Routing Components" on page 703."

> **Note:** Universal Routing Server and Interaction Routing Designer must be of the same major release. For example, if migrating to Universal Routing 8.1, both URS 8.1 and IRD 8.1 must be installed. For 8.1.4, it is recommended to have both URS and IRD 8.1.4 releases..

6. Upgrade any other Genesys components that interact with Universal Routing.

   For example, to take advantage of the most advanced multimedia interaction handling features, upgrade to Genesys eServices (called Multimedia in release 8.0.0 and before).

Migration Procedure

> **Note:** Genesys does not recommend customization of the Configuration Database. However, if you previously customized it (for example, if you added fields or new tables), you must contact Professional Services for help with the migration process. Otherwise, the customization work will be lost during the migration and Genesys cannot guarantee a successful migration.

Once you have completed the Framework migration, follow the procedures below to upgrade Universal Routing.

Note: If you are currently using strategies developed with release 5.x, see step 3 in "Migration and Upgrade Order" on page 702.

Universal Routing Server Upgrade Procedure

This section provides instructions on how to upgrade URS.

Warning!

When upgrading an existing component, you should not create a new `Application` object. Instead, use the existing `Application` object (keeping the original name) and update it by adding the new options available for use with your newly installed executable, removing obsolete options, and, if necessary, adjusting the values for existing options.

Do not create a new `Application` object in Configuration Manager or rename the existing `Application` object

1. Install the releases of Universal Routing Server (URS) and Interaction Routing Designer (IRD) to which you are migrating to different directories on the same computer where the current components are installed.

   If you are using the optional Custom Server or Voice Callback Server components, install those as well, using the same procedure.

   Note: For installation instructions, see the *Universal Routing Deployment Guide* for the applicable release.

2. In Configuration Manager, open the `Properties` dialog box for the `URS Application` object. Starting in 8.0, Genesys Administrator can also be used. Refer to the appropriate version of *Framework Genesys Administrator Help* for more information.

   Note: To view the `Annex` tab in the `Properties` dialog box, select `Options` from the `View` menu. On the `General` tab of the `Options` dialog box, select the `Show Annex tab in object properties` check box. Click `OK` to close the dialog box.

3. From the `Options` tab, export the current configuration options to a configuration file.

   Note: This file can also be used for rollback purposes if the migration fails. See "Universal Routing Server Rollback Instructions" on page 774 for more information.

4. Open the file in a text editor and compare the list of options in Table 133, "Configuration Option Changes from 6.5 to 8.1," on page 743 with those in the text file to see if any option is obsolete or replaced in the new release.
5. Based on the comparison, add any new options to the Options tab of the appropriate Application object. Also, remove obsolete options, and, if necessary, adjust the values for existing options. Do not make any modifications to the text file created in Step 3.
6. Verify on the `Connections` tab that the proper connections are still in place for URS. See the *Universal Routing Deployment Guide* for the relevant release for information on connections.
7. If necessary, change the settings in the remaining tabs of the Properties dialog box.
8. Click `OK` to save the changes and close the dialog box.

Universal Routing Server Rollback Instructions

If you experience problems upgrading URS, you can return to your existing previous URS configuration by doing the following:

1. In Configuration Manager, open the `Properties` dialog box for the `URS Application` object.
2. On the `Options` tab, click the `Import from Configurations File` icon and locate the configuration file you exported in Step 3 on page 773.

   This procedure overwrites the options on this tab with those in the configuration file.
3. If you changed settings on other tabs, return them to their previous settings.
4. Click `OK` to save the changes and close the dialog box.

Interaction Routing Designer Upgrade Procedures

1. Upgrading Interaction Routing Designer requires only that you configure and install the latest release (including the necessary connections).

   Note: For more information see the *Universal Routing Deployment Guide* for the release to which you are migrating.

2. Optional. To use the new features and enhanced capabilities of the version of Universal Routing to which you are migrating, open your existing strategies in the updated version of IRD and edit them to use the new features and capabilities described in Table 135 on page 763 and in the Interaction Routing Designer section of Table 124 on page 711 (for 8.0 or

8.1) and Table 125 on page 714 (for 7.6). Also, refer back to "Routing Strategy Compatibility with Framework" on page 736 for additional information.

3. Make sure each `Person` object has an assigned `Access Group`. Starting with the 7.6 release, IRD implemented a new security enhancement. In order to use IRD, each `Person` object must have an `Access Group` assigned in the `Member of` tab of the `Person Properties` dialog box. Configuration Manager displays a warning message if you attempt to save a new `Person` object without assigning an `Access Group`. Any user without an assigned `Access Group` cannot open IRD.
4. Starting with the 7.6 release, the security section containing the `inactivity-timeout` option (see page 723) is presented by default in the `Application Template`. If you are migrating from an old template, then you must manually create the security section in the IRD `Application` object. Then define this option in that section.
5. Optional. Starting with 7.6, IRD contains new `Solution Export` and `Solution Import` views, which provide extended import/export functionality.
   - For a high level overview, see the Migrating Strategies and Other Objects section in Chapter 1 of the *Universal Routing Reference Manual* for the relevant release.
   - For step-by-step instructions on using these views, consult the *Universal Routing Interaction Routing Designer Help* for the relevant release.
6. The IRD installation process enables you to configure one or more security banner messages. Users can accept or reject these messages, which can be configured to display every time they log into IRD (as well as other Genesys applications) or on a one-time basis. Decide whether you wish to configure such a message (or messages) and, if so, the content of those messages. For more information on this feature, see the chapter on configuring with the Wizard in the *Universal Routing Deployment Guide* for the release to which you are migrating.

Migration of Universal Routing from 5.1, 6.0, 6.1 to 7.x, 8.0, 8.1

There is no direct migration from 5.1, 6.0, or 6.1 to 7.x, 8.0, or 8.1. Instead, you must first migrate to 6.5 as described in the *Genesys 6.5 Migration Guide*.

Part

11 Orchestration Server Migration

The chapter in this section describes the migration process to Orchestration Server 8.1.3 for release 8.1.2 or prior releases. It also discusses component changes and the other Genesys software and Third-party applications that support and enable Orchestration Server functionality.

The information is provided in the following chapter:

- Chapter 38, "Orchestration Server Migration Procedures," on page 779 discusses the preliminary migration procedures and the migration order. Provides information about changes in components, configuration options, functions, and objects in Orchestration Server 8.1.3, and explains the migration procedures.

For detailed descriptions of the new features and capabilities of Orchestration Server, see the following documents on the Genesys Documentation website at http://docs.genesys.com/.

- *Genesys 8.1 Orchestration Server Deployment Guide* (contains ORS 8.1.3 information.)
- *Genesys Orchestration Server Developer's Guide*
- *Cassandra Installation and Configuration Guide*
- *Orchestration Server Release Note*
- In addition, the new features and expanded capabilities are summarized in Chapter 38, "Orchestration Server Migration Procedures," on page 779 of this guide.

Chapter

38 Orchestration Server Migration Procedures

This chapter describes the migration process of Orchestration Server (ORS) from previous releases to the 8.1.3 release. It also discusses component changes, and the other Genesys software that supports and enables routing functionality with Orchestration Server.

This migration chapter assumes that you have read and are familiar with the information in the *Genesys Orchestration Server 8.1 Deployment Guide.*

This chapter contains the following sections:

- Introduction to Orchestration Server Migration, page 780 discusses the preliminary migration procedures and the migration order for Orchestration Server.
- Changes in Orchestration Server, page 782 provides information about changes in features, configuration object, and configuration options in Orchestration Server from release 8.1.2 to 8.1.3.
- Orchestration Server Migration Procedures, page 785 explains the migration procedures from release 8.1.2 to 8.1.3.

Introduction to Orchestration Server Migration

This section discusses the preliminary migration procedures and component compatibility for Orchestration Server 8.1.3. It contains the following sections:

Preliminary Migration Procedures

Preliminary migration procedures include:

- Determine wherever a database or operating system upgrade is needed.

> **Note:** If you need to upgrade your operating system or database, you must do this before migrating your Genesys product. If you need to upgrade your operating system, consult your vendor documentation.

- Examine changes in Orchestration Server (see "New Features in Orchestration Server" on page 782).
- Examine option changes (see"Orchestration Server Configuration Option Changes" on page 783).
- Check the ORS interoperability (see "Interoperability Among Orchestration Server Components" on page 781).

Reference Materials

The following is a list of documentation relevant to the migration of this product. The documentation is available on the Genesys Documentation web site at docs.genesys.com.

- *Genesys Orchestration Server 8.1 Deployment Guide*, which contains both getting-started and deployment information specific to ORS 8.1.3.
- *Genesys Interoperability Guide*
- *Genesys Supported Operating Environment Reference Guide*
- *Genesys Orchestration Server 8.1 Developer's Guide*
- *Cassandra Installation/Configuration Guide*
- *Genesys Orchestration Server 8.1 Release Notes*

Interoperability Among Orchestration Server Components

The term “interoperable” refers to whether it is possible for different versions of Genesys solutions, components, or options to work together compatibly during the migration process.

- Interoperability at the suite-level means combining various versions of Genesys products during the migration process.
- Interoperability at the product level means combining different versions of the components of a particular product, such as Orchestration Server, while migrating them sequentially.
- Interoperability of Orchestration Server components can occur with these restrictions: In order to obtain the full functionality of session failover and Data Center failover, the same version of Orchestration Server must be installed for all nodes within a cluster.

Orchestration Server Component Compatibility

A Genesys Routing Solution 8.1.3 is designed to work with the components in Table 137.

Table 137: Genesys Routing Solution Components

Component	Version	Comments
DB Server	8.1	
Configuration Server	8.1	
Configuration Manager	8.1	
Local Control Agent	8.1.2	
Message Server	8.1	
Solution Control Server	8.1.2	
Solution Control Interface	8.1.2	
Media Control Platform	8.1.7	
SIP-Server	8.1	
Stat Server	8.1	
Orchestration Server	8.1.3	
Universal Routing Server	8.1.3	

Table 137: Genesys Routing Solution Components (Continued)

Component	Version	Comments
Composer	8.1.2	8.1.3 is recommended.
Interaction Server	8.0.2	If working with eServices.

Changes in Orchestration Server

This section provides information about changes in Orchestration Server 8.1.3 in the following topics:

New Features in Orchestration Server

This section contains a brief description of the new features in Genesys Orchestration Server (ORS) 8.1.3 release. For more information, see the *Genesys Orchestration Server 8.1 Deployment Guide* and the *Genesys Orchestration Server Developer's Guide.*

Release 8.1.3

- Starting with release 8.1.3, ORS provides an enhanced high-availability (HA) environment architecture. The enhancement to a high-availability (HA) architecture implies the existence of redundant ORS applications: a primary and a backup (i.e., nodes). If the primary application fails, the backup can take over its operations without significant loss of data or impact to business operations.
- Multiple Data Center architecture. ORS now supports a Data Center architecture where each Data Center is served by a cluster of ORS nodes. ORS supports Data Center failover.
- A single Cassandra instance across multiple Data Centers. The Apache Cassandra open source solution packaged with Genesys Orchestration Solution now supports a single Cassandra instance across multiple Data Centers.
- Support of new version of Cassandra. ORS 8.1.3 supports Apache Cassandra 1.1.x, beginning with Version 1.1.12.
- Enhanced voice interaction action. The <createcall> action with type "predictive" was extended by providing Call Progress Detection (CPD) results for voice interactions in Interaction interface events. The CPD result shows the outcome, either positive (live voice), semi-positive (answering machine, fax or silence), or negative (busy, no answer, etc.) of

an attempt to reach an intended party. This allows ORS to determine the next actions for this interaction, such as redialing at the later time for negative call results or connecting an established outbound call to pre-recorded message instead of an agent for 'answering machine' call result. Refer to the *Genesys Orchestration Server Developer's Guide* for more information.

- Infinite loop prevention. A change has been implemented in ORS behavior called *infinite loop prevention*. This modification prevents ORS from infinite loops between states or from an endless number of times a state is entered as a direct result of a transition element.
- Enhanced multi-site support. Simplification of processing multi-site interactions by separating interactions objects from different sites between different SCXML strategies.

Orchestration Server Configuration Option Changes

Table 138 summarizes the changes to the configuration options specific to Orchestration Server from ORS 8.1.2 to 8.1.3.

Table 138: Orchestration Server Configuration Option Changes

Section Name/Option	Type of Change	Use
cluster/name	removed	No longer needed with new 8.1.3 cluster design.
cluster/super_node	removed	No longer needed with new 8.1.3 cluster design.
orchestration/mcr-pull-by-msn-only	removed	No longer needed with new 8.1.3 cluster design.
orchestration/external-url	added	Used for HTTP redirects.
orchestration/mcr-pull-by-this-node	added	Used for eServices.
orchestration/scxml-log-filter-level	added	Used for log events.

Table 138: Orchestration Server Configuration Option Changes (Continued)

Section Name/Option	Type of Change	Use
orchestration/send-retries	added	Used for resending events.
persistence/cassandra-connect-attempt-timeout	added	Used for Cassandra interoperation.
persistence/cassandra-keyspace-name	added	Used for single Cassandra instance.
persistence/cassandra-max-latency	added	Used for Cassandra interoperation.
persistence/cassandra-schema-version	added	Used for Cassandra interoperation.
persistence/cassandra-strategy-class	added	Used for Cassandra interoperation.
persistence/cassandra-strategy-options	added	Used for Cassandra interoperation.
scxml/max-session-age	added	Prevents sessions from never terminating.
scxml/max-microstep-count	added	Maximum number of microsteps allowed to be taken following the processing of one event.

Table 138: Orchestration Server Configuration Option Changes (Continued)

Section Name/Option	Type of Change	Use
scxml/max-pending-events	added	Maximum number of events allowed to be queued to a session (inclusive of internal, external, delayed and undelivered events).
scxml/max-state-entry-count	added	Maximum number of times that a state may be entered through the life a session.
scxml/process-event-timeout	added	Specifies the maximum time allowed for the processing of the event queue.

Orchestration Server Migration Procedures

This section describes Orchestration Server migration procedures.

Warnings!
- Before preparing for migration, it is important to note that persistence for all sessions, as well as session-to-server information, will be lost during migration.
  To prevent this loss from being an issue, before shutting down the current 8.1.2 ORS deployment, all sessions should be allowed to end.
  For voice, this means stopping calls from entering ORS managed route points.
  For eServices, this means stopping multimedia interactions from entering ORS managed interaction queues.
  When all voice and multimedia sessions have completed, the 8.1.2 environment may be stopped, and migration to 8.1.3 with a new Cassandra deployment may be completed.
- When upgrading an existing component, you should not create a new Application object. Instead, use the existing Application object, keeping the original name.

Follow the steps below:

Procedure:
Orchestration Server Migration Procedures

Start of procedure

1. Export current configuration options to a configuration file.
   a. In Configuration Manager, open the `Properties` dialog box for the ORS Application object.

      Starting in ORS 8.0, Genesys Administrator can also be used for configuration. Refer to the *Genesys Framework 8.1 Genesys Administrator Help* for more information.

   b. From the `Options` tab, export the current configuration options to a configuration file.

      This new configuration file can also be used for rollback purposes, if needed. See “Orchestration Server, Rolling Back the Installation” on page 790 for more information.
2. Delete options not used in ORS 8.1.3.
   a. Delete option `orchestration/mcr-pull-by-msn-only`.
   b. Delete section `cluster` with options `name` and `super_node`.
3. Configure HA.
   a. For each instance of Primary Orchestration Server application, create a Backup application with the same connectivity and configuration settings as its Primary application.

b. In the Primary application, specify ORS Backup with Warm Standby Redundancy type.

4. Configure ORS Cluster.

The next step will be to create a `Transaction` of the type `List`, and create a new section in `List` to represent a single Orchestration cluster. Each of the key/value pairs in that section will link a specific Orchestration application to a Data Center.

In multi-tenant deployment the `Transactions` folder is located under `Tenant: Environment`. In single-tenant deployment the `Transaction` object is configured under the `Tenant: Resources`.

a. In Configuration Manager, in the `Tenant: Environment`, open the `Transactions` folder.

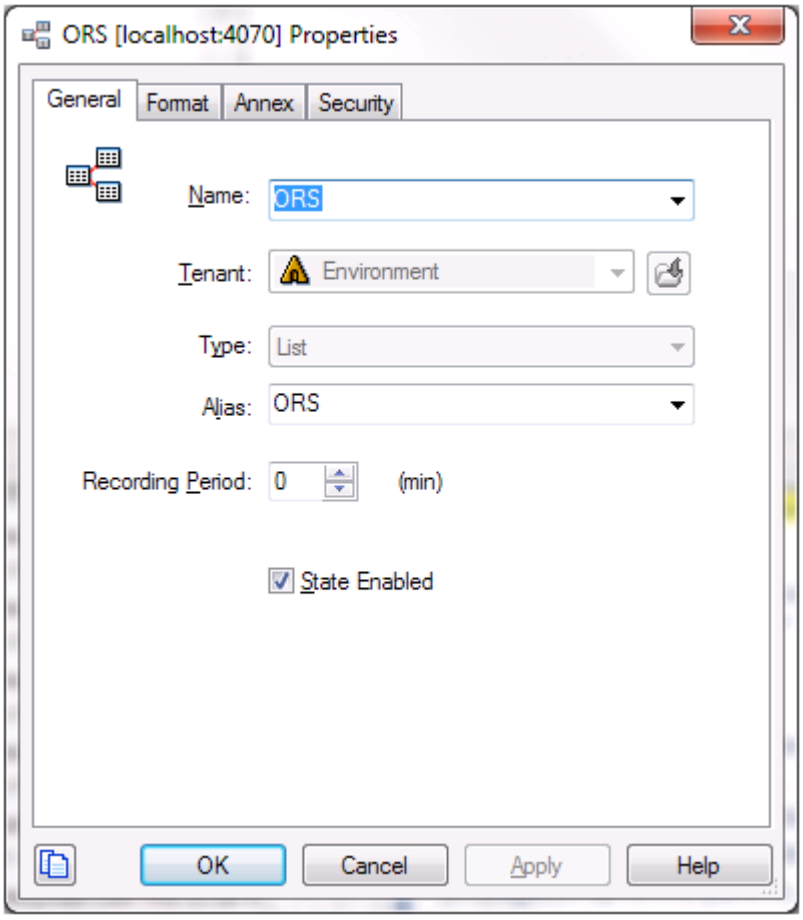

Figure 17: Setting the new transaction `List` object in the ORS `Tenant: Environment`

b. In the `Transactions` window, create a `New --> transaction` from the shortcut menu.

c. On the `General` tab, enter the following information:

- Name: `ORS` (the name of the `Transaction` object must be `ORS` in uppercase).
- Alias: `ORS`
- Type: `List`
- Recording Period: `0`
- State Enabled should be checked.

An example is shown in Figure 17.

d. On the `Annex` tab, create a new section with the name of the cluster:

i. In the `Option Name` field, enter the name of an Orchestration application configured as Primary.

ii. In the `Option Value` field, enter the name of the Data Center the Orchestration Node belongs to.

iii. Repeat Steps **i-ii** for all Orchestration Nodes that belong to this cluster.

e. Repeat Steps a - d for all clusters.

An example is shown in Figure 18.

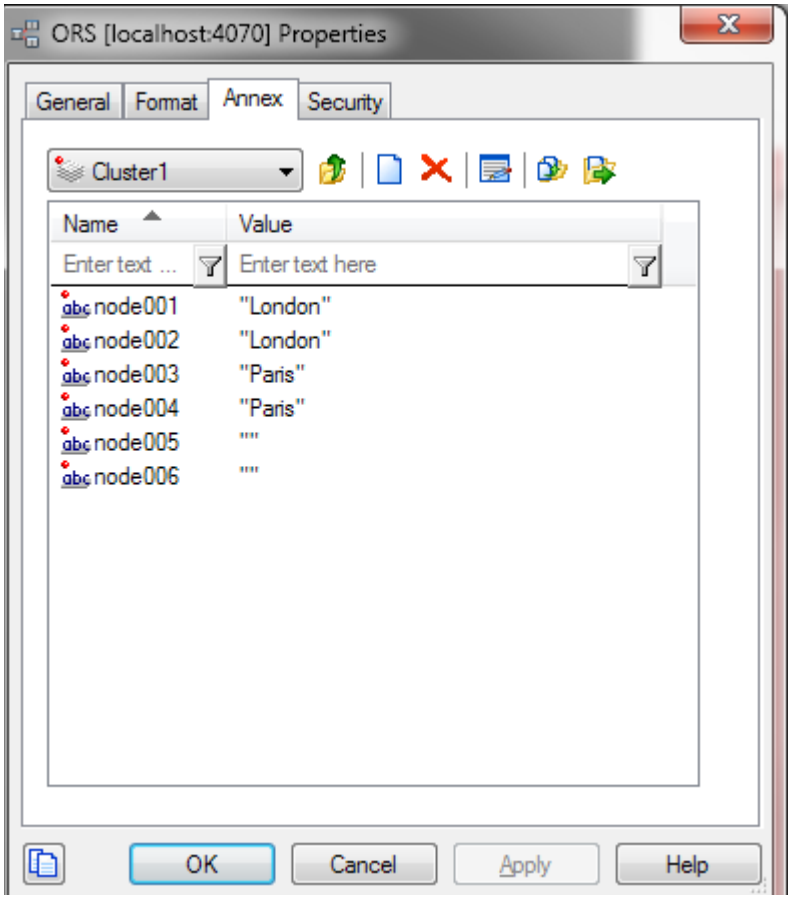

Figure 18: Defining Nodes within a new Orchestration Server Cluster

Only ORS applications configured as Primary should be listed in an ORS cluster.

In the example in Figure 18, `Cluster1` consists of six node pairs presented by Primary instances of Orchestration Servers:

`node001` and `node002`, which are linked to Data Center `London`.

`node003` and `node004`, which are linked to Data Center `Paris`.

`node005` and `node006`, which are linked to a "nameless" Data Center.

When a Data Center value is left empty, the nodes default to a "nameless" Data Center.

It is recommended to have at least two node pairs in each Data Center.

In ORS 8.1.3, work allocation happens automatically, based on the configuration of the cluster described above.

5. Install Apache Cassandra.

   ORS 8.1.3 requires Apache Cassandra 1.1.x beginning with version 1.1.12. For information on installation and configuration for Cassandra, see the *Cassandra Installation/Configuration Guide*.

6. Configure ORS persistence.

   Set the new Cassandra configuration options in Orchestration Server 8.1.3 `persistence` section.

   - `cassandra-keyspace-name`: Specify the name of Cassandra keyspace.
   - `cassandra-schema-version`: Enter the Cassandra schema version.
   - `cassandra-strategy-class`: Set to `SimpleStrategy` if Cassandra is deployed as a single cluster. Set to `NetworkTopologyStrategy` in the case of Data Centers Cassandra cluster deployment.
   - `cassandra-strategy-options`: Set the replication factor for a given keyspace.

   Note: Starting with 8.1.3 Orchestration Server, connection with Cassandra is not mandatory if you do not want to use persistence storage in your deployment.

7. Configure the ORS application to work with multimedia interactions (if needed). Set `mcr-pull-by-this-node` option to `true` if application should work with multimedia interactions.
8. Install Orchestration Server 8.1.3.
9. Test your ORS deployment.

End of procedure

Orchestration Server, Rolling Back the Installation

Procedure:
Rollback the Installation

Prerequisites

- Use this procedure ONLY if you need to restore your previous ORS configuration.

Start of procedure

If you experience problems upgrading ORS, you can return to your existing previous ORS configuration by doing the following:

1. In Configuration Manager, open the `Properties` dialog box for the ORS Application object.
2. On the `Options` tab, click the `Import from Configurations File` icon and locate the configuration file you exported in Step 1./ Step b on page 786. This procedure overwrites the options on this tab with those in the configuration file.
3. If you changed settings on other tabs, return them to their previous settings.

End of procedure

Genesys

Part

12 Voice Callback Migration

The chapters in this section describe the migration process for release 6.5, 7.0, and 7.1 of Voice Callback. They also discuss component changes and the other Genesys software that supports and enables Voice Callback 7.1 functionality. The information is divided into the following chapters:

- Chapter 39, “Introduction to Voice Callback Migration,” on page 793 provides the procedures for migrating Voice Callback from releases 6.5 and 7.0 to release 7.1.
- Chapter 40, “Voice Callback Migration Procedures,” on page 799 discusses changes (additions, deletions, and modifications) in the product that specifically need to be addressed during the migration process.
- Chapter 41, “Changes in Voice Callback 7.1,” on page 805 discusses the preliminary migration procedures and the migration order for Voice Callback 7.1.

Chapter

39 Introduction to Voice Callback Migration

This chapter discusses the preliminary migration procedures and the migration order for Voice Callback 7.1.

There are three main sections in this chapter:

Preliminary Migration Procedures

Follow these procedures before migrating to Voice Callback 7.1.

Database and Operating System Upgrade

Before migration, you might need to upgrade the operating system and/or database used by Voice Callback 7.1. To determine whether you need to perform these upgrades, go to the Genesys Documentation website and consult the *Genesys Supported Operating Environment Reference Guide*.

To check support information on the Genesys Technical Support website: go to `http://genesys.com/support`.

> **Note:** If you need to upgrade your operating system and/or database, consult your vendor documentation. If you need help in performing upgrades, contact Genesys Professional Services.

Preliminary Migration Procedures

The migration process includes these preliminary procedures for Voice Callback 7.1:

1. Review Chapter 2 of this guide: "Overview of Migration."
2. Examine the order in which the Genesys software required for Voice Callback 7.1 should be upgraded. See "Order of Migration for 7.1" on page 795.
3. Examine the component changes for Voice Callback 7.1 in section "Component Changes for Voice Callback" on page 806 in Chapter 51.

   You might also want to look at "Changes to Configuration Options for Voice Callback 7.0 and 7.1" on page 807 in Chapter 51.

   Note: Please note that these tables only discuss changes that directly affect the migration of this product. For complete information about "What's New in This Release" of Voice Callback and how the 7.1 version functions, please see *Voice Callback 7.1 Deployment Guide.* For a complete list of documentation relevant to the migration of this product, see "Reference Materials" on page 795.

4. Review the licensing requirements for Voice Callback 7.1. See Chapter 3 in this guide: "Licensing Requirements." Also consult *Voice Callback 7.1 Deployment Guide* for specific licensing requirements for VCB.

   Licensing is no longer based on the number of instances of Universal Callback Server, but is based on the number of callback requests that are in process and that were submitted during a one hour sliding time window.

   Note: VCB reports a license violation when excessive callbacks are submitted, but does not stop normal operation. Instead, it rejects callback requests with specific error codes. Also, the ability to request a license in advance of actual callback submission is implemented.

5. Check the interoperability of the components of Voice Callback 7.1 during the upgrade procedures. See "Interoperability Among Voice Callback Components" on page 797.
6. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.
7. Review other issues pertaining to the migration of Voice Callback to version 7.1. See "Additional Information about Migration" on page 798.

Reference Materials

- *Genesys Licensing Guide*
- *Voice Callback 7.1 Deployment Guide*
- *Voice Callback 7.1 Reference Manual*
- *Genesys Interoperability Guide*
- *Genesys Supported Operating Environment Reference Guide*

Order of Migration for 7.1

The section presents information that is specific to the applications and components that enable or support Voice Callback.

Multi-Site/ Single-Site and Multi-Tenant Migration

Common interoperability rules apply for Voice Callback components. If the components are compatible, there is no difference between single-site and multi-site configuration. It is possible to migrate all sites or all tenants simultaneously. It is also possible to migrate separate sites independently.

Migration and Upgrade Order

Migrate or upgrade the application components of Voice Callback, the other enabling software, and relevant data for this solution in the following order:

Note: See procedures detailing this order in "Migration Procedures" on page 800.

1. Install Licensing Manager.

   Refer to these documents for information about licensing requirements and for instructions on installing the license(s):
   - *Genesys Licensing Guide:*
     - Requirements: see "Universal Callback Server," and "CPD Server"
     - Installation: see "Installing License Manager"
   - *VCB 7.1 Reference Manual*:
     - "Configuration Dependencies": See `num-of-licenses` and `license-file`
2. Migrate Management Framework.

   Management Framework is the foundation for all Genesys products, solutions, and options. You can migrate to the 7.1 Configuration Layer while still using 6.5 or 7.0 Voice Callback components.

If you want to change DB before Configuration Layer migration, migrate the database, then the data, and run the Configuration Conversion Wizard (CCW).

For information about migrating the layers and components of Management Framework, see "Management Framework Migration" in this guide.

3. Upgrade other prerequisite Genesys components.

   When upgrading many components, determine if the first component you upgrade to version 7.1 is backward compatible with the 6.5 or 7.0 components that have not been upgraded, yet. See "Interoperability Among Voice Callback Components" on page 797. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.

4. Update Contact Center configuration (for example, Place Groups, Agent Groups, DNs).

5. Import Solution template for URS.

6. Import Application template.

   The Application templates are accessible from the Configuration Manager of Framework:

   `Configuration > Environment > Applications Templates>`

   The *Voice Callback 7.1 Deployment Guide*, section entitled "Importing Application Templates," provides instructions for importing an application template.

7. Create and configure the Application Object for the components of Voice Callback 7.1. Or reconfigure the existing 6.5 or 7.0 application object.

   Note: Check the type of Universal Callback Server Application object. If it is "Outbound Contact Server," a new application object has to be created, type `Universal Callback Server`.

   When you create an Application object for CPD Server, the main configuration options are defined with their default values. If you choose to change these values, refer to these sections in *Voice Callback 7.1 Deployment Guide*.

   - "Configuring the Universal Callback Server Application Object"
   - "Configuring CPD Server Application Object"

8. Configure component objects.

9. Migrate data.

   This includes solution-specific data such as Calling Lists and Black List data.

10. Migrate Scripts.
11. Migrate routing strategies.
12. Upgrade Agent Desktop.

    Refer to Agent Desktop documentation for information about upgrading this application.
13. Upgrade reporting templates for Voice Callback 7.1.
    For information about importing Reporting templates for Voice Callback 7.1, see:
    - *Reporting 7 CCPulse+ Help,* "Using the Import/Export Utility"
    - *Reporting 7 Data Modeling Assistant Help*, "Importing and Exporting Templates"
    - *Reporting Technical Reference Guide for the Genesys 7.1 Release*

Interoperability Among Voice Callback Components

The term *interoperable* means that different versions of Genesys solutions, components, or options can work together compatibly during the migration process.

Interoperability of Genesys products can occur at two levels of migration:

- **Interoperability at the suite-level** means combining different versions of solutions and options during the migration process.

14. **Example**: You can migrate to the Configuration Management Layer of Framework 7.1 while still using 6.5 or 7.0 components. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.

- **Interoperability at the solution-specific level** means combining different versions of the components of a particular solution while upgrading them sequentially during the migration process.

  The mixture of components may include executables, applications, routing strategies, scripts, and data that comprise a particular solution.

  As you upgrade each of the components in sequence, you will need to know if it is backward-compatible with the other components of Voice Callback.

  Example: If you have four components to upgrade, determine if the first component you upgrade to version 7.x will be backward compatible with the three 6.x components that are not upgraded yet.

The following section provides the answer to this important question.

Compatibility Among Components of Voice Callback

Voice Callback 7.1 includes these components:

- Universal Callback Server 7.1
- CPD Server 7.0 (optional)
- CPD Proxy (optional)
- Web API Server 7.0
- Universal Contact Server 7.0 (optional)

Universal Callback Server

Universal Callback Server 7.1 operates with these versions of the other components of Voice Callback:

- CPD Server 7.0
- CPD Proxy 7.0

CPD

CPD 7.0 operates with these versions of the other components of Voice Callback.

- Universal Callback Server 7.1

> **Note:** CPD Server 7.0 is compatible with Universal Callback Server 7.0 but not with earlier versions of Universal Callback Server.

CPD Proxy

CPD Proxy 7.0 operates with these versions of the other components of Voice Callback.

- Multiple CPD 7.0

Web API Server

Web API Server 7.0 operates with these versions of other components of Voice Callback.

- Universal Callback Server 7.1

Universal Contact Server

Universal Contact Server 7.0 operates with these versions of other components of Voice Callback.

- Universal Callback Server 7.1

Additional Information about Migration

- Review suite-level migration issues.
- For an overview about migration issues, please see Chapter 1, “Migration Roadmap,” on page 41.

Chapter

40 Voice Callback Migration Procedures

This chapter provides the procedures for migrating Voice Callback from releases 6.5 and 7.0 to release 7.1.

This chapter contains:

Migration from 6.5 and 7.0 to 7.1

This chapter discusses the migration procedures for Voice Callback and other Genesys software that enables and supports it. It includes step-by-step procedures for configuring and installing the Universal Callback Server (UCS), CPD Server (optional), CPD Proxy (optional), and configuration objects that are required to support Voice Callback.

Preliminary Procedures

Complete these preliminary procedures before starting your migration of Voice Callback:

Licensing

1. Install Licensing Manager.

> **Note:** You need the license files for 7.1 components.

Before migrating, note this change in the licensing schema of the Universal Callback Server (UCS): UCS 6.5 is licensed "per instance"; that is, each running instance of the server requires a license. Versions 7.0 and 7.1 are licensed "per amount of callback requests in a sliding window"; that is, the number of licenses required depends on the volume of callback requests that Universal Callback Server processes.

Licensing is addressed in these documents:

- *Genesys Licensing Guide*
- Chapter 2, "Licensing Migration," on page 47 of this guide
- *Voice Callback 7.1 Deployment Guide*, chapter on "Licensing"
- *Voice Callback 7.1 Reference Guide,* chapter on "Licensing" for configuration dependencies and options.

Framework

2. Migrate Framework from 6.5 or 7.0 to 7.1 (except for Stat Server with version 7.0.300.08 and up).

   All Genesys products are built on Genesys Framework. As an option of Universal Routing, Voice Callback requires the Framework components that are specified in the *Universal Routing 7 Deployment Guide*. For information about migrating the layers and components of Management Framework, see See "Framework Migration" on page 59 in this guide.

Migration Procedures

Follow these migration procedures:

1. Update the Contact Center configurations specific to VCB.
   - DNs (Routing Points, Virtual Routing Points, Virtual Queues, Agent's DNs)

Note: See *Voice Callback 7.1 Reference Manual*.

Universal Routing

2. Upgrade Universal Routing

   Enterprise Routing (ER) or Network Routing (NR) is required for VCB. The Universal Routing Server, which enables both ER and NR, requires additional configuration for Voice Callback.

Note: Review "Interoperability Among Voice Callback Components" on page 797 before you upgrade the VCB-specific components as shown in the following steps.

Universal Callback Server

3. Import the Application Template for the Universal Callback Server.

   Universal Callback Server is the primary component of Voice Callback. See *Voice Callback 7.1 Deployment Guide*, section entitled "Importing Application Templates."

4. Create and configure the Application Object for Universal Callback Server 7.1.

   OR

   Reconfigure existing Application Object for Universal Callback Server 7.1.

Note: If objects and components have been customized, contact Professional Services for help.

5. Install Universal Callback Server.

   For detailed instructions, see *Voice Callback 7.1 Deployment Guide*, sections called "Installing Universal Callback Server on Windows" and "Installing Universal Callback Server on UNIX"

Note: For proper functionality, installation must be made into a new separate directory.

Rollback Procedures: If the upgrade of Universal Callback Server 7.1 fails, simply uninstall Universal Callback Server 7.1.

CPD Server (optional)

6. Import Application template for CPD Server 7.0.

   A CPD Server is optional. If you want call progress detection (CPD) in the auto-dial mode, then you need the CPD Server.

7. Create and configure the Application Object for CPD Server 7.0.

   For assistance with manual configurations, refer to the *Voice Callback 7.1 Deployment Guide*, chapter on "Configuring CPD Server Application Object."

8. Install CPD Server.

   See *Voice Callback 7.1 Deployment Guide*, section called "Installing CPD Server on Windows."

Note: For proper functionality, installation must be made into a new separate directory.

Rollback Procedures: If the upgrade of CPD Server 7.0 fails, simply uninstall CPD Server 7.0.

CPD Proxy 7.0 (Optional)

9. Import the Application template for CPD Proxy 7.0 if you choose to use this component.

   The optional CPD Proxy performs load-balancing by distributing calls among various CPD Servers when the volume of calls is high.

10. Create and configure the Application Object for CPD Proxy 7.0.

    For assistance, refer to the *Voice Callback 7.1 Deployment Guide* on "Configuring CPD Proxy."

11. Install CPD Proxy.

Note: For proper functionality, installation must be made into a new separate directory.

Rollback Procedures: If the import and configuration of CPD Proxy 7.0 fails, simply uninstall CPD Proxy.

Web API Server

12. Internet Contact Suite (ICS) Callback Server 6.5 is replaced with Universal Callback Server 7.1 that uses Genesys 7 Web callback features.

    Although Universal Callback Server functionality differs significantly from that of ICS Callback Server, the way it is configured to process callback requests from the Web remains the same. Universal Callback Server 7.1 supports the sections "WebAPIProcessing" and "WebAPIRouting" which have the same options as those found in ICS Callback Server 6.5.

    See *Multi-Channel Routing Event Media Deployment Guide* for installation and configuration procedures.

Universal Contact Server (optional)

13. VCB 7.1 uses Universal Contact Server for communication history between agents and customers, regardless of callback request origination (Web, IVR, Agent Desktop). ICS Callback Server 6.5 had this functionality in previous releases.

    See *Multi-Channel Routing Event Media Deployment Guide* for installation and configuration procedures.

Other Configuration Objects

14. Configure the new objects for Voice Callback. See *Voice Callback 7.1 Deployment Guide* for details.
    - Database Access Point object(s) for Black List access
    - Table Access object(s) for Black List access
    - Default Routing DNs
    - Statistical Days
    - Statistical Tables
    - Time Zones

Data

15. Migrate data specific to Voice Callback:

    a. Calling List data

> **Note:** The format of the tables where callback processing information is stored did not change between 6.5 and 7.0 and 7.1. Therefore, you can use old tables. If you wish to use new ones, it is recommended that you do not create these new tables in the database since Universal Callback Server 7.1 will create them on first starting. If you have some information stored in your old tables, it is not necessary to copy it to your new tables since at the moment of upgrade there should be no callbacks left for processing. Therefore, old tables will hold only obsolete data.

Black List Table

b. Black List Table

In addition to the calling list, Universal Callback Server 7.1 has another connection to the database for the Black List table. This Black List table is

configured via a separate Table Access Object. For details, refer to section on "Black List Blocking," in the *Voice Callback 7.1 Deployment Guide*.

This is the same situation with the callback processing information tables: Universal Callback Server 7.1 will create the Black List table automatically on first starting. After that, you can populate this table with the phone numbers you want to exclude from callback dialing.

Interactive Voice Response

16. Migrate IVR

To request a callback, an Interactive Voice Response (IVR) could be used, or a Web interface could be used.

Voice Callback can use an Interactive Voice Response (IVR), such as Genesys Voice Portal (GVP), Voice Treatment Option (VTO), or another Genesys-compliant IVR.

VTO is a behind-the-switch IVR. If you want to use another type of IVR, such as an in-front-of the switch IVR, then the IVR Driver and IVR Server are required. The IVR Driver might require configuration for Voice Callback. See IVR Driver documentation for this information.

IVR Scripts

17. Migrate IVR scripts.

For additional information about IVR scripts, see *Voice Callback 7.1 Deployment Guide*:

- Designing IVR Scripts
- Implementation of IVR Script Logic

Routing Strategies

18. Migrate routing strategies

See *Voice Callback 7.1 Deployment Guide*, sections on "Routing Strategy Design Considerations" and "Routing Strategy Logic."

Agent desktop

19. Migrate Agent Desktop.

VCB 7.1 is capable of working without an agent desktop in auto-dial mode; however, an agent desktop such as Genesys Agent Desktop (GAD) significantly increases productivity.

Agent desktops providing preview support for ICS Web callback 6.5 also provide VCB 7.1 preview support.
For agent desktops supporting both VCB 7.1 and ICS 6.5 Web callback, the interface is merged into one: callbacks are supported by the same agent's UI regardless of callback request origin.

Note: Consult Professional Services regarding migration of any and all customized Genesys products.

Chapter

41 Changes in Voice Callback 7.1

This section provides information to upgrade components and configuration options of Voice Callback from release 6.5 and 7.0 to 7.1. This section only discusses changes (additions, deletions, and modifications) in the product that specifically need to be addressed during the migration process.

See *Voice Callback 7.1 Deployment Guide* for a comprehensive list of changes.

There are two sections in this chapter:

Note: Internet Contact Suite (ICS) Callback Server 6.5 is replaced with Universal Callback Server 7.1, which supports a wider range of dialing modes than ICS Callback Server 6.5.
Although Universal Callback Server functionality differs significantly from that of ICS Callback Server, the way it is configured to process callback requests from the Web remains the same. Universal Callback Server 7.1 supports the sections "WebAPIProcessing" and "WebAPIRouting" which have the same options as those found in ICS Callback Server 6.5.
Please refer to *Voice Callback 7.1 Deployment Guide* and *Voice Callback 7.1 Reference Manual* for further information.

Component Changes for Voice Callback

Table 139 shows the component changes for Voice Callback from 6.5 and 7.0 through 7.1.

Table 139: Component Changes from 6.5 to 7.0 and 7.1

Current Component Name	Type of change	Change Occurred in Version #	Details (optional)
Web API Server	New component	7.1	VCB is now capable of handling callback requests coming from the Web. Web API Server is required in order to pass callback-related requests from the Web to VCB Server. (ICS Callback Server 6.5 functionality worked in the same way.) Note: To request a callback IVR could be used, or Web interface could be used.
Universal Contact Server	New component	7.1	Universal Callback Server is capable of storing callback-related communications history in the centralized database that all agents may view. Universal Callback Server uses Universal Contact Server to gain an access to this centralized database. (ICS Callback Server 6.5 functionality worked in the same way.)
CPD Proxy	New component	7.0	A new CPD Proxy, which connects multiple servers, supports call load distribution. The Proxy distributes calls among several CPD Servers when the number of CPD Ports required to service a big Agent Group exceeds the number of ports that a single CPD Server can support. The call load distribution is configurable.

Table 139: Component Changes from 6.5 to 7.0 and 7.1 (Continued)

Current Component Name	Type of change	Change Occurred in Version #	Details (optional)
CPD Server	New dialing mode	7.0	New dialing mode: Agent Reserved Connection.
CPD Server	New functionality	7.0	New functionality: voice and beep-tone announcement for Agent Reserved Connection.
CPD Server	New functionality	7.0	New functionality: voice announcement for Customer Reserved Connection.

For information about all the new features and functions in Voice Callback 7.0, see *Voice Callback 7.1 Deployment Guide*, Chapter 2.

Changes to Configuration Options for Voice Callback 7.0 and 7.1

This section explains the changes to configuration options for the components of Voice Callback 7.0 and 7.01. The options are briefly described in Table 140. Options are discussed in detail in the *Voice Callback 7.1 Reference Manual*. For more information about the options introduced in the 6.5 release, see the *Voice Callback 6.5 Getting Started Guide*.

Table 140: Configuration Option Changes from 6.x to 7.0

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Callback Server	max_proc_interval	New option	7.1	For 6.5 and 7.0 backward compatibility, the value must be set `0`.
Universal Callback Server	num-of-licenses	New option	7.0	Universal Callback Server uses these two options for license control.
Universal Callback Server	license-file	New option	7.0	

Table 140: Configuration Option Changes from 6.x to 7.0 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
CPD Server	out-of-service-attempts	New option	7.0	CPD Server immediately marks a Dialogic port `out-of-service` if the server receives a failure message after a predefined number of attempts to connect to that port. This option sets the number of attempts. See also `out-of-service-timeout` option.
CPD Server	out-of-service-timeout	New option	7.0	Determines how long to wait (in minutes) before using the out-of-service channel again.
CPD Server	destination-busy-timeout	New option	7.0	Prevents CPD Server from waiting indefinitely for the results of call progress detection on a busy signal. This new option specifies the length of time (in milliseconds) that CPD Server will wait for confirmation of the call result from T-Server (`EventDestinationBusy`) after a `Busy call` result from the Dialogic board. When the timeout expires, CPD Server accepts the `busy` call result as correct.
CPD Server	license-file	New option	7.0	Specifies the license address.
CPD Server	num-occ-port-licenses	New option	7.0	Specifies the number of licenses that CPD checks out initially.
CPD Server	number-userdata-pairs-to-print	Option removed	7.0	Specified the number of pairs in UserData to print.

Table 140: Configuration Option Changes from 6.x to 7.0 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
CPD Server	Tsrelease	Option removed	7.0	Previously, the value of this option indicated whether to send a release request to T-Server (`tsrelease = yes`) or not to send a release request to T-Server (`tsrelease = no`). CPD Server 7.0 queries the DN to find out if any calls remain active.
CPD Server	max-number-ports-to-record	New option	6.5.2	CPD Server is able to create two voice files for outbound calls that it dials: File 1 contains the line recording for the CPD stage. File 2 records the conversation between an agent and the called party if the call result is `answer` (ASM mode only). The `max-number-ports-to-record` option specifies the maximum number of agent ports on which to record the voice files at the same time. See these options: `cpd-file-name-prefix` and `conversation-file-name-prefix`
CPD Server	cpd-file-name-prefix	New option	6.5.2	The value of this option is a prefix that identifies voice File 1 (Call Result). The default is `cpd_`
CPD Server	tsclear	New option	6.5.2	This option controls the way a call is released. If `tsclear = yes`, RequestClearCall is issued to release an active call.

Table 140: Configuration Option Changes from 6.x to 7.0 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
CPD Server	line-type	Value changed	6.5.2	A new value `dm3` for the `line-type` option replaced the previous value `dm3-isdn`.
Universal Callback Server	auto_dial_mode	New option	7.0	Default value: `dial_ahead`. Valid values: `dial_ahead`, `engaging`. Note: `dial_ahead` means Customer Reserved Connection; `engaging` means Agent Reserved Connection.
Universal Callback Server	agent_announcement_type	New option	7.0	Option used for announcement for Agent Reserved Connection. If not specified, UCS does not request CPD Server to play a standard announce- ment to the Agent. This option does not affect the situation when the announce- ment is recorded by IVR. Valid value: `tone` or `voice`.
Universal Callback Server	agent_announcement_prefix	New option	7.0	Option used for announcement for Agent Reserved Connection. Valid value: string that contains full path to voice file.

Table 140: Configuration Option Changes from 6.x to 7.0 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Callback Server	agent_announcement_data	New option 7	.0	Option used for announcement for Agent Reserved Connection. This option does not affect the scenario when announcement is recorded by IVR. Valid value: string that contains beep tone parameters or full path to voice file; depends on announcement type specified in the option `agent_announcement_type`.
Universal Callback Server	agent_announcement_suffix	New option	7.0	Option used for announcement for Agent Reserved Connection. Valid value: string what contains full path to voice file.
Universal Callback Server	delete_ivr_announce_file	New option	7.0	Option used for Recorded Announcement. If not specified or set to `false`, UCS does not delete VOX files.recorded by IVR. Default value: `false/no`. Valid value: `true, false, yes, no`.
Universal Callback Server	cust_announcement_prefix	New option	7.0	Option used for Customer Reserved Connection. Valid value: string what contains full path to voice file.

Table 140: Configuration Option Changes from 6.x to 7.0 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Callback Server	cust_announcement_data	New option	7.0	Option used for Customer Reserved Connection. Valid value: string that contains full path to voice file.
Universal Callback Server	cust_announcement_suffix	New option	7.0	Option used for Customer Reserved Connection. Valid value: string that contains full path to voice file.
Universal Callback Server	call_default_routing_timeout	New option	7.0	If not specified or `0`, UCS does not perform default routing at all. Valid value: number of seconds.
Universal Callback Server	stat_type	New option	7.0	UCS uses this Type to obtain EWT for Queue that is used in scheduled Callbacks processing. If not specified anywhere, UCS uses `AverDistribCallTime`. Valid values: any Statistical Type configured on corresponding StatServer. This option could be set for Virtual Queue.
Universal Callback Server	stat_filter	New option	7.0	UCS uses this Filter to obtain EWT for Queue that is used in scheduled Callbacks processing. Valid values: any Name of Filter configured on corresponding StatServer. This option could be set for Virtual Queue.

Table 140: Configuration Option Changes from 6.x to 7.0 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Callback Server	stat_timeprofile	New option	7.0	If not specified anywhere, UCS does not specify it in StatServer API calls. Valid values: any Name of TimeProfile configured on corresponding StatServer. This option could be set for Virtual Queue.
Universal Callback Server	stat_timerange	New option	7.0	If not specified anywhere, UCS does not specify TimeRange in StatServer API calls. Valid values: any Name of TimeRange configured on corresponding StatServer. This option could be set for Virtual Queue.
Universal Callback Server	stat_server	New option	7.0	If value is empty or option is not defined, UCS opens Statistics through first StatServer in this Connections. Valid values: any StatServer Application Name existing in Configuration and included in UCS Connections. This option could be set for Virtual Queue.

Table 140: Configuration Option Changes from 6.x to 7.0 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Callback Server	hide_private_data	New option	7.1	Application-level option that allows UCS to show or hide attached data in the log output. If this option is set to `yes` or not present, UCS does not show UserData from any telephony event in log output. Default value: `yes` or `true` Valid values: `true, false, yes, no`
Universal Callback Server	check_ewt	New option	7.0	If not specified or set to `false`, UCS does not take EWT into consideration during callback processing. Default value: `false/no.` Valid value: `true, false, yes, no.`
Universal Callback Server	dnc_refresh_interval	New option	7.0	UCS uses this interval to check periodically the Black List Table and update internal hash table in accordance with changes what have been made in table after last check. Default value: `60` Valid value: interval in minutes.
Universal Callback Server	callback_processed	New option	7.0	Default value: `true or yes.` Valid values: `true, false, yes, no.`

Table 140: Configuration Option Changes from 6.x to 7.0 (Continued)

Component Name	Option/Section Name	Type of Change	Change Occurred in Version #	Details (optional)
Universal Callback Server	call_progress_orig_dn	New option	7.0	Valid value: `<DN name>` Points to a DN which should be used as Call Progress Origination DN in auto dial mode when `RequestMakePredictiveCall` is used.
Universal Callback Server	call_progress_trans_dn	New option	7.0	Valid value: <DN name> Points to a DN which should be used as Call Progress Transfer DN in auto dial mode when `RequestMakePredictiveCall` is used.

Part

13 Composer Migration

The chapters in this Part describe the migration process for Composer. They also discuss component changes and the other Genesys software that supports and enables Composer functionality.

The information is divided into the following chapters:

- Chapter 42, "Introduction to Composer Migration," on page 819 discusses the preliminary migration procedures and the migration order for Composer.
- Chapter 43, "Migration Order for Composer 8.1," on page 823 provides information about changes in components, configuration options, functions, objects, and statistics used in Composer from release 8.0 to 8.1.
- Chapter 44, "Changes in Composer Through 8.1," on page 831 explains the migration procedures for releases 8.0 to 8.1.

Additional References:

- *Composer 8.1 Deployment Guide*
- *Composer 8.1 Routing Applications User's Guide*
- *Orchestration Server 8.1 Deployment Guide*
- *Composer 8.1 Help* (accessible inside Composer's Eclipse Help System)
- The Orchestration Developer's Guide, which contains the necessary resources to develop Orchestration applications.
- The Composer Documentation, which details the IRD to Composer Migration process.

If creating voice applications that execute on the Genesys Voice Platform, you may to consult the following:

- *Genesys Voice Platform 8.1 Deployment Guide*
- *Genesys Voice Platform 8.1 CCXML Reference Manual*
- *Genesys Voice Platform 8.1 User's Guide*
- *Genesys Voice Platform 8.1 Application Migration Guide*

- *Voice Platform Solution 8.1 Integration Guide*
- *Genesys Voice Platform 8.1 Configuration Options Reference*
- *Genesys Voice Platform 8.1 Troubleshooting Guide*
- *Genesys Voice Platform 8.1 Legacy Genesys VoiceXML 2.1 Reference Manual*

Chapter

42 Introduction to Composer Migration

It is important to differentiate between two types of Composer migration:

1. Migrating voice routing strategies created with Universal Routing's Interaction Routing Designer into Composer. For more information, see "Migrating IRD Strategies into Composer" on page 820.
2. "Migrating" voice application callflow projects/diagrams and routing application projects/diagrams created in previous versions of Composer to take advantage of the new features/functionality in Composer 8.1. For more information, see "Upgrading Projects/Diagrams" on page 821.

> **Note:** The Composer software and documentation accurately calls this an "upgrade" process and not a "migration" process since it focuses solely on diagrams and not migrating the Composer software. After selecting the project/diagram within the Composer GUI, upgrading a project/diagram is a relatively simple procedure consisting of a single dialog box and a few mouse clicks.

The remaining Composer chapters follow the general *Genesys Migration Guide* format by including the following sections:

Migrating IRD Strategies into Composer

Starting with Composer 8.1, you can migrate strategies for routing voice interactions created with Interaction Routing Designer 8.0+ into Composer Projects as workflow diagrams. From these workflow diagrams, Composer generates SCXML documents, which can run on the Orchestration Platform (the combination of Universal Routing Server and Genesys Orchestration Server).

Note: The Orchestration Server (ORS) is responsible for executing orchestration logic (SCXML), which is provided by an application server (such as an application server hosting an SCXML-based routing application created in Composer). The responsibility of the Universal Routing Server (URS) within the Orchestration Platform is to provide a necessary service to Orchestration Server, to support Routing functions.

Summary of IRD to Composer Migration Process

A very high-level summary is presented below. For detailed instructions, see the `IRD to omposer Documentation`.

1. Your strategies must be Interaction Routing Designer (IRD) 8.0+ strategies before starting this process. For information on migrating IRD strategies, refer to Chapter 1 in the *Universal Routing 81. Reference Manual*.
2. Use IRD to export the strategy as an XML file.
3. Continue in Composer by using the migration wizard. Browse for the XML file(s) to import, select the routing Project, and click the button to finish. The XML files are translated into Composer's own internal intermediate XML format.
4. View the imported strategy as a workflow diagram in Composer's workflow view. The migration process attempts to re-create the IRD strategy so that it can run on the Orchestration platform.
5. A dialog box appears asking if you wish to see the migration report. The report indicates the status of objects migrated and indicates if any manual steps are required. Click `Yes`. The `Reports` folder in the Project Explorer contains the migration report.
6. After making any necessary changes to the workflow diagram, validate the workflow to check that objects exist in the Configuration Database. In the case of errors, the Problems view becomes visible and error markers are put on the blocks that contain errors.
7. After successful validation, click the `Generate Code` button on the main toolbar to create a properly-formatted SCXML file from the workflow diagram. Static pages (pure SCXML code) are generated in the `src-gen` folder of the Composer Project.

8. Consult the migration report, which indicates the status of objects migrated and indicates if any manual steps are required.

Important Note About Migrated Strategies

Composer 8.1 is the first release to introduce IRD to Composer Migration functionality. As you use the migration wizard and migration report, you will find a good one-to-one mapping exists between IRD objects and Composer blocks for routing voice interactions. A good mapping also exists between frequently used IRD voice routing functions and functions/properties made available within Composer's Expression Builder. However, it is important to understand that a workflow generated in Composer as a result of migration is an Orchestration approximation of the IRD strategy.

In almost all cases, the migration report will list items that you must manually complete before the workflow can be considered fit to run on the Orchestration platform. After migration, those IRD constructs that have an equivalent mapping in Orchestration can be expected to work reasonably well with minimal manual changes. However, certain IRD constructs will require more attention as they may be implemented very differently for the Orchestration platform. Still others, such as script variables, are simply not supported by Orchestration and therefore the migration report will instruct you to find a manual alternative and lists links to helpful topics where available. This wiki also contains recommended alternate approaches for IRD constructs that are not supported in Orchestration.

In general, the migration process is expected to eliminate the majority of the manual work required to redraw an IRD diagram into a Composer workflow. Careful review, editing, and testing post-migration will be key to making the workflow usable. Due to differences in implementation, Genesys strongly encourages customers to validate the business logic exposed within the migrated items to ensure they are correct prior to deploying them to a production environment.

Upgrading Projects/Diagrams

After installing Composer 8.1, if you want to use previously created projects and diagrams, an upgrade is required. You cannot simply copy existing diagrams into a new 8.1 Composer project.

There are two levels of upgrade:

1. Project-Level Upgrade
2. Diagram-Level Upgrade

A Project-level upgrade will automatically apply a Diagram-level upgrade to all the diagram files directly residing within the diagram (`Callflows`, `Workflows`, or `Interaction Processes`) folder.

Callflow Diagram Upgrades

Callflow diagrams are those associated with Voice applications created in Composer for Genesys Voice Platform (GVP) 8.1—a software suite that unifies voice and web technologies to provide a complete solution for customer self-service or assisted service. You can upgrade voice application projects/callflow diagrams created in Composer 8.0.4, 8.1.0, 8.1.01, 8.1.1, and 8.1.2.

Note: Version 8.0.2 and 8.0.3 of Composer are no longer supported for direct upgrades. To upgrade from these versions, first upgrade to a supported version, for example 8.1.0, then upgrade to the latest from 8.1.0.

Consult the Post Installation Configuration chapter in the *Composer 8.1 Deployment Guide* for step-by-step instructions.

Workflow Diagram Upgrades

While upgrading workflow diagrams created in Composer 8.0.4, 8.1.0, 8.1.01, 8.1.1, or 8.1.2 is supported, some previously created workflow diagrams cannot be upgraded. Here's why:

- Composer 8.0.2 began support for the creation and testing of SCXML-based workflows for inbound voice use cases. Upgrading workflow diagrams created in the 8.0.2 release of Composer, which introduced this new feature, is therefore not supported.
- Composer 8.0.3 began support for the Context Services option of the Universal Contact Server Database and the processing of multimedia interactions. Release 8.1.2 also introduced interaction process diagrams, which are roughly the equivalent of IRD business processes. Upgrading workflow diagrams created in the 8.0.3 release of Composer, which introduced these new features, is therefore not supported.

Consult the Post Installation Configuration chapter in the Composer Help.

Chapter

43 Migration Order for Composer 8.1

This chapter discusses some preliminary migration procedures and the migration order for Composer 8.1. There are three main sections in this chapter:

Preliminary Migration Procedures

The migration process includes the following preliminary procedures:

1. Review the "Migration Roadmap" chapter of this guide.
2. Examine the order in which the Genesys software that is required for Composer 8.1 should be upgraded. See "Order of Migration" on page 824.
3. Examine the component changes for Composer. See "Component Changes for Composer" on page 832.
4. Examine the new features in each release starting with "Changes in Composer Release 8.1" on page 833.
5. Review the licensing requirements. Although Composer has no licensing requirements, there may be licensing requirements for associated products in the deployment, such as third-party speech engines or other Genesys components. For more information about Genesys licensing requirements, see the information about licensing migration in the "Licensing Migration" chapter of this guide.

6. Ensure that you have the required permissions to execute commands for GVP and Universal Routing and Orchestration components in Genesys Administrator.

Reference Materials

If creating routing applications that execute on the Orchestration Platform, you may wish to consult the following:

- *Composer 8.1 Deployment Guide*
- *Composer 8.1 Routing Applications User's Guide*
- *Orchestration Server 8.1 Deployment Guide*
- The Composer 8.1 Help
- The IRD to Composer Documentation, which details the IRD to Composer Migration process.
- The Orchestration Server, which is the Genesys language specification for the following interfaces: (1) SCXML — What we support from the standard, both from an interface and behavioral standpoint; (2) Domain-specific languages (model modules) for all the Genesys-specific functional modules; (3) External interfaces to platform and SCXML sessions.

If creating voice applications that execute on the Genesys Voice Platform, you may to consult the following:

- *Genesys Voice Platform 8.1 Deployment Guide*
- *Genesys Voice Platform 8.1 CCXML Reference Manual*
- *Genesys Voice Platform 8.1 User's Guide*
- *Genesys Voice Platform 8.1 Application Migration Guide*
- *Voice Platform Solution 8.1 Integration Guide*
- *Genesys Voice Platform 8.1 Configuration Options Reference*
- *Genesys Voice Platform 8.1 Troubleshooting Guide*
- *Genesys Voice Platform 8.1 Legacy Genesys VoiceXML 2.1 Reference Manual*

Order of Migration

The information in this section is specific to the application processes and components that enable or support Composer 8.0.2, 8.0.3, 8.0.4, and 8.1.

Required Platforms and Components

Composer itself is not a sellable item. It is an application development tool that ships with two Genesys products:

1. Genesys CIM Platform (CIM), which includes both Universal Routing Server and Orchestration Server, is required to create SCXML applications for intelligent routing and/or conversation management.
2. Genesys Voice Platform (GVP) to provide development capabilities for VXML applications that execute on GVP. The GVP software is required to create VXML applications for voice self-service and/or assisted service. See Table 141 for the version of composer that ships with GVP.

Table 141: GVP Version Shipped with Composer

Composer	Genesys Voice Platform (GVP)
8.1.3	8.1.7
8.1.0	8.1.4
8.0.4	8.1.3
8.0.3	8.1.2
8.0.2	8.1.1, 8.1

If you wish to process multimedia interactions, you will need to install eServices (formerly Multimedia) Interaction Server. You will also need the servers applicable to the media types being processed, such as Genesys E-mail Server (formerly E-mail Server Java) and Chat Server.

If you wish to create voice or routing applications that invoke business rules, the Genesys Rules System is packaged with the Conversation Manager product in the Genesys 8.1 release.

Order for Migrating the Enabling Genesys Software

The Genesys software listed below must be in installed prior to using Composer. Migrate or upgrade in the following order:

1. Migrate Management Framework.

   Management Framework is the foundation for all Genesys products, solutions, and options.

   - Upgrade Genesys Administrator (used for deployment):

   For information about migrating the layers and components of Management Framework, see the “Framework Migration” part of this guide.

   If you plan to upgrade Configuration Server, Genesys recommends that you first back up the Configuration Layer to an XML file. For more information, see the chapter in this guide: Migration Procedures for GVP 8.x, Step 1 of the preliminary migration procedures.

2. Migrate other prerequisite Genesys components, if required. See "Interoperability at the Suite Level" on page 826.
   - If creating SCXML applications for intelligent routing and/or conversation management, migrate Universal Routing Server and Orchestration Server. See the *Composer 8.1 Deployment Guide* for versions and other software required.
   - If creating VXML applications for self-service, migrate to the Genesys Voice Platform and Media Control Platform. See the *Composer 8.1 Deployment Guide* for versions and other software required.

Interoperability Among Components

The term *interoperable* means that different versions of Genesys solutions, components, or options can work together compatibly during the migration process.

Interoperability of Genesys products can occur at two levels of migration:

- **Interoperability at the suite level** means combining different releases of solutions and options during the migration process.

  Example: You can migrate to the Management Layer of Framework 8.0.1 while still using 7.x or 8.0 components. For information about suite-level interoperability, see the *Genesys Interoperability Guide*.

- **Interoperability at the solution level** means combining different releases of the components of a particular solution while upgrading them sequentially during the migration process.

  The mixture of components may include the executable files, applications, routing strategies, scripts, and data that make up a particular solution.

  As you upgrade each of the components in sequence, you will need to know whether it is backward-compatible with the other components.

  Example: If you have four components to upgrade, determine whether the first component you upgrade to release 8.1 will be backward-compatible with the three 8.0 components you have not yet upgraded.

The following section provides important information about interoperability at the suite level and the solution level.

Interoperability at the Suite Level

Composer is comprised of a single executable component that works to create both voice and routing applications. When you install Composer as described

in the *Composer 8.1 Deployment Guide*, the installation creates a single `Composer.exe` in the installation directory.

Note: You may hide or enable voice or routing capabilities within Composer. Select `Window` > `Preferences` > `General` > `Capabilities`, click the `Advanced` button, and then expand `Composer`. The `Composer Route` and `Composer Voice check` boxes that appear are labels and do not refer to individual Composer components.

Interoperability at the Solution Level

Table 142 shows the GVP, CIM, and eService component versions required for full functionality of the current and previous versions of Composer.

Table 142: Platform Component Requirements

Composer Version	GVP	Orchestration Platform	eServices
8.1	Genesys Voice Platform (GVP) Media Control Platform 8.1.6+ for testing VXML applications.	Universal Routing Server 8.1.200.28+ Orchestration Server 8.1.2+ Interaction Routing Designer 8.0+ (for exporting strategies in XML format for support of migration)	If you wish to process multimedia interactions, you will need eServices (formerly Multimedia) Interaction Server 8.0.100.20+. You will also need the servers applicable to the media types being processed, such as Genesys E-mail Server 8.0+ (formerly E-mail Server Java). If you wish to use the Context Services capability of Universal Contact Server in routing workflows and voice callflows, you will need Universal Contact Server 8.1.000.10+. Genesys Configuration Server 7.5+ (for support of eServices capabilities) Classification Server 7.5 (or higher) (for screening / classification)
8.0.4	GVP 8.1.3 and Media Control Platform 8.1 for testing VXML applications.	Universal Routing Server (URS) 8.0.1 and Orchestration Server (ORS) 8.0.1.	Interaction Server 8.0.1. If you wish to use the Context Services capability of Universal Contact Server in routing workflows and voice callflows, you will need Universal Contact Server 8.0.2. Multi-valued customer profile extensions are supported starting with UCS 8.0.2.

Table 142: Platform Component Requirements (Continued)

Composer Version	GVP	Orchestration Platform	eServices
8.0.3	GVP 8.1 and Media Control Platform 8.1 for testing VXML applications.	ORS 8.0 and URS 8.0 required to execute.	Interaction Server 8.0. If you wish to use the Context Management Services capability of Universal Contact Server in routing workflows, you will need Universal Contact Server 8.0.1+.
8.0.2 (Name shorted to "Composer." See note below)	GVP 8.1 and Media Control Platform 8.1 for testing VXML applications.	ORS 8.0 and URS 8.0 required to execute.	None. Blocks for eServices implemented in 8.0.3
8.0 (Composer Voice) and 8.0.1)	Note: Previously, Composer was known as "Composer Voice," as it was used only to develop voice applications for Genesys Voice Platform. Starting with 8.0.2, the capabilities of the GUI were expanded to include support for Universal Routing application development. Due to this expansion in scope, the product name was shorted to "Composer." The terms Composer Voice and Composer Route are used in some places in the product, to refer to the collection of product features that are used specifically for Genesys Voice Platform application development, and Universal Routing Application development, respectively.		
	Note: Previous to Composer Voice, Genesys developers could use Genesys Voice Platform Studio 7.6 for the development of applications based on VoiceXML. For more information, see the "Migration for Genesys Voice Platform: Studio" part of this guide.		

Chapter

44 Changes in Composer Through 8.1

This section describes major enhancements made Composer through Release 8.1. There are three sections in this chapter:

Component Changes for Composer

Table 143 shows the component changes for Composer from 8.0 to 8.1.

Table 143: Component Changes from 8.0 to 8.1

Current Component Name	Type of change	Change Occurred in Version #	Details (optional)
Composer	Name change	8.0.2	Capabilities of the GUI expanded to include support for Universal Routing application development. Due to this expansion, the product name was shorted to “Composer.” The terms “Composer Voice” and “Composer Route” are used in some places in the product, to refer to the collection of product features that are used specifically for Genesys Voice Platform application development, and Universal Routing Application development, respectively.
ComposerVoice	new	8.0.1	Name of executable when product only used to develop applications for Genesys Voice Platform.

Changes in Composer Release 8.1

Release 8.1.3

Orchestration Application (SCXML) Features:

- Customizable global system event handlers in interaction process diagrams.
- New properties in Target block to support updating the DN of the reserved resource to include the access code returned by URS.
- New blocks for workflow diagrams:
  - The TLib block adds support for TSendRequest-based requests to Genesys T-Server through the TLIB protocol.
  - The SingleStepTransfer block adds support for the `<ixn:singlesteptransfer>` ORS action. This transfers a voice call directly, without creating another call leg.
  - The Raise Event and Cancel Event blocks are provided to raise events in the current SCXML session or to cancel a delayed event.

GVP Application (VXML) Features:

- The ECMA Script block is now also available in callflow diagrams, similar to its workflow/IPD counterpart.

Common Features / IDE Features:

- Support for Eclipse 3.7 (Indigo) and 4.2 (Juno).
- Composer is installed as a set of plug-ins.
- Localization support. Language Packs that provide translations for Composer can now be produced and then installed on top of Composer, allowing Composer to run in languages other than English. Localization of generated VXML and SCXML applications is also supported.
- Support for Mac OS (see *Composer 8.1 Deployment Guide* for features supported).
- Database passwords in connection profile can be encrypted.
- Common bundled Composer Project files can be updated at any time.
- Command line code generation.
- Composer Projects can track change revisions, and revision history can be viewed by the user.

- `Generate All` toolbar button can be used to generate code for all diagrams in a Project.
- Expression Builder now lists custom Javascript functions from a Project's included Java scripts.
- Block tooltips allow the user to see a summary of a block's properties at a glance, without pulling up the Properties View (experimental feature).

Release 8.1.2

Common Features Across Applications

- The Business Rules block works directly with Genesys Rules Engine and does not require going through GRAT server at runtime. This simplifies the usage of Genesys Business rules in VXML and SCXML applications.
- Enhancements made to Database blocks support Database clusters and secure connections; this enables users to connect to Oracle RAC and SQL clusters.
- Database Connections can use service names in addition to SIDs. Connection strings can be dynamically generated and support variables. This helps developers to simplify the usage of database connections.
- Blocks in either Orchestration workflows (SCXML) or Voice call-flows (VXML) can be disabled. For example, you may wish to temporarily remove a block during debugging or during development. Disabled blocks do not participate in the application at runtime.
- New properties for Logging are available for all blocks. Additional support for Alarms is added to workflows. This feature allows developers to minimize insertion of Log blocks and improves readability.

GVP application (VXML) Enhancements

- Support for Outbound Campaigns in callflows. New Outbound blocks enable callflow applications to update, add or delete records in Campaign Calling Lists and work as a solution in tandem with Genesys Outbound Solutions. Users can also update Do Not Call lists in an Outbound Solution through callflow diagrams.
- Callflow applications (VXML) can use the Operation Parameter Module (OPM) and Audio Resource Management (ARM) features of Genesys Administrator Extension. OPM enables simplification of the overall solution by allowing business users to easily control and manage callflows.
- This release adds a new utility function to access SIP header values in callflows.

- A new VXML code block allows the embedding of VXML code directly into callflows through <subdialog>. This feature provides developers the flexibility to modularize callflow diagrams.
- Users can specify custom formats for Voice prompts in a VXML applications. Custom formats can be created via ECMAScript functions in callflows.
- Input and ICM variables defined in callflow Entry blocks are initialized to default variables if no value is supplied at runtime. This behavior is controlled by a flag. Older version of callflows will continue to have this flag reset to maintain backward compatibility.

Orchestration Application (SCXML) Enhancements

- Enhanced debugger support provides the ability to debug SCXML applications. The Composer interface provides full debugging functionality for Composer generated and hand-coded applications.
- New Outbound Campaign blocks support integration with Genesys Outbound Contact features, such as adding, deleting, and updating Calling List records; updating Do Not Call lists; and other Calling List manipulation features. This functionality provides more robust integration between Routing logic and Genesys Outbound Contact functionality.
- New blocks support the SCXML <parallel> functionality allowing developers to define applications that can simultaneously perform multiple operations. Entry, Subroutine and Begin parallel blocks in workflows and sub-workflows support target-less transitions, which could be based on some condition.
- Support for Genesys Administrator Extension Operation Parameters (OPM) and Audio Resource Management (ARM) functionality in SCXML applications. This feature simplifies the solution and provides control to the end user, addressing Total Cost of Ownership (TCO).
- Voice Treatment blocks provide direct access to Extension data returned after treatment completion. Composer now supports Orchestration Server-based treatments instead of Universal Routing Server-based treatments.
- Support for multiple views for Workbins and existing queues within interaction process diagrams (IPDs).
- The Composer Help is available on the Composer Documentation.

Release 8.1.1

New features for creating SCXML-based routing applications include:

- An Orchestration Server (ORS) Debugger, which gives ability to debug SCXML applications including routing applications. The applications can be Composer-generated, hand-coded or a mix of both.

- When specifying ORS preferences, you can enable secure communications (SSL/TLS) between the Composer client and ORS, for SCXML debugging sessions. The connection between Composer and ORS is mutually-authenticated TLS if implemented on the ORS side.
- Routing blocks, as well as those involved in interaction processing, support multi-site routing: Target, Route Interaction, Queue Interaction, Force Route, Routing Rule, Default Route, Create E-mail, E-mail Response, E-mail Forward, Chat Transcript, and Create SMS. See new properties `Detach` and `Detach Timeout`.
- Support for development of "interaction-less" processing has been added, which allows the creation of SCXML applications that may be started/interacted with via ORS Web Services, rather than an interaction. The following features support "interaction-less" processing:
  - Blocks that influence interactions now support selecting the interaction they should use. The default behavior is to use the current interaction which is backwards compatible.
  - `Wait for Event` in the interaction process diagram, which can be set to not wait for a startup or triggering event thereby enabling interaction less workflows.
- To support "interaction-less processing," the following blocks add a new property, `Interaction ID`:
  - Routing blocks: Default Route, Force Route, Route Interaction, Queue Interaction, Routing Rule, Stop Interaction, and Target.
  - Flow Control blocks: Disconnect, and Exit
  - eServices blocks: Chat Transcript, Create Email, Create SMS, Email Forward, Email Response, Identify Contact, Update Contact, Create Interaction, and Render Message.
  - Voice Treatment: Create User Announcement, Delete User Announcement, IVR, Play Application, Play Message, and Play Sound.
- Interaction process diagrams add a Namespaces property, which gives the ability to refer to custom namespaces in generated code.
- Interaction Queue blocks in interaction process diagrams support segmentation based on views. Multiple views can be defined and each can redirect flow to a different workflow diagram.
- The following Flow Control blocks are available when creating an interaction process diagram: Branching, ECMAScript, and Log.
- When segmenting interactions to take different paths in a workflow, you now have the ability to define a default limit for each segment.
- When using the Media Server block to specify interactions of a particular media type for an interaction process diagram, the following servers are now available for selection: Chat Servers and Third Party Servers (such as one used for Capture Point application). The Publish operation creates endpoints for these server types.

- When using the Route Interaction block, a new Hints property allows you to specify extension data. The following blocks also add the Hints property: Cancel Call, Create User Announcement, Delete User Announcement, Default Route, Queue Interaction, Play Application, Play Sound, Play Message, Routing Rule, Target, User Input.
- When using the Route Interaction block, a new Hints property allows you to specify extension data. The following blocks also add the Hints property: Cancel Call, Create User Announcement, Delete User Announcement, Default Route, Queue Interaction, Play Application, Play Sound, Play Message, Routing Rule, Target, User Input.
- The Play Application block adds a new property, `Use User Data`. When set to `true`, Composer will automatically update the interaction's user data with the input/inout parameters specified in the `Parameters` property.
- The Target and Force Route blocks add a `Type` property, which you can use to define the type of redirection processing.
- The Route Interaction block and Target blocks add a new property, `Include Requests From Previous Blocks`, which can be used for cascaded target lookups.
- A new Wait block can be used to have Orchestration Server transition out when one of a defined list of events is received and the associated condition is true.
- When using Composer's Business Rule block to request the Genesys Rules Engine to execute a Rule Package in a routing workflow or voice callflow, the `getUData()` function is now available.

New Voice Application Features

New features for creating voice applications for GVP include:

- VXML callflows now support a VXML application root document. This enables features like global variables that are available across all callflows and sub-callflows.
- The `Prompts` property in the following blocks allows VoiceXML to overlay text into an existing video image/stream: Prompt, Menu, Input, DB Prompt, DB Input, Grammar Menu, Record, and Menu.
- The Menu block supports specifying DTMF for repeating a menu

New Voice & Route Application Features

- While exporting a `.WAR` file, each Project can specify a unique name which is included in the `.WAR` file.

- When using Context Services, you can specify a particular media type for a service, which can be a Configuration Server `Business Attribute`, such as for an Application Type. The following blocks add the `Media Type` property: Start Service, Associate Service, Complete Service, Enter State, Complete State, Start Task, and Complete Task.
- When defining parameters for the Backend, Web Request, Web Service, Subroutine, and Subdialog blocks, you can now use Expression Builder.

Release 8.1.0

New Features are as Follows

- Starting with Composer 8.1, you can migrate routing strategies created with Interaction Routing Designer (IRD) 8.0+ into Composer Projects as SCXML-based workflow diagrams, which can run on the Orchestration Platform. The migration process uses an import wizard to handle the transformation from an IRD strategy into a Composer workflow diagram. The *IRD To Composer Migration Guide*, available on the Composer Documentation, details the migration process.
- Composer can now interface with the Genesys Rules Engine, which is part of the Genesys Rules System. A Composer-compatible plug-in is available for developing business Rule Templates. This plug-in is provided as part of the Genesys Rules System. For information on installing the plugin, refer to the *Genesys Rule System 8.1 Deployment Guide*.
- A new Business Rule block lets you request the Genesys Rules Engine to execute a particular set of business rules in a routing workflow or voice callflow and get the results back.
- Composer moves closer to parity with Universal Routing's strategy creation tool, Interaction Routing Designer (IRD).
  - An E-mail Response block combines the functionality of IRD's Acknowledgement, Autoresponse, and Create Notification objects.
  - A Chat Transcript block allows you to generate a reply e-mail to a chat interaction and attaches a chat transcript.
  - An E-mail Forward block combines the functionality of IRD's Forward E-mail, Redirect E-mail, and Reply E-mail from External Resource object.
  - A Screen Interaction block allows you to screen a text-based interaction for specific content (specific words or patterns), and then (optionally) segment the interaction to different logical branches based on the result of the screening query.
  - A Classify Interaction block allows you to classify a text-based interaction based on content, and attach one or more Classification categories to the interaction.

  - For classification segmentation, an ECMAScript function determines if a particular category name or ID exists in the array of category objects represented by an application variable. This variable can be the output of the Classify Interaction block, enabling the Branching block to be used for segmentation based on category.
  - For manually attaching categories to an interaction, the User Data block can be used and then a branching block can be (optionally) used to segment interactions to different logical branches based on the different categories.
  - An Update Contact block allows you to update customer profile information in the UCS Database, based on data attached to an interaction.
  - An Identify Contact block can identify a contact based on the interaction User Data; return a list of matching Contact IDs based on the User Data; create a contact record in the UCS Database with information in the User Data if a matching contact is not found; or update the UCS Database record of the matching contact with information from the current interaction's User Data.
  - A Create Interaction block allows you to create an interaction record in the Universal Contact Server Database for a customer contact. This saves the current interaction being processed by the strategy, in the database.
  - A Render Message block provides the ability to render field codes in arbitrary text.
- Composer's existing Create E-mail block is enhanced to allow you to: pick up standard response text from User Data; specify that the "To" address be picked up from the Customer Profile in the Universal Contact Server Database; and use Field Codes in standard responses that will later be filled in with user-specific values.
- Composer's existing Route Interaction block now allows you to create applications where routing is based on schedules from Genesys Workforce Management.
- The Flow Control palette for routing applications contains a new SCXML State block. When used in a workflow diagram, it allows you to write custom SCXML code that Composer will include in the SCXML document that it generates based on the workflow diagram.
- The Flow Control palette for routing applications contains a new User Data block for updating an interaction's User Data and for attaching Business Attributes, Categories, and Skills.
- When an interaction process diagram (IPD) uses a Workflow block, if the referenced workflow diagram contains an eServices block that names a server performing an action or operation, Composer adds a visual indicator in the form of a node (similar to an IRD strategy-linked node).

- When developers work with Context Services, Composer accepts HTTP basic authentication credentials and uses them for authentication, including digest authentication for working with Web Services.
- You can now use variables in Skill Expression Builder. You can also disable Skill Expression validation from the Configuration Server preference page.
- You can now include your own custom JavaScript (*.js) files in workflows by placing them in the /include/user folder. The JavaScript functions in the specified .js file can then be used in Assign or Branching block expressions.
- As a result of Orchestration Server introducing the concept of sessions and interactions, Composer uses these concepts in its Routing functionality.
- A new Composer Route Project template is available: Forward to External Resource.
- Composer's database Query Builder and Stored Procedure Helper now supports table synonyms.
- New Integrated Voice and Route Project templates are available: Load Balancing and Working Hour Routing, External File-Based Routing, and Play Application and Busy Treatment.

To support creating voice applications for Genesys Voice Portal (GVP):

- The Transfer block provides a property for setting an authorization code (authcode).
- The Call Trace view used for debugging a callflow displays the line number for each incoming metric.
- A "barge-in" option is available for prompts. The Interruptible property for the following blocks add a new option for DTMF-only barge-in mode: Prompt block, DB Prompt block, Input block, Menu block, Grammar Menu block, and DB Input block.
- Automatic selection of language-specific pre-recorded prompts, grammars, and TTS prompts is now available during application execution. The following blocks add a new Language property: Prompt block, DB Prompt block, Input block, Menu block, Grammar Menu block, DB Input block, and Record block.
- The Language property affects the language of grammars used for ASR input for the following blocks: Input block, Transfer block, and Route Request block.
- The Record block's Capture Filename Prefix and Capture Location properties now allow selection from application variables in addition to accepting literal strings.
- SSML tags can now be used in prompts.

- You can now use the GVP ICM Adapter in VoiceXML applications, including invoking services, responding to requests, and sharing data. A new ICM Interaction Data block, available on the CTI Blocks palette, supports sending of variables to ICM. A new ICM Route Request block, also available on the CTI Blocks palette, supports routing the call to CTI.
- Voice Projects now have a Enable ICM Project-level flag, which controls whether ICM variables are available for selection and assignment to variables within Composer's Entry block.
- The Exit block’s Return Values property dialog allows you to select the ICM variables to be returned.

This release includes the following security-related enhancements:

- The Web Service block now supports certificate-based authentication. You can develop both voice (VXML) and routing (SCXML) applications that support secure mutual authentication and communication with a Web Service. Composer supports the use of both a digital client certificate and server certificate contained in a keystore file.
- When creating a routing application and connecting to Configuration Server, Composer displays informational text associated with both successful and unsuccessful authentication.
- You can configure an inactivity timeout for the connection to Configuration Server as well as when the timeout warning dialog should appear.
- You have the option of having a configurable security banner appear when Composer is first launched, similar to other Genesys applications. For information on configurable items related to the banner, see the Genesys 8.1 Security Deployment Guide.
- Composer supports secure connections when connecting to GVP's Media Control Platform and when connecting to Context Services for Universal Contact Server.
- Composer now has Transport Layer Security (TLS) support and adheres to Federal Information Processing Standards (FIPS) in its connection to Configuration Server and to GVP's Media Control Platform.
- When organizing custom blocks, you can also select from a set of bundled custom icons for the custom blocks you create.

Expression Builder is enhanced as follows:

- It now returns to its last user interface state when re-opened, which includes displaying the tree and the location in the tree in the Expression Builder Data area.
- The filter now works on the description of the functions in addition to the function signatures.
- Data loading is optimized to run in a separate thread. As a result, dialogs remain responsive while data loading is in progress.

New operating system support for 8.1 is as follows:

- Composer can run on the Windows 2003, Windows 2008 (32-bit and 64 bit in 32-bit compatibility mode), Windows XP, Windows Vista, and Windows 7 (32-bit and 64-bit in 32-bit compatibility mode) operating systems.

Changes in Composer Release 8.0.4

Please see the *Composer 8.0 Deployment Guide* for more information on these new features.

- The following Context Services blocks are now available for VXML applications: Associate Service, Complete Service, Complete State, Complete Task, Enter State, Create Customer, Identify Customer, Query Customer, Query Services, Query States, Query Tasks, Start Service, Start Task, and Update Customer.
- New Context Services blocks for service/offer personalization, reporting, and managing conversations include: Create Customer, Start Task, Complete Task, and Query Task.
- You can map returned data to application variables for the following VXML/SCXML Context Services blocks; Query Customer, Identify Customer, Query Services, Query Tasks, and Query States.
- This release adds support for multi-valued Context Services extension data, which is applicable to all Context Services blocks.
- A Routing Rule block gives the ability to use percentage allocation, load balancing, and statistical routing rules for target selection.
- A Force Routing block allows you to unconditionally route an interaction to the first target type (`ACD Queue, Destination Label, or Routing Point`) without any other operations.
- The Target block, used for routing voice interactions, adds new properties to support building conditional expressions, such as those used for share agent by service level agreement routing.
- A new `Threshold` property in the Target block allows you to build threshold expressions, which can use relational operators, user-defined variables, and the following URS threshold functions:
  - `sdata` for routing conditions based on statistics
  - `acfgdata` for routing conditions based on data stored in Configuration Server Application objects
  - `callage` to return the age of an interaction
  - `lcfgdata` for routing conditions stored in Lists objects
- The Target and Route Interaction blocks add a `Priority` property, which lets you select a variable that contains an expression returning the priority that the interaction will be given in the queue.
- The Branching block now supports segmenting incoming interactions based on call type and/or media type.

- The External Service Block adds a `User Data` property.
- The following blocks add `Wait for Treatment End` and `Request ID` properties: Play Application, Play Message, and User Input.
- The ECMAScript block (through Expression Builder) exposes the following functions:
  - findServiceObjective, which can find/retrieve a Configuration Server service objective for a given combination of Customer Segment, Service Type, and Media Type.
  - priorityTuning, which can adjust the priority of an interaction by taking into account age, expected wait time, and service objective.
- The User Input block adds support for verify digits, retry, success case, and failure case prompts.
- New voice treatment blocks are added:
  - The Pause block inserts a pause between treatments.
  - The Create User Announcement block records an announcement from a user (supports multiple prompts).
  - The Delete User Announcement block deletes an announcement from the Create User Announcement block, possibly in a different workflow.
  - The IVR block sends an interaction to an Interactive Voice Response unit. It has both Compatibility and Non-Compatibility modes to support, for example, specifying a remote resource to be used for a treatment.
  - The Cancel Call block allows you to stop a currently running call.
- The Target block is enhanced to display a busy treatments output port, which can be connected to treatment blocks, such as Play Application, Play Message, Play Sound, and User Input.
- Workbin blocks can now be added to interaction process diagrams. A Workbin block, which represents a temporary storage area for interactions, can be associated with agents, agent groups, places, or place groups.
- You have the option to define one or more views for a workbin, which defines the conditions for extracting interactions and directing them into workflows.
- The Create SMS (Short Message Service) block allows you to specify pre-written text for the content of the SMS.
- The Route Interaction block adds a `Workbin Name` property. Its value will be used as the workbin for targets specified in the block.
- The Interaction Queue, Workflow, and Workbin IPD blocks add an `Object Name` property, which shows the Configuration Server `Script` object name after the object is published.
- A new *Composer 8.0 Routing Applications User's Guide*, available on the Genesys documentation library DVD, introduces new Composer users to the GUI, interaction process diagrams, and workflow diagrams.

- A Customization Manager view helps you manage various aspects of your Composer installation that you have customized.
- You can save a callflow or workflow diagram as a template and have the template appear on the list of available templates when creating a new diagram. You can also remove previously added templates. Diagrams saved as templates can exported to/imported from the file system.
- When defining a database connection profile, you can enable connection pooling, which maintains a set of database connections that can be reused for requests to databases. You can use this feature to enhance performance by avoiding time-consuming re-establishment of connections to databases.
- When defining the languages an application supports, you can define custom locales.
- Also, new additional Composer-defined locales are introduced: Hong Kong Cantonese, English-Irish, English-India, English-Scottish, Mexican-Spanish, Icelandic-Iceland, Thai-Thailand, Bengali-India, Spanish-Argentina, United States-Spanish, Gujarati-India, Kannada-India, Malayalam-India, Marathi-India. Oriya-India, Punjabi-India, Tamil-India, and Telugu-India.
- In cases where multiple records are returned, a Looping block, available for both callflows and workflows, can loop through all the records. For each iteration of the loop, mapped variables can be populated with the values of the next record.
- Additional VXML schemas can be added into Composer and used in namespaces for new VXML files created through Composer's VXML editor.
- The Set Call Result block for voice applications allows tagging of calls with SQA call status (success, failure).
- The Disconnect block adds a `Reason` property. The content can be either an ECMAScript expression created in Expression Builder or free-form text.
- Composer adds Microsoft 7 (Premium and Ultimate editions) and Windows Server 2008, 32-bit to its list of supported operating systems.

Changes in Composer Release 8.0.3

Please see the *Composer 8.0 Deployment Guide* for more information on these new features.

- If Context Services is enabled at your site, you can create SCXML-based applications that extract customer data elements from the UCS Database and apply this knowledge during the routing of interactions or as part of a self-service application. New blocks allow you to create workflow applications that:
  - Identify customers and update their profiles
  - Extend customer profiles with user-defined information
  - Query a customer's profile
  - Associate services with customers
  - Create/start/complete customer services
  - Query customers' active services
  - Enter and complete service states
  - Query service histories
  - Query active and completed service states
- A Project template is provided demonstrating the use of Context Services.
- This release begins support for SCXML-based routing workflows that process multimedia (non-voice) interactions. New multimedia processing blocks let you define workflows that:
  - Create an outbound e-mail
  - Perform various types of processing on e-mails including sending
  - Route a multimedia interaction to a target
  - Place a multimedia interaction in a queue
  - Invoke functions through Genesys External Service Protocol
  - Create, process, and send a Short Message Service text message
  - Send Stop processing information for an interaction to Interaction Server and update the Universal Contact Server Database.
- Project templates are provided demonstrating how to create multimedia workflows.
- Composer introduces a new type of diagram used for both voice and multimedia, called an interaction process diagram (IPD). When used for multimedia workflows, IPDs can move interactions from media servers (to queues, pull interactions from queues, and submit interactions to workflow strategies for specific types of processing.
- The following new blocks support processing interactions with IPDs:
  - Interaction Queue for defining new queues in the Configuration Database.
  - Media Server Block for getting interactions from media server endpoints into the IPD.

  - Workflow for pointing to a workflow resource, such as a workflow diagram or SCXML file.
- A new type of variable, called a Project variable, allows you to share information across different workflows.
- Project templates are provided demonstrating the use of IPDs.

This release also contains some minor enhancements for voice callflow / VXML development:

- Example VXML code template as an example of how to handle N-Best results.
- All Composer blocks that support prompts now support RTSP resources/URIs.
- Variable type prompts can now have an RTSP URI in a variable.
- The Help documents how to create and import prompts record as per the Prompt Manager export specifications.
- A new Entry block property allows suppression of data within the Nuance 9 platform ASR logs.
- Non-numeric strings can be dialed for transfer destinations.
- Support for the Call Progress Analysis/AMD on transfer feature using the Genesys media server, third party media gateways, and the PSTN Connector.
- Support for the AT&T blind transfer with the following options: Out of Band Courtesy, Out of Band Consult, and Out of Band Conference.

Other enhancements that relate to both voice and routing applications include the following:

- You can save a callflow or workflow diagram as an image in one of the following formats: GIF, BMP, JPEG, SVG, PNG, or PDF. You can also export the diagram to HTML.
- You have the ability to hide file types in Composer's `File > New` menu.

Changes in Composer Release 8.0.2

This release of Composer is compatible with Universal Routing 8.0. It provides the following routing strategy (“workflow”) development features, including:

- Authoring of workflows through a drag-and-drop visual designer or direct creation and editing of SCXML files. Universal Routing Server 8.0 is required to execute these workflows. The following categories of blocks for creating routing applications are provided: Flow Control, Routing, Voice Treatment, and Server Side.
- Workflow samples demonstrate segmenting interactions, target selection, percent allocation, statistical routing, web requests, and other functionality.

- Global exception handling, which is available through the Entry block of a workflow.
- An Expression Builder with syntax checking for creating expressions, which can then be used for branching and routing decisions. The Assign, Branching, and ECMAScript blocks access the Expression Builder, which can also be used for voice callflows.
- A Skill Expression Builder with syntax checking for routing based on the value of a skill expression. Routing can also be based on the value of a statistical expression.
- A List Objects Manager to create, for example, lists of 800 numbers that can be accessed by workflows. Key-value pairs can be specified in List elements. List objects are stored in Configuration Server and can be retrieved by a strategy/workflow at runtime.
- A Statistics Manager and Builder, which lets you create custom statistics from the URS predefined statistics. The ability to use the URS predefined statistics in a workflow is also provided.
- A new Composer Design perspective, which provides an interface that facilitates the creation of callflow and workflow diagrams.
- The ability to write ECMAScript within a workflow, to be executed by an application server during runtime. Examples of how ECMAScript can be used include conditional routing, data type, and string manipulation functions. ECMAScript expressions can be created using the Genesys-supplied Functional Modules described in the Composer Help book, *Universal Routing 8.0 SCXML Reference*.
- The ability to connect to Genesys Configuration Server during design time, to access and validate specific Genesys configuration objects that are referenced in workflows. Composer also supports working in an offline mode, when it is not connected to Configuration Server.

This release of Composer is compatible with Genesys Voice Platform (GVP) 8.1 release features. It includes the following new features for voice applications:

- Web services stubbing, which allows you to work with Web Services in an “offline” mode when you do not have access to the Web Service itself or if the Web Service is under development (used for both routing and voice applications).
- A new Query Builder for use with the DB Data block, in both voice application callflows as well as routing strategy workflows.
- You can now visually work with and execute database stored procedures in the DB Data block.
- You can select the default and active locales to use for a project when creating a new project through Composer’s Project wizard. This will drive the available locales within Composer’s Grammar Builder and Prompts Manager. Additional locales may be added to the project at any time.

- Import and export of Composer projects as well as individual routing strategy files is supported.
- Full support for migrating/upgrading 8.0.1 Composer Voice Projects and callflow diagrams.
- The ability to create and then import and export custom blocks.
- You can now start and stop the bundled Tomcat server from within Composer.
- Support for catching `error.com.genesyslab.subdialog.maxdepthexceeded`.
- Support for catching Call Progress Analysis events through custom event handling.
- Support for offboard Dual Tone Multi-Frequency (DTMF) signal recognition.
- A new Prompts Manager perspective makes it easier to review prompts for any application.
- A new preference for prompt validation indicates if a validation check for missing prompts must be enabled.

The following new features apply to both voice applications and routing strategy workflows:

- The ability to hide voice application and/or routing workflow development capabilities through a Composer preference setting.
- Keyboard navigation in all dialogs. User entry forms and keyboard mnemonics/hot keys are provided for common tasks.
- Block look and feel has changed to make it easier to visually identify blocks.
- Support for defining custom events.
- HTTPS support is provided for the Web Services and Web Request blocks.
- Genesys supports running Composer as a virtual image using the VMware software and player.

Part

14 Voice Treatment Option Migration

This section describes the migration process from releases 6.1 and 6.5 to release 7 of Voice Treatment Option product. It also discusses component and option changes and the other Genesys software that supports and enables Voice Treatment Option functionality. This part has the following chapter:

- Chapter 45, "Migrating Voice Treatment Option," on page 851 describes how to migrate Voice Treatment Option (VTO) 6.5 to VTO 7.0. It also describes how to upgrade components that belong to VTO after Framework has been successfully migrated.

Genesys

Chapter

45 Migrating Voice Treatment Option

Voice Treatment Option migration information is considered to be a part of Universal Routing migration, because routing strategies frequently send incoming calls for voice treatments. For example, each caller can be greeted with a recorded message and prompted for an account number.

The following sections describe how to migrate Voice Treatment Option (VTO) 6.5 to VTO 7.0. They also describe how to upgrade components that belong to VTO after Framework has been successfully migrated. The information is divided among the following topics:

As you migrate to VTO 7.0, you should also refer to the user documentation for more in-depth information. In particular, refer to:

- *Voice Treatment Option 7 Voice Treatment Server User's Guide*, which will help you deploy the Voice Treatment Server (VT Server) component. This guide also describes how to start and stop this component once it has been installed and configured.
- *Voice Treatment Option 7 Voice Treatment Manager User's Guide*, which will help you deploy the Voice Treatment Manager (VT Manager) component.

General Instructions for VTO 7.0

The information in this section will help you prepare for the migration of VTO 6.5 to 7.0. This section first discusses the dependence of VTO on Framework components. It then explains the changes in VTO from release 6.5 to release 7.0. The following section describes the new features and enhancements in VTO 7.0.

Before Migrating VTO

Before migrating VTO to the 7.0 release, you must first migrate the configuration environment. Although the VTO 7.0 components are compatible with the previous releases of VTO, Framework, and Universal Routing components, to take full advantage of VTO 7.0 functionality, all Genesys components are recommended to be release 7.0 or later. Ensure that your Framework components versions are not lower than those listed in Table 145, "Minimal Version of Dependent Components," on page 854. The Framework section of this guide explains the process for migrating the Framework components.

Note: Review the licensing requirements for Framework 7.0. See Chapter 6, "Licensing Migration," page 47.

Component Changes from 6.5 Through 7.0

Table 144 lists component changes in VTO from release 6.5 through release 7.0. For a list of changes to Framework components, see the *Framework 7 Getting Started Guide.*

Table 144: Component Changes in VTO

Current Component Name	Type of Change	Change Occurred in Release #	Details (Optional)
Voice Treatment Server	Upgraded from 6.5 release	7.0	
Voice Treatment Manager	Upgraded from 6.5 release	7.0	
Voice Treatment Option Configuration Wizard	Upgraded from 6.5 release	7.0	Includes new Voice Treatment Option Export/Import Wizard

New in the Release 7.0.1 VTO

This release includes the following new features:

- VTO 7.0.1 adds support of DM3 Dialogic boards, specifically DM/V Series, by implementing its call control functionality through Dialogic GlobalCall software layer.
- The list of supported encoding algorithms and parameters is extended to match those supported by the DM/V Dialogic boards.
- Voice Treatment Server 7.0.1 enables the use of Advanced Disconnect Detection Protocol (ADDP) in its connections to Configuration Server and T-Servers.
- New VTODBC sample provides the reference implementation of VTO Extension Action which enables VTO Scripts to retrieve or modify data in an ODBC-compliant SQL DBMS, by running any type of (optionally) parameterized SQL queries against the database.
- The possibility to call VTO Wizard directly from the Wizard Manager.

New in the Release 7.0 VTO

A feature change in release 7.0 of VTO includes:

- Export/Import Wizard—Scripts, Voice Files and Actions can now be exported and then imported into a regular directory.

Component Compatibility for VTO 7.0

Because some VTO 7.0 components are compatible with previous releases of Framework and VTO components, you might wish to maintain your current versions of some of the components while migrating others to release 7.0 or later. While deciding whether or not to do so, consult Table 145, “Minimal Version of Dependent Components,” on page 854.

Note: To take full advantage of VTO 7.0 functionality, all Genesys components are recommended to be release 7.0 or later.

Table 145: Minimal Version of Dependent Components

Components	VT Server 7.0	VT Manager 7.0	VTO Configuration Wizard	VTO Export/Import Wizard 7.0
VT Server	5.1.028 [1]	5.1.028 [4]	6.5.100 [7]	any [8]
VT Manager	any [2]	6.5.100 [5]	6.5.100 [7]	any [8]
VTO Configuration Wizard	7.0 [3]	7.0 [3]	Not Applicable	7.0 [3]
VTO Export/Import Wizard	Not Required	Not Required	Not Required	Not Applicable
T-Server	6.0/6.5 [12]	Not Required	Not Required	Not Required
Configuration Server	5.1	6.0 [6]	6.0	6.0
Management Layer (LCA)	6.5 [9]	Not Required	Not Required	Not Required
FlexLM License Server	8.3c [10]	Not Required	Not Required	Not Required
Licenses	VTPort 7.0	Not Required	Not Required	Not Required
Dialogic software	System Relapse 5.1.1, Service Pack 1 [10, 11]	Not Required	Not Required	Not Required
Dialogic hardware	[10, 13]	Not Required	Not Required	Not Required

1. VT Servers depend on each other only if they are run concurrently within the same configuration environment configured to serve the same Tenant(s), that is, replicate voice recordings between each other. In such configurations, VT Server 7.0 shall not run concurrently with VT Servers prior to versions 5.1.028.
2. VT Manager is not required to run VT Server. VT Server 7.0 is capable of playing back scripts created or updated with VT Manager 7.0 and any earlier versions.
3. Required for configuration only. Not required at runtime
4. Scripts created or updated with VT Manager 7.0 can be played back by VT Server 5.1.028 or later. Scripts which use features introduced in the later versions of VT Manager require a corresponding version of VT Server in order to be interpreted correctly.
5. Although earlier versions of VT Manager are capable of handling scripts created or updated with VT Manager 7.0, features introduced in the later versions of VT Manager can be lost if the scripts are updated with the older VT Manager.

6. With Configuration Server 7.0, VT Manager 7.0 is required. Earlier versions of VT Manager can fail to update some scripts imported or migrated from configuration environments prior to 7.0.
7. Although VTO Configuration Wizard 7.0 can be used to configure VTO components prior to versions 6.5.100, the Wizard does not recognize features existing in earlier versions of the VTO components. The Wizard, therefore, will not allow the configuration of features which did not exist in the older VTO components and consequently such features will not function.
8. The Export/Import procedure preserves the format, version and data specific for the version of VT Manager used to create or update the original scripts. In order for the features used in the scripts to be interpreted correctly, VT Manager and VT Server in the scripts' destination environment must not older than the corresponding components used in the scripts' original environment.
9. LCA and other Management Layer components are not required to run VT Server. In order for the layer to monitor and manage VT Server, a minimum 6.5 version of LCA should be installed on VT Server's host.
10. Not required to run VT Server in the Demo Mode.
11. Dialogic software is not required to run VT Server in the Demo Mode.
12. Refer to the *Genesys Supported Media Interfaces* document for the list of supported T-Servers and their versions.
13. Refer to the *Genesys Supported Media Interfaces* document for the list of supported Dialogic boards.

Migration to VTO 7.0

You should plan your migration to VTO 7.0 carefully. This will save time and ensure a smooth transition.

The information in this section is intended for someone who is familiar with VTO, and has participated in routing training, and understands such Genesys terms as solution, application objects, and components in the context of Genesys software.

The following information describes the migration from release 6.5 to 7.0 for VTO components only. However, it is also applicable for migrating from earlier VTO releases.

Upgrading Software Components

If you have VTO running with Framework 5.1, 6.0, or 6.1, Genesys recommends that you migrate to Framework 7.0 or later.

If you wish to upgrade selected components, before upgrading VTO, you need to upgrade your Framework components to (at minimum) the versions not lower than those listed in Table 145, "Minimal version of dependent components".

Script Migration

All VTO objects - Scripts, Voice File Descriptors, and actual voice file recordings created using all previous versions of VTO can be used and maintained successfully by VTO 7.0. No special migration procedures are required.

Note: As soon as an older object is modified with a newer version of VTO components, however, it may become incompatible with the older versions of VTO and vice-versa. A newer object that is modified with an older version of a VTO component may lose its newly introduced features. It is therefore necessary to upgrade all VTO components — all installed Servers and Managers — at the same time.

VTO Upgrade Procedures

Before upgrading VTO, you need to have installed both the Genesys Common Wizard Set and the Genesys Universal Routing Configuration Wizard.

The following sections describe upgrading VTO initially deployed as an optional component of the Enterprise Routing Solution (ERS). VTO components not configured as a part of any solution can be upgraded individually. Refer to the Upgrading individual VTO components section below for additional instructions.

Installing VTO Configuration Wizard

To start upgrading VTO, install the VTO Configuration Wizard. Even if you already have a VTO Wizard installed, running its Setup ensures that you use an up-to-date version.

Note: To eliminate the need for the computer to reboot after the Wizard installation, make sure that the Configuration Manager, the Wizard Manager, the Solution Control Interface and all open Configuration Wizards are closed.

Note: The VTO Wizard can be updated with each maintenance release of VTO. The look and sequence of the Wizard dialog boxes you see may be slightly different from the images in this document. Additional dialog boxes may appear to reflect newly added features or options. In case of discrepancies with this document, refer to the Wizard's instructions. Also refer to the VTO Wizard Advisory and VT Server release notes.

To install the Wizard, run `Setup` from the root directory of the VTO Product DVD. The setup installs the VTO Configuration Wizard and updates all necessary components of the Configuration Framework Wizard. If requested, reboot the computer before proceeding further.

Starting VTO Wizard

The way you start the VTO Wizard depends on whether you deployed VTO as an option of Enterprise Routing or independently. In both cases the VTO Wizard will help you to upgrade VTO components and create a configuration environment to run them. The only difference is, if you configured VTO within the Enterprise Routing Solution, VTO components are associated with this specific solution, so they can be managed as part of this solution in the Configuration Management Layer. VTO components deployed independently can be associated with the Enterprise Routing Solution after the initial deployment and configuration process is complete.

Starting the VTO Wizard to Upgrade VTO as Option for Enterprise Routing Solution

If you have Enterprise Routing Solution already configured, to start VTO Wizard and upgrade VTO within the existing Enterprise Routing Solution:

1. Start the Genesys Wizard Manager.
2. Login to the configuration from the opening window of the Wizard.
3. Select the `Enterprise Routing` link on the left-side of the window. The right-side of the window displays *Enterprise Routing* (see Figure 19 on page 858).
4. In the list of installed Enterprise Routing solutions, select the solution in which you plan to deploy VTO; then, click `Properties`. This opens the properties of the selected solution.
5. Click the `Options` tab and select `Voice Treatment Option` (see Figure 20 on page 859).

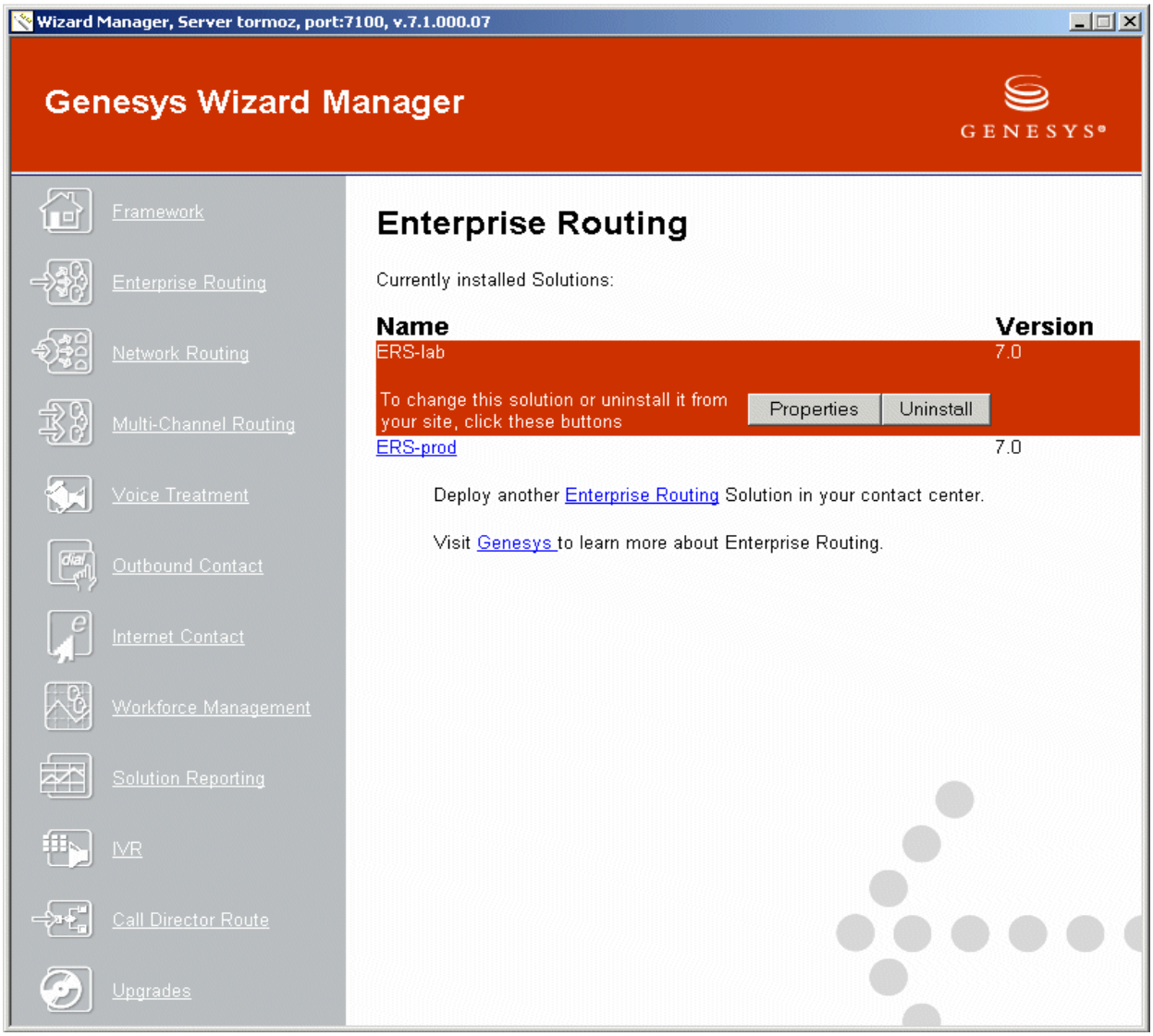

Figure 19: Genesys Wizard Manager—Enterprise Routing

6. If Voice Treatment Option in the list of options is shown as Not Installed, this means that you have not yet added VTO components to this solution. It is recommended that you keep VTO components configured within the Enterprise Routing Solutions so that the entire solution can be configured with the Configuration Framework and managed with the Management Layer as a single entity. Before proceeding with the upgrade you need to add already deployed VTO components to the Solution. Refer to Adding VTO to the Enterprise Routing Solution section below.

7. If VTO components have previously been added to the solution, the state of the Voice Treatment Option in the list will be shown as Installed. The `Upgrade` button will be enabled.

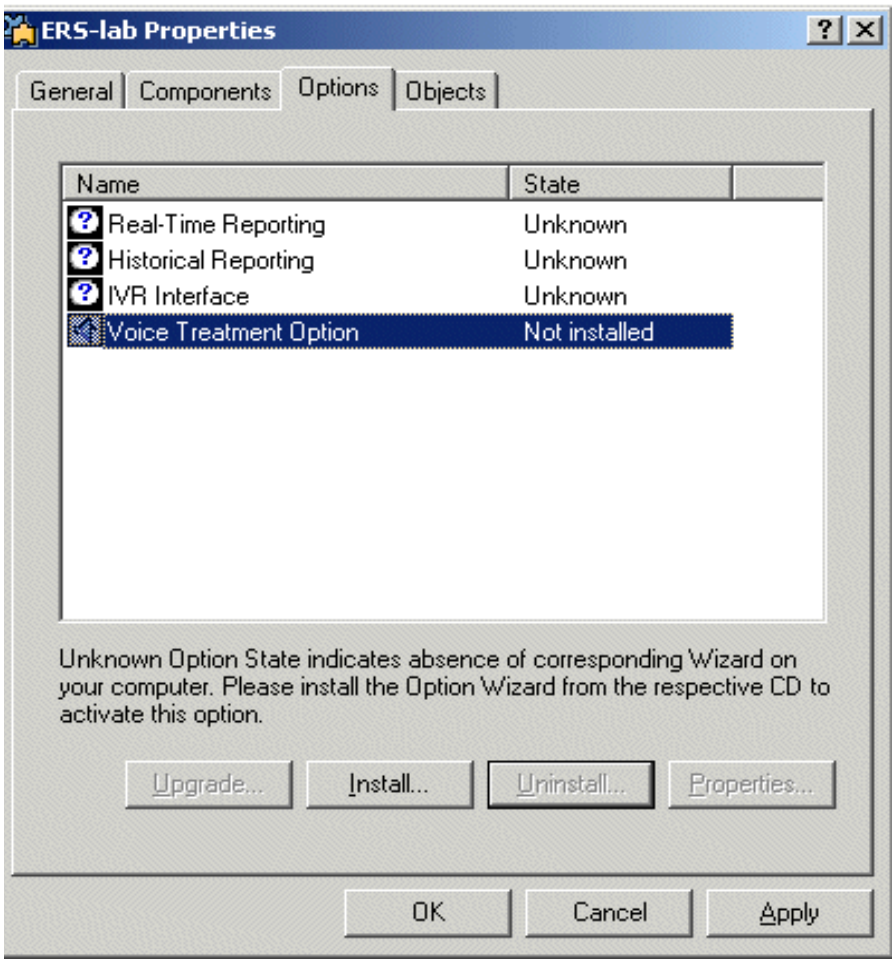

Figure 20: ERS Properties

8. Click `Upgrade`. This starts the Genesys Voice Treatment Option Wizard (see Figure 21 on page 860).

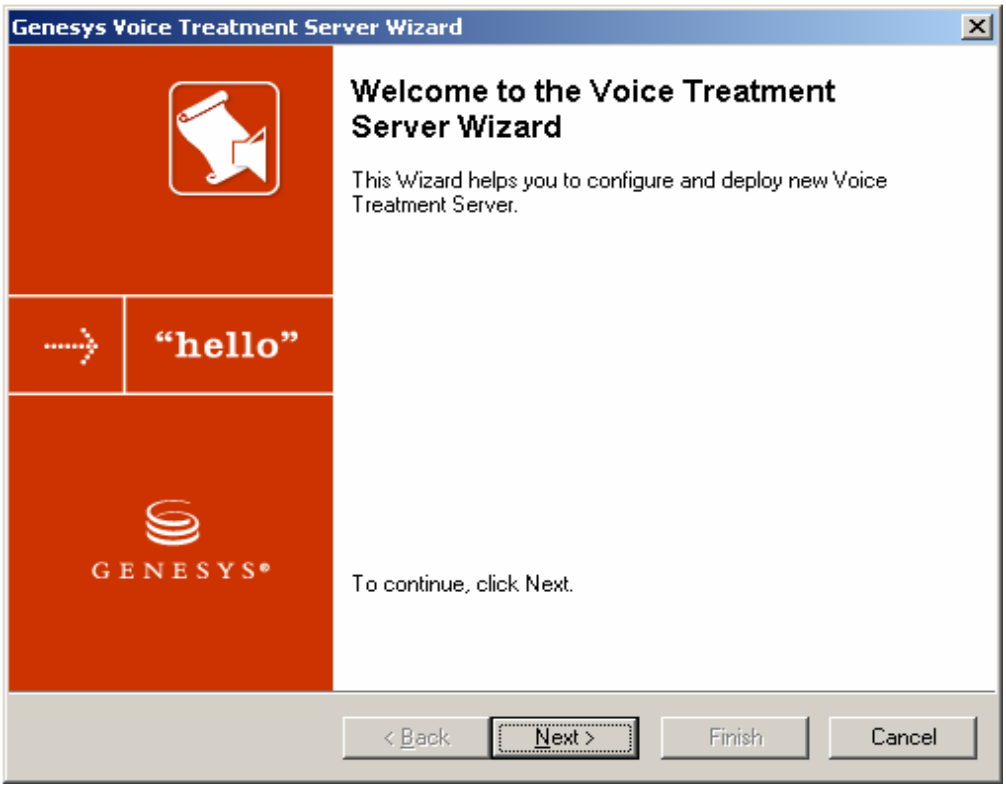

Figure 21: Genesys Voice Treatment Option Wizard

Starting the VTO Wizard to Upgrade VTO Independently from Enterprise Routing

To start the VTO Wizard and deploy VTO independently from Enterprise Routing:

1. Start the Genesys Wizard Manager.
2. Login to the configuration from the opening window of the Wizard.
3. Select the `Voice Treatment` link on the left-side of the window. This feature is available from 7.0.1 Release. The right-side of the window displays the Voice Treatment page. See Figure 22 on page 861.
4. Click the `Upgrade` link. This starts the Genesys Voice Treatment Option Wizard. See Figure 21.

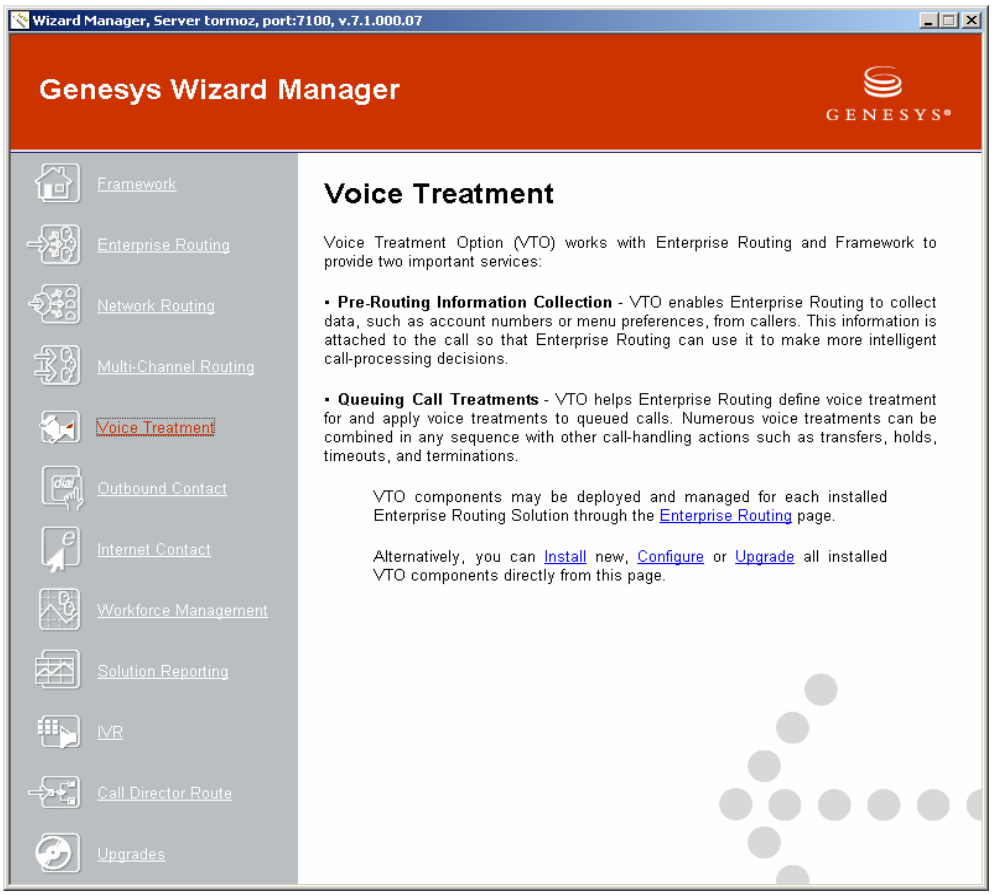

Figure 22: Genesys Wizard Manager—Voice Treatment

Upgrading VT Servers

The first Wizard page lists the Voice Treatment Servers. If you run VTO Wizard from Enterprise Routing Solution you will see only VT Servers configured within the selected Solution. To add another already existing VT Server to the solution click the `Add`. Then select the existing VT Server from the `Browse` window.

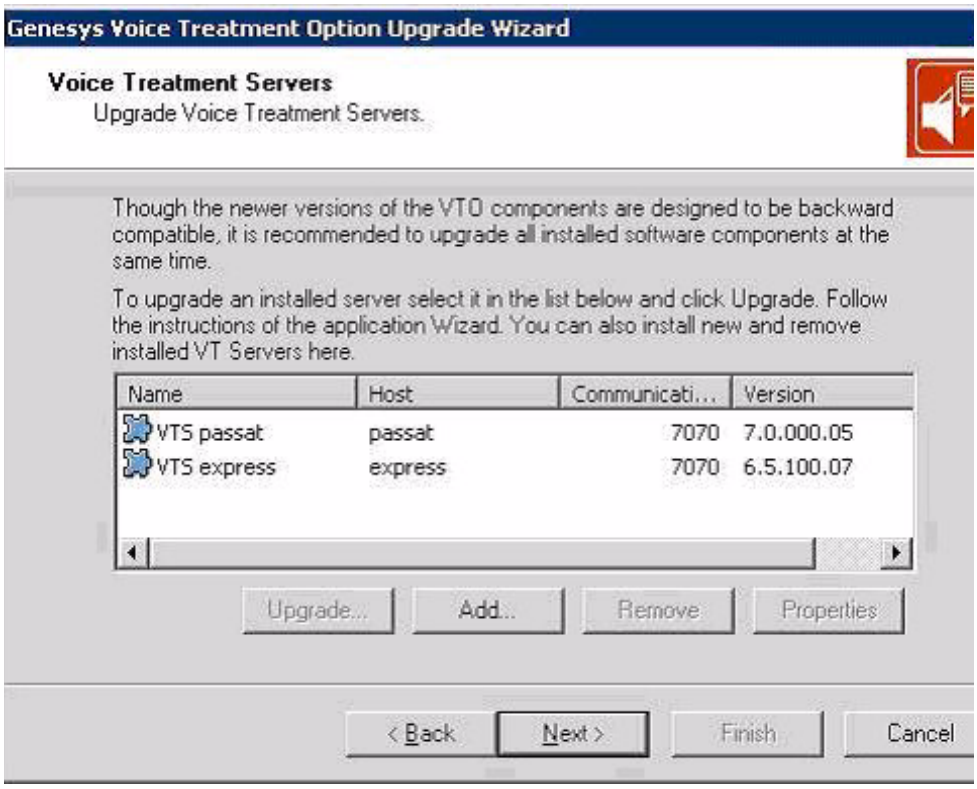

Figure 23: VTO Upgrade Wizard—Voice Treatment Servers

1. Select the Voice Treatment Server you are going to upgrade, and click `Upgrade`. This launches the Voice Treatment Server Upgrade Wizard. See Figure 24 on page 863.

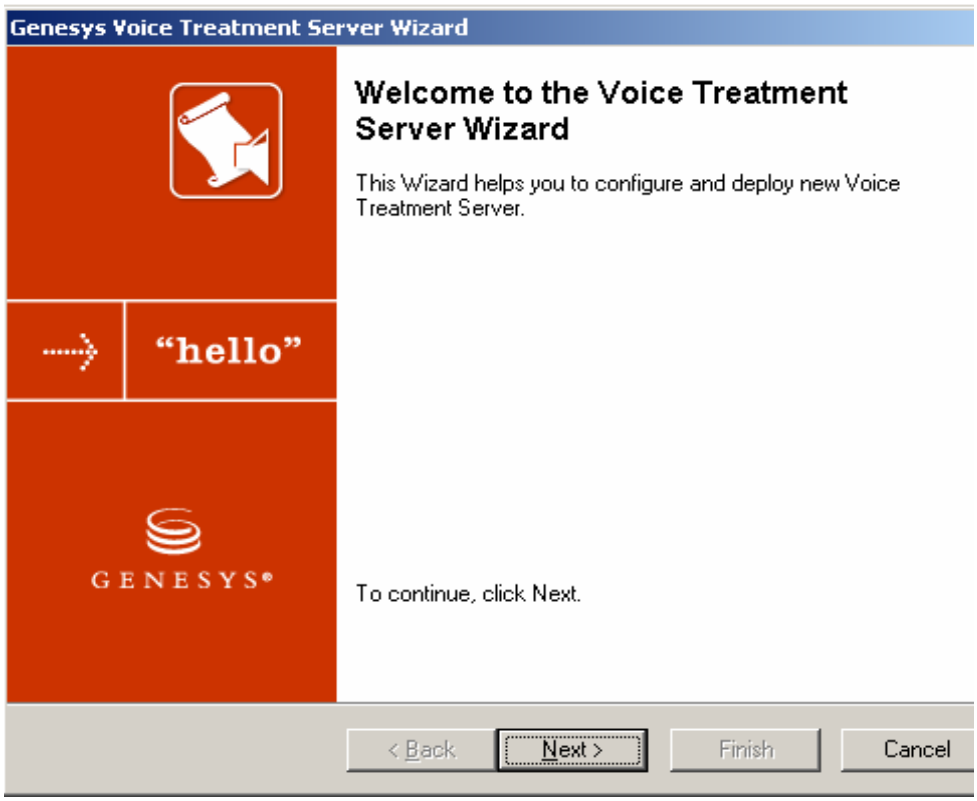

Figure 24: Voice Treatment Server Upgrade Wizard

The next window displays basic information about the application you are going to upgrade.

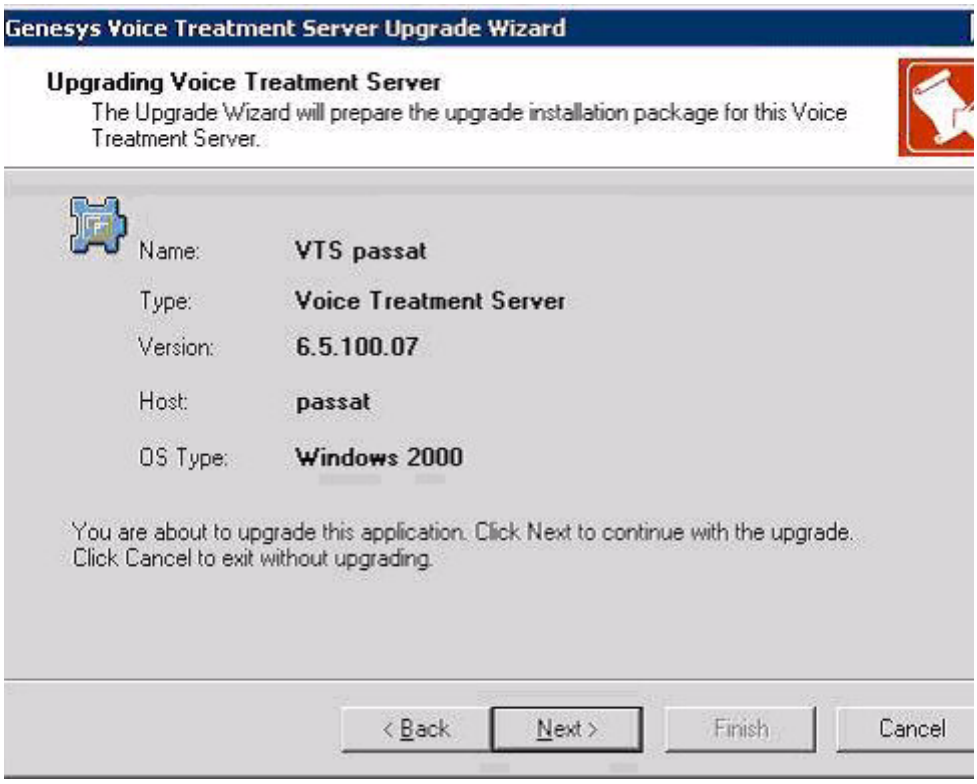

Figure 25: VT Server Upgrade Wizard—Upgrading VT Server

If you plan to move the application to another computer, you can do so using the next Wizard screen.

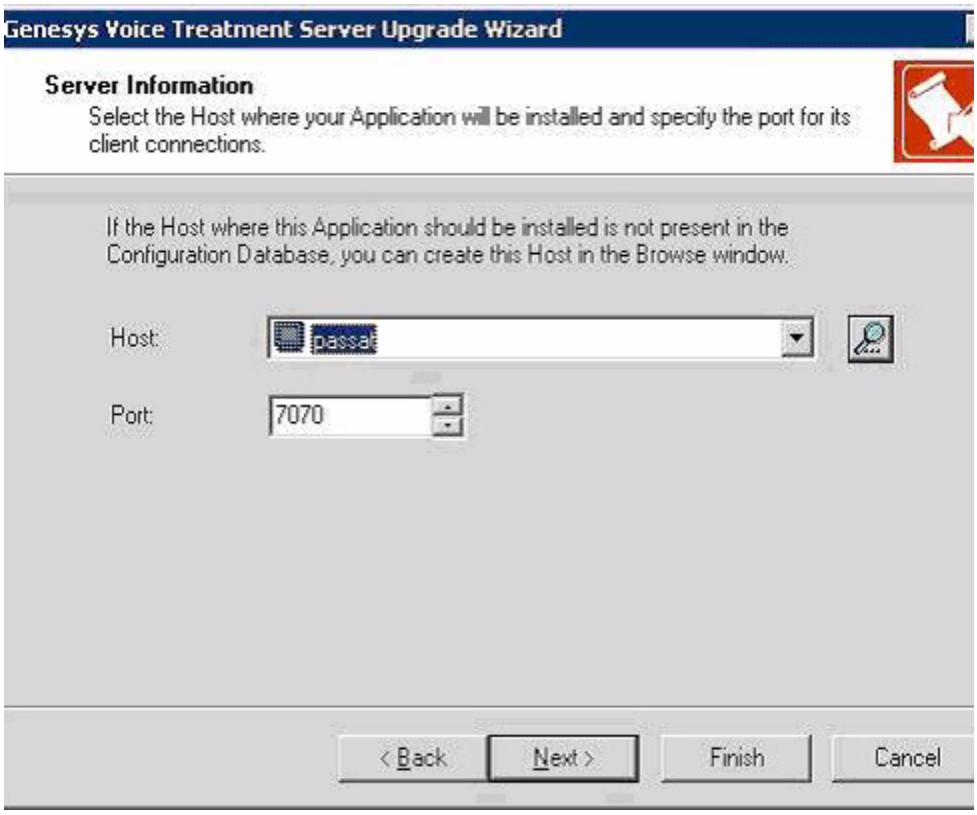

Figure 26: VT Server Upgrade Wizard—Server Information

Note: If you move VT Server from its original location, you have to make sure that its new configuration corresponds to the hardware installed on the new host. You may need to review the initial VTO deployment procedure described in Chapter 3, "Configuring and Deploying VTO" in the *Voice Treatment Option 7 Voice Treatment Server User's Guide* and, after the upgrade procedure is complete, review and, if necessary, modify the VT Server's configuration settings. To make sure that existing voice recordings are correctly relocated, carefully follow the instructions given in the "Recording location" section.

The next Wizard window prompts you for the source of the new VT Server Installation Package and the network location to which the Installation Package appropriate for the operating system of the target host will be copied.

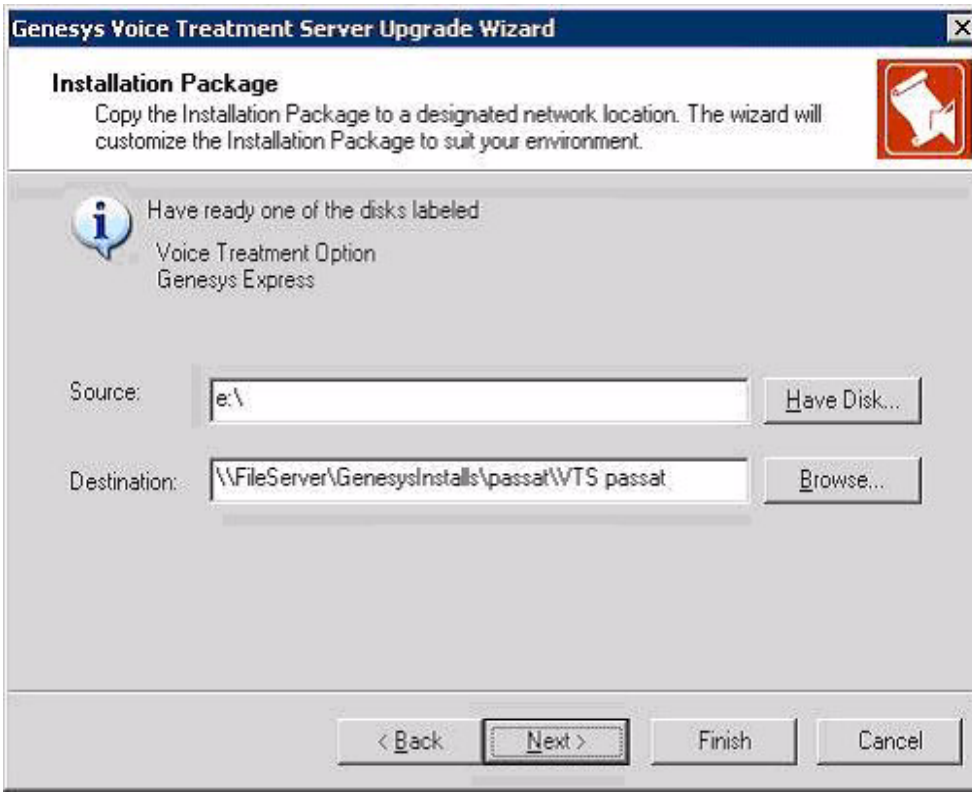

Figure 27: VT Server Upgrade Wizard - Installation Package

2. Select the Source containing the VTO Product DVD image. This may be the DVD drive containing the VTO Product DVD or the network directory containing the VTO DVD image. Point to the Destination where the Wizard will place VT Server's Installation Package. The selected destination must be writable from your computer and can be read from the host where you plan to install VT Server.
3. When you click `Next`, the Wizard copies the VT Server Installation package from the Product DVD to the Destination you specified.

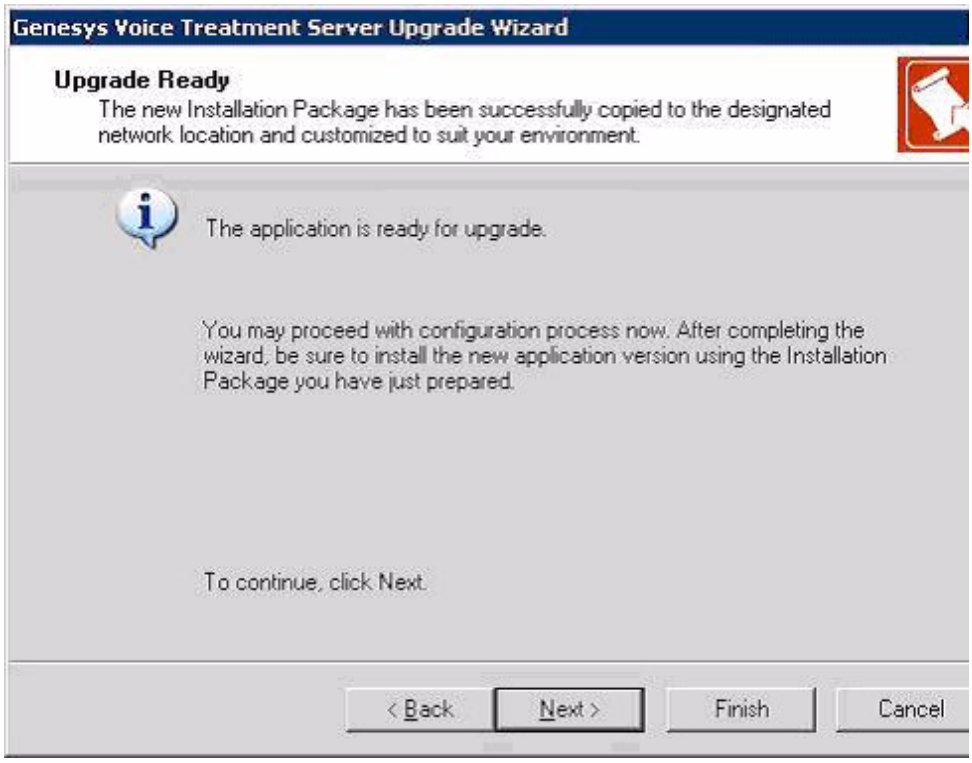

Figure 28: VT Server Upgrade Wizard - Upgrade Ready

Once the installation package has been copied into the Destination you just specified, you can install VT Server from this location by running `Setup` on the target host. Along with the installation package, the Wizard places the reference to the VT Server's application object in the configuration so that when you run the `Setup` on the VTO host, the Setup is able to read the configuration data from this object and put local settings at the target computer accordingly.

Note: Do not reuse the installation package copied by the Wizard for another instance of VT Server.

---

4. Once you have copied the Installation Package, click `Finish`. This returns you to the VT Servers list of the Voice Treatment Option Upgrade Wizard.

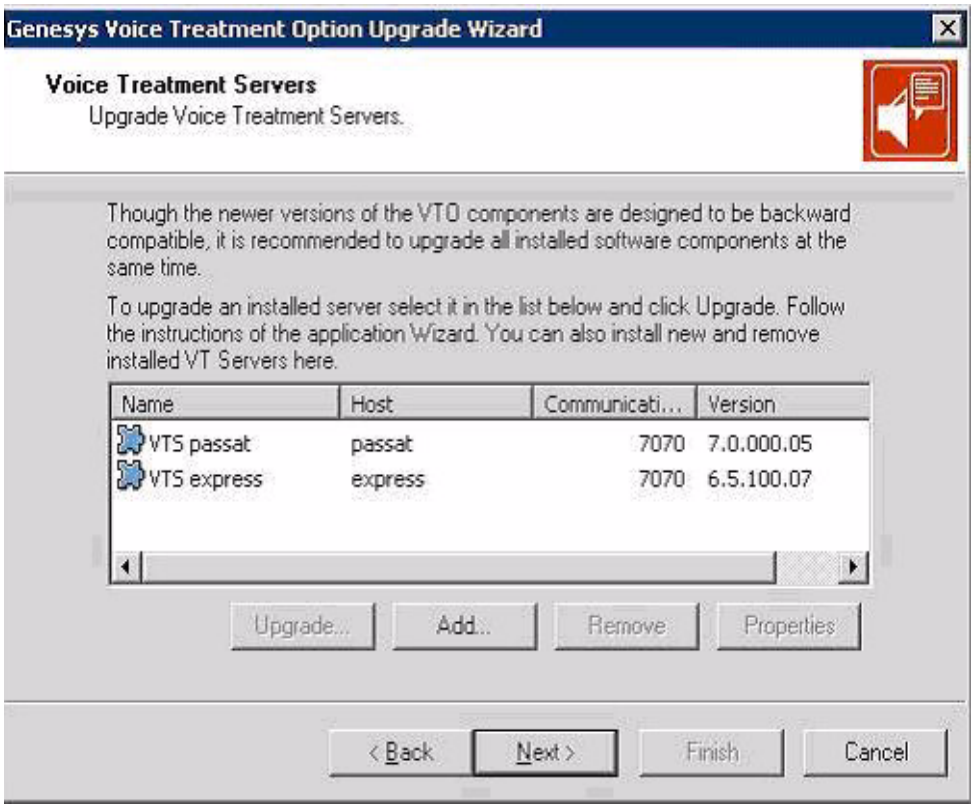

Figure 29: VTO Upgrade Wizard—VT Servers

5. Continue upgrading VT Servers by selecting another outdated one in the list and click `Upgrade`.

Warning! If you are upgrading VT Server from 5.1.027.00 or an earlier version, you need to upgrade all VT Servers configured to serve the same Tenant at once. Running VT Servers 5.1.027.00 or earlier concurrently with any later version (5.1.028.00 and later, including 7.0) in some circumstances may cause irreversible loss of voice recordings.

Upgrading VT Manager

Once you have finished upgrading VT Servers, proceed to the next window of the VTO Configuration Wizard.

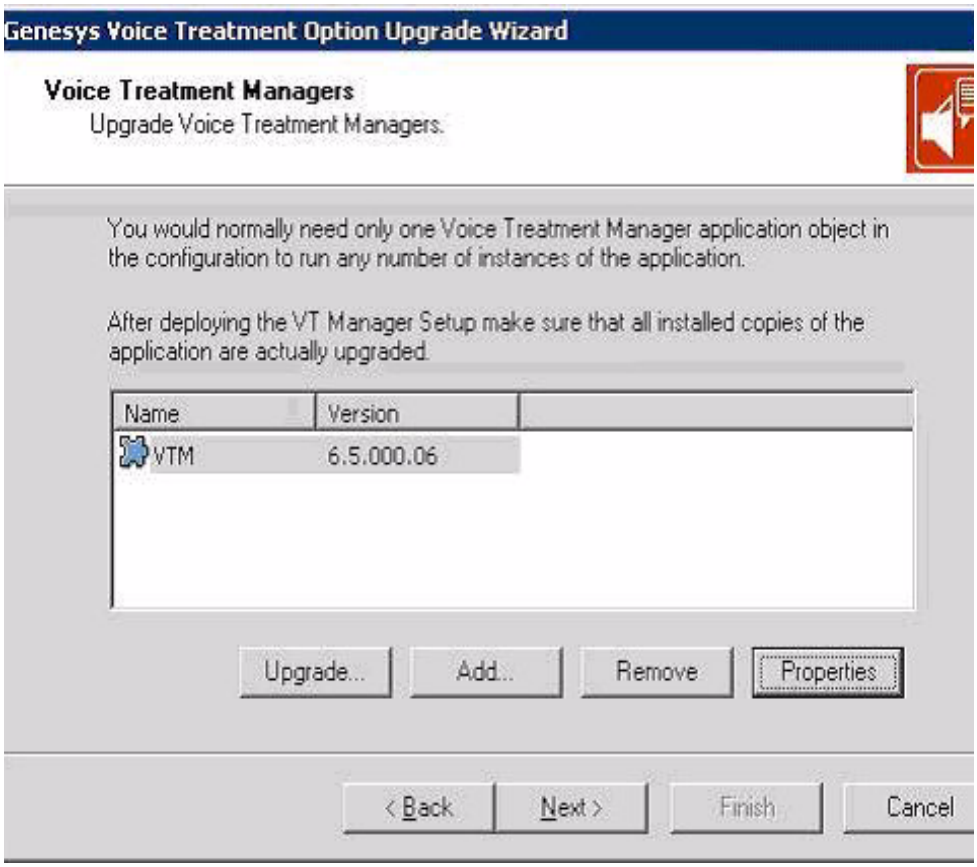

Figure 30: VTO Upgrade Wizard—VT Managers

This window allows you to launch the VT Manager Upgrade Wizard, which prepares the Installation Package for upgrading VT Managers on the client computers. The sequence of the Wizard's screens is similar to the one you have seen while upgrading VT Servers. The Upgrade Wizard updates the VT Manager application object in the configuration, and copies the Installation Package of the updated VT Manager into the network location you specify. Once the installation package has been copied, you can install VT Manager from this location by running `Setup` on the target computers. Unlike the VT Servers, the single instance of the Installation Package copied by the Wizard can be used to upgrade all VT Managers installed on the client computers.

Enabling VTO administrative functions in VT Manager

Some VTO administrative functions introduced in VT Manager 7.0 (i.e., VTO scripts `Export/Import` and `Voice Files and Actions management`) require the VTO Configuration Wizard to be installed along with VT Manager itself. Details about these functions can be found in Chapter 9, "VTO Export/Import

Wizards" in the *Voice Treatment Option 7 Voice Treatment Manager User's Guide*.

If you plan to enable this functionality on computers other than the one you use for configuring, deploying and upgrading VTO, you need to provide access to the Wizard's Installation Package from these computers. To do so, copy the Wizard's Installation Package located in the `configuration_wizard` directory on the VTO Product DVD along with the VT Manager's Installation Package copied by the VT Manager Upgrade Wizard. The VTO Configuration Wizard and VT Manager may be installed on the client computers in any sequence.

Note: In order for the VTO scripts `Export/Import` and `Voice Files and Actions management` to function in VT Manager, VT Manager requires read/write file access from the computer where VT Manager is running to the VT Server's Program and Voice directories. The `Program` directory is the directory where the VT Server's Setup installs VT Server. It can be identified by the presence of the main VT Server executable module named `EAServer.exe`. The Voice directory is the one where VT Server keeps its voice recording files. Its default location is the `VoiceData` subdirectory of the VT Server `program` directory. Its location is specified by the `General\VoiceDir` option in the VT Server's application configuration object (refer to the "Recordings Location" section in the *Voice Treatment Option 7 Voice Treatment Server User's Guide* for detailed information). In order to enable administrative functions in VT Manager, create a network share that allows read/write access to the VT Server's `Program` and `Voice` directories for the Windows network users you plan to perform the VTO management functions.

If multiple VT Servers are configured to serve a single Tenant and replicate voice recordings and extension actions modules between each other, it is sufficient to open access to only one VT Server's Voice and Program Directories to enable Export/Import and Voice Files and Actions management functionality in VT Manager. Files placed in the single VT Server's directories by the Export/Import Wizard will be replicated to other VT Servers with the VT Server's built-in file replication.

Note: Exception - If you have one or more VT Servers configured to serve multiple Tenants concurrently and would prefer not to allow access to the entire VT Server's Program and Voice directories to any single VT Manager user, but still want to enable VT Manager's administrative functions for each Tenant's users individually, you may want to install and configure additional VT Servers for each Tenant and have the additional VT Servers act solely as the replication agents. Such "replicated" VT Servers can be installed on any computer in the network in the Demo Mode, without depending on the Dialogic service and will not require additional licenses to run. Their Voice and Program directories can be open for access for their respective Tenant users.

Adding VTO to the Enterprise Routing Solution

To manage new VTO components through the Management Layer as solution components, you need to add VTO to the ERS.

Note: If you do not plan to manage the VTO components from within the solution, proceed to the section, "Upgrading Individual VTO Components" below.

1. On the `Options` tab of the Enterprise Routing Solution Properties window, select `Voice Treatment Option`.

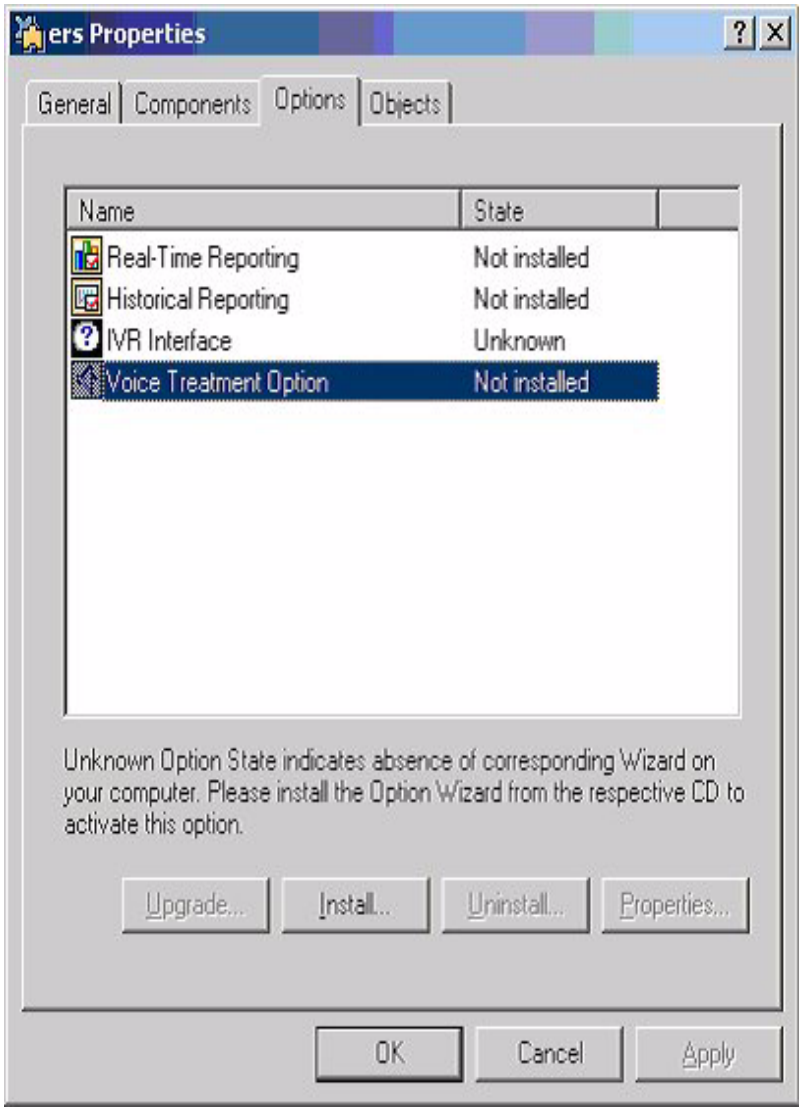

Figure 31: ERS Properties

2. Since VTO is not yet installed in this solution, its State is displayed as `Not Installed`. Click `Install`. This launches the Voice Treatment Option Wizard.
3. On the Voice Treatment Servers page of the Wizard, add the VT Servers you plan to run within the solution. Since you are upgrading VTO from a previous version, there are already existing Voice Treatment Server Application objects in the configuration. The Wizard allows you to add them as solution components by pressing `Add`, and then selecting existing Servers in the `Browse` window.

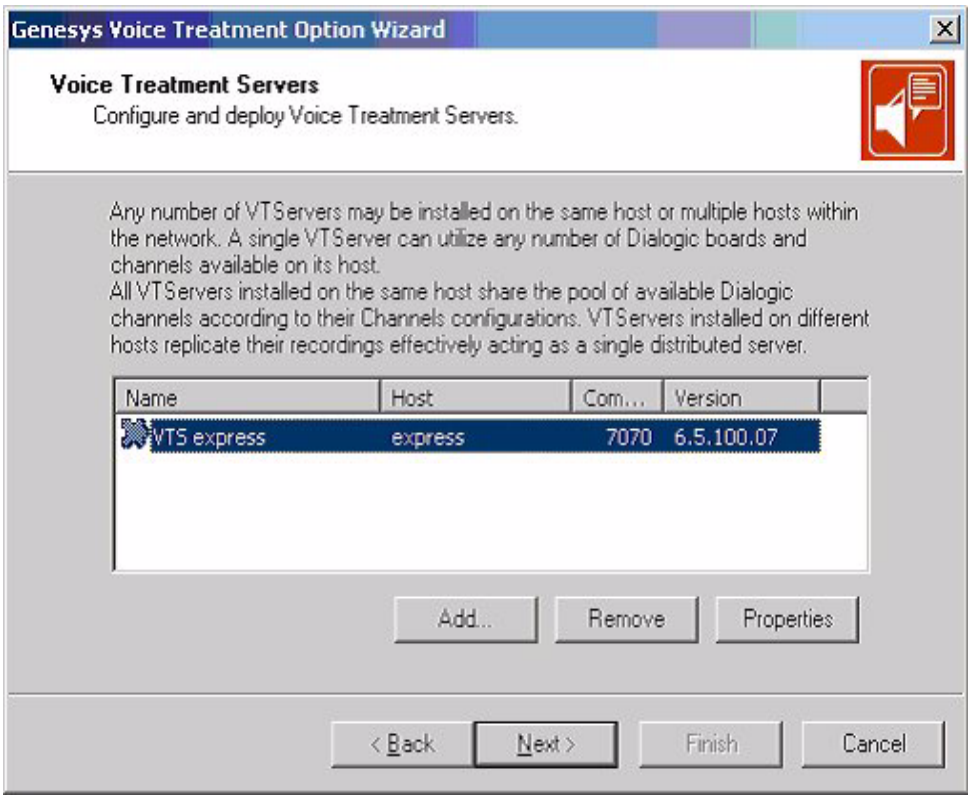

Figure 32: VTO Wizard—VT Servers

4. On the Voice Treatment Managers screen of the Wizard, add the VT Manager object that exists in your configuration.

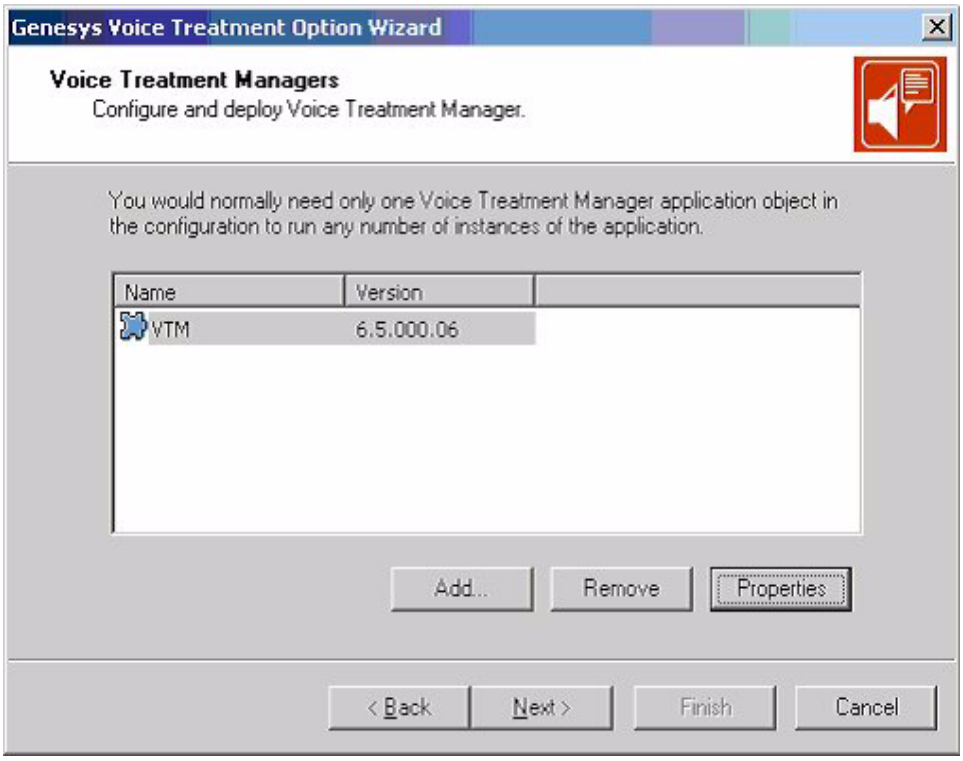

Figure 33: VTO Wizard—VT Managers

5. Clicking `Finish` returns you to the Options page of the ERS window. The state of the Voice Treatment Option is now changed to `Installed` and you may proceed with the main upgrade procedure of the VTO components as described above.

Upgrading Individual VTO Components

Genesys recommends that you keep VTO components configured within Enterprise Routing Solutions so that the entire solution can be configured with the Configuration Framework and managed with the Management Layer as a single entity. Starting with version 6.5, VTO has been specifically designed to be interoperable with the Management Layer and configured and managed as components of ERS. However, it is possible to run VTO components that are not formally included in any Solution. If you intend to continue running VTO this way, you may still upgrade the VTO components through the Wizard Manager's Upgrade screen.

1. Start the Genesys Wizard Manager.
2. Through the opening window of the Wizard, login into the configuration.

3. Select the `Upgrades` link on the left side of the window. The right side of the window displays the list of configured Solutions.
4. Select the `Show Individual Applications` checkbox. This opens the list of all applications defined in the configuration with versions lower than 7.0.

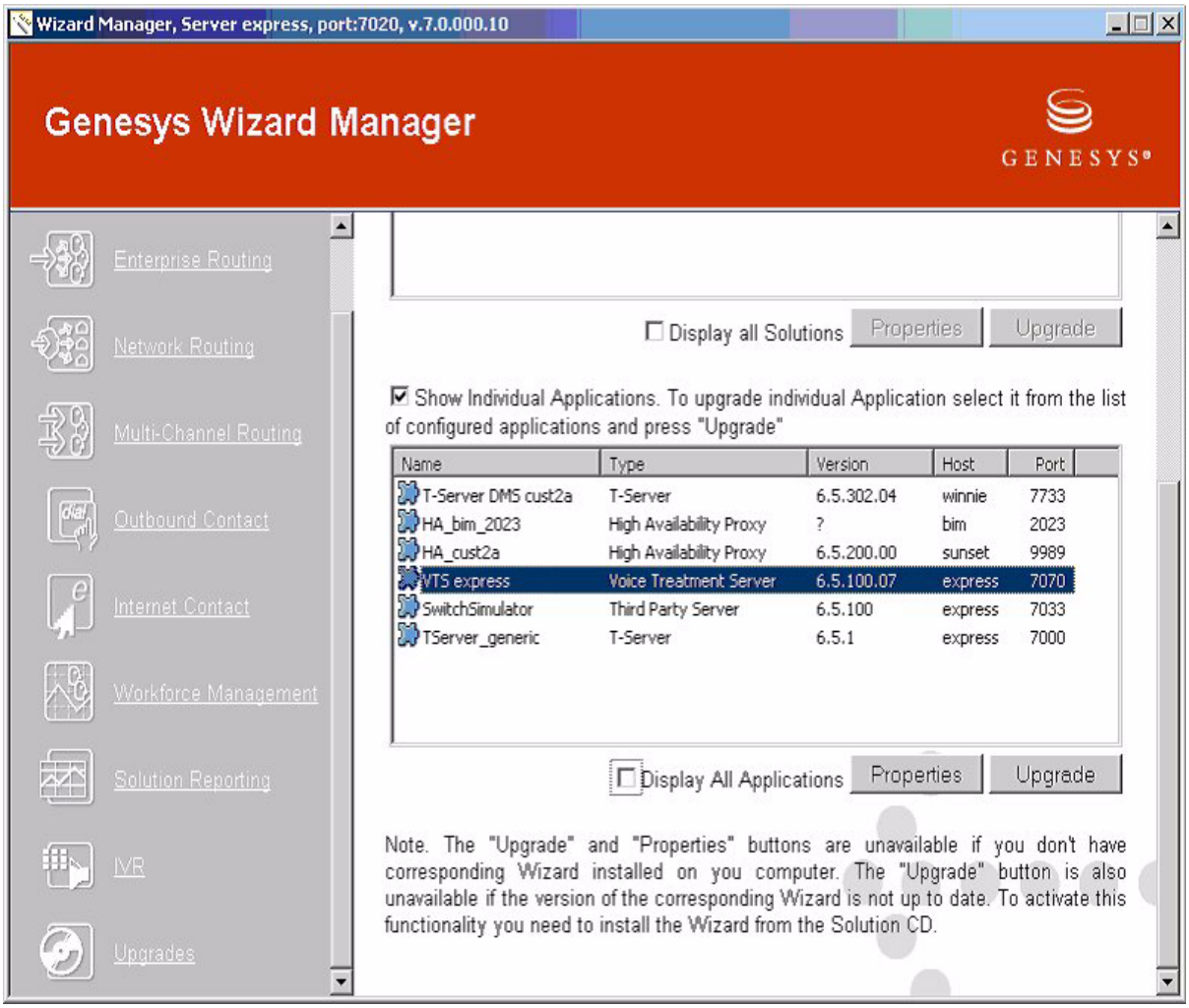

Figure 34: Genesys Wizard Manager

5. Locate the Voice Treatment Server or Voice Treatment Manager application you plan to upgrade. Click `Upgrade`. This launches the Upgrade Wizard for the selected application directly. Use the Upgrade Wizard as described above.

Upgrading VTO Manually

Genesys recommends that you upgrade the VTO components using VTO Configuration Wizards. Only use the manual procedure if the version of your configuration environment is earlier than 6.x.

Note: The only 7.0 VTO component capable of running in a pre-6.0 configuration environment is VT Server. VT Manager and VTO Configuration Wizard require at least Configuration Server 6.0.

To upgrade VTO manually:

1. In Configuration Manager, for each configured VT Server, open the Properties window for the VT Server Application object.
2. From the `Options` tab, export the configuration options to a configuration file. Save a copy of this file in case you have problems configuring VTO 7.0 and need to return to the VTO 5.1 version.
3. From the `Options` tab, remove the options that are no longer supported, replace the options that were replaced by others, and add new options supported in VTO 7.0. See the *Voice Treatment Option 7 Voice Treatment Server User's Guide* for more information. Also see Table 146 on page 876 for options implemented between VTO 5.1 and VTO 7.0.

Table 146: VTO Options

Option	Server Name	Type of Change	Change Occurred in Release #
WaitForReleasedTimeoutMSec	VT Server	Newly implemented	7.0.1
SilenceDetectionTimeoutSec	VT Server	Newly implemented	7.0.1
AnswerTimeoutMSec	VT Server	Newly implemented	7.0.1
CallRecovery	VT Server	Newly implemented	6.5
RecoveryTransferDestination	VT Server	Newly implemented	6.5
AnswerMethod	VT Server	Newly implemented	5.1.028
WaitForEstablishedTimeout	VT Server	Newly implemented	5.1.028
Ring	VT Server	Newly implemented	5.1.027
Release	VT Server	Newly implemented	5.1.027
NoTEventRingingTimeoutSec	VT Server	Newly implemented	5.1.027
CutCallsOnTDisconnect	VT Server	Newly implemented	5.1.023

4. Add the log section and log options to the `Options` tab. See *Framework 7 Configuration Manager Help* for information about adding a new section and the *Framework 7 Configuration Options Reference Manual* for a list of log options.
5. Click `OK` to save the changes and close the `Properties` window.

6. On each target host where you are upgrading VT Server, uninstall the previous version of VT Server. Before uninstalling, make note of the directory where VT Server's executables and voice recordings are located. The uninstallation will remove all program components, but will leave all voice recordings intact. From the Voice Treatment Option 7.0 DVD, launch the VT Server `setup.exe` located in the `solution_specific\vts\windows` directory. See the *Voice Treatment Option 7 Voice Treatment Server User's Guide* for installation instructions.

   Note: If you are installing the new version of the VT Server in the same directory where the older version of VT Server was installed, the `VoiceDir` option, which specifies the path to the recordings directory, remains valid. This allows the new VT Server to use the old recordings immediately. If you are installing VT Server in a different directory and the VoiceDir option specifies the relative path (path relative to the location of VT Server's executable), you will need to *either:* modify the VoiceDir option to make it point to the old location and move the system recordings (`Sys*.VOX` files and `SysDigits.VOX` directory) installed there by the setup files. *or* move old recordings to the new location pointed to by the `VoiceDir` option.

7. On each workstation, uninstall the previous version of VT Manager. To install the new version from the Voice Treatment Option 7.0 DVD, launch the VT Manager `setup.exe` located in the `solution_specific\vtm\windows` directory. See the *Voice Treatment Option 7 Voice Treatment Manager User's Guide* for installation instructions.

Genesys

Part

15 Workforce Management Migration

This section provides migration instructions and an overview of changes to Workforce Management. This Part has the following chapter:

- Chapter 46, "Workforce Management Migration," on page 881 provides migration instructions and an overview of changes to Workforce Management up to the 8.1 release.

Note: For migration to 8.5.x releases, go to Workforce Management on Genesys Technical Documentation web site.

Chapter

46 Workforce Management Migration

This chapter provides instructions and procedures that will help you to migrate or update your Workforce Management (WFM) deployment to various WFM releases. It also contains an overview of any changes that were implemented in each WFM release.

Note: Starting in 8.5.0, Workforce Management migration information is published on the Genesys Technical Documentation web site, including the migration overview, migration procedures, and important changes in each release. Go to the Workforce Management to access that information.

The information in this migration chapter is provided, based on the assumption that you have read and are familiar with WFM 8.1 features, architecture, deployment planning guidelines, and software prerequisites in the *Workforce Management 8.1 Administrator's Guide*. These topics present an overview of Workforce Management.

This chapter contains the sections:

Migration Overview

The most important aspect of WFM migration is migrating or updating the database. Configuring and installing the new components is the same whether you are migrating, updating, or installing them for the first time. Therefore, this chapter focuses mostly on migrating or updating the database.

Note: See the *Workforce Management 8.1 Administrator's Guide* for configuration and installation procedures.

The procedures in this document include only those steps that are specific to migrating or updating from previous product releases.

Procedures that all users of Workforce Management must perform are documented in the chapters "Installing and Configuring Workforce Management" and "Configuring Application Object Settings" in the *Workforce Management 8.1 Administrator's Guide*. Be sure to have this document at hand before beginning the migration.

Note: If you are migrating your WFM deployment to 8.1.3, you can also set up an Extract, Transform and Load (ETL) Database, which enables Genesys Info Mart and other third-party reporting applications to easily create reports that incorporate WFM data. For more information about how to set up and use WFM ETL Database, see the *Workforce Management 8.1 Administrator's Guide*.

Migrate vs. Upgrade

You use different procedures when you are migrate a WFM 6.5 database, than when you update a 7.x or 8.x database, because the WFM database design was changed after the 6.5 release.

To migrate your 6.5 data, you first create a new 7.x or 8.x database, complete with new tables. Then, you migrate (move) your 6.5 data to the new database, by copying and pasting.

To update 7.x or 8.x to a later version of WFM, you make only minor modifications in the existing database (because the 7.x and later databases are similar). In other words, you do not migrate (move) the data, but simply modify (update) it.

In both cases, use the following steps:

1. "First: Prepare for Down Time" on page 889
2. "Next: Backup Your Database" on page 890
3. "Next: Migrate or Update the Database" on page 890
4. "Finally: Verify Your Connections" on page 890

Follow the path that matches your starting point.

Prerequisites

Check the *Genesys Supported Operating Environment Reference Guide* for the supported platforms and databases, as well as the additional software required to operate WFM 8.1.3:

Genesys Framework Components

You must have deployed the following Genesys Framework components in your environment to support forecasting, scheduling, and adherence capabilities:

- DB Server
- Configuration Server
- Genesys Administrator or Configuration Manager
- T-Server
- Stat Server

Framework Version

For full interoperability with Workforce Management 8.1.3, the Genesys Framework components must be version 8.1 or higher. Using Workforce Management 8.1.3 with earlier versions of these components (6.5.1 and higher) limits use of the Configuration Wizards, Management Layer support, and Reason Code support.

When deploying WFM, all components must be within the same version stream. For example, if you are using an 8.1.1 database, ensure all other WFM components are version 8.1.1.

Workforce Management Version

You can migrate to WFM 8.1.3 from any WFM 6.5 version or update any WFM 7.x or 8.x version.

Warning! If you are currently running a version of Workforce Management earlier than 6.5.201.00, the WFM Database Utility must change the original database structure during the update process in such a way that you can no longer use your original database in your existing environment.

Genesys recommends that you back up your database before beginning your migration.

Database Sizing

Updating WFM 8.x The database size required for WFM 8.1.3 is approximately the same as for all 8.x versions of WFM.

Updating WFM 7.x The database size required for WFM 8.1.3 is approximately the same as for the 7.x version of WFM.

Migrating WFM 6.5 The ratio of a WFM 6.5 database to a WFM 8.x database is approximately 11:9. The WFM 8.x database is actually smaller than the WFM 6.5 database. However, forecast and schedule scenarios are stored in the 8.1.x database, rather than in a local or network file. When you add the space that is required to store scenarios, the database size needed for WFM 8.x comes to approximately the same size as that required for WFM 6.5.

Deploying Workforce Management

Before you deploy Workforce Management for your migration or upgrade, you must consider the following:

- The changes or new features in the release that you are migrating to and how they will affect your migration. See "Changes in WFM Releases".
- The order in which you should complete the migration tasks. See "Order of Migration" on page 889.
- What to do if you need to roll back your installation. See "Rolling Back the Installation" on page 891

Changes in WFM Releases

This section briefly describes changes to WFM from one release to the next. For a complete description of the changes and new features in WFM 8.x releases, see the *Workforce Management 8.1 Administrator's Guide*, or the WFM Help for the referenced component.

For a complete list of WFM system requirements (supported and discontinued) for each release, see the *Genesys Supported Operating Environment Reference Guide*.

Changes in WFM 8.1.3

- New features and functionality include:
  - Improved Controls in the WFM Web Interface
  - Agents Can Change Time Zone in WFM Web
  - New Security Options in WFM Configuration Utility and WFM Server
  - Restricted Access to Data Aggregator
  - Support for ETL Database
  - Backup-Restore Utility
- The order of some tabs in WFM Configuration Utility has changed.

- Some objects and functionality were moved from WFM Configuration Utility to WFM Web.
- WFM system requirements have changed with new and discontinued support.

Changes in WFM 8.1.2

- New features and functionality include:
  - Effective Date for Contracts, Rotating Patterns, and Activities
  - Automated Time Off Carry Over
  - View Web Agent Schedule on Mobile Devices
  - Contact Center Performance Report Enhancement
  - Forecast Splitting by Using Percentages
  - Forecast Staffing Totals Displayed in FTE or Man Hours
  - MSA Button Always On
  - System Security: Last Log In Timestamp
  - New WFM Splash Screen
  - Page Limit for Reports
- Some objects and functionality were moved from WFM Configuration Utility to WFM Web.

Changes in WFM 8.1.1

- New features and functionality include:
  - Automated Shrinkage Forecast
  - Selective Historic Forecasting
  - Schedule Audit and Rollback
  - Schedules Display with Time Zone Adjustments
  - Automated Time Off Wait List
  - Exception Management
  - Microsoft SQL Database Replication
  - Display Current Whole Day Data in Master Schedule Intra-Day.
  - Schedule States, Individual Schedule, and Weekly Schedule Reports include Employee ID
- WFM system requirements have changed with new and discontinued support.

Changes in WFM 8.1.

- New features and functionality include:
  - Shared Transport
  - Simultaneous Scheduling of Deferred Work Activities
  - Email Notification Enhancements
  - Build Schedule Scenarios based on Forecast Scenarios
  - Working Rules/Scheduling Constraints
  - Print Schedule Without Relying on the Browser
  - Estimate Time Off Limits Wizard
  - Compliance with Handicap Accessibility Regulations

- WFM supported system requirements includes new operating systems, databases, and virtual platforms.
- Native support of 64-bit executables on MS Windows 2008 R2 for WFM Server, Builder, Daemon, Data Aggregator.
- IPv6 support for WFM Server, Builder, Daemon, Data Aggregator, Database Utility, Configuration Utility, Web.
- Added system security through the use of Radius meta-message display.
- System secure data storage using encrypted data stored in Oracle 11g and MS SQL Server 2008.
- Secure communications between all WFM components through the use of Secure Socket Layer (SSL) and Transport Layer Security (TLS).

Changes in WFM 8.0

- New features and functionality include:
  - Time Off Management Report
  - Overtime management
  - Shrinkage tracking
  - Multi-site scheduling
  - Multi-site meeting scheduling
  - Split meeting scheduling
  - Configuration of WFM objects at business unit level
  - Agent-team history tracking
  - Configuration audit
- WFM supported system requirements includes new operating systems, databases, web browsers, and virtual platforms.

Changes from WFM 7.x

WFM 8.1.1 and later deployment—that is, configuration and installation of the components—is essentially the same as for version 7.x. Note that beginning with version 7.2, WFM Reports Server is no longer a separate installation package.

Changes from WFM 6.5

If you are currently running WFM 6.5, deploying Workforce Management 8.1.1 and later releases differs from your current version in two major respects:

- The installation of WFM components is now performed using separate installation packages rather than a single one.
- The increased capabilities of the WFM Web component eliminate the need to deploy a Windows-based client for many current WFM users. The majority of WFM users, with the exception of those who need to configure the WFM system and its working rules, use the browser-based WFM Web only.

When your database objects are migrated to a WFM 8.1.1 or later release, some terms have changed. See “New Terminology in Post-6.x Databases” on page 887 for a list of these changes.

Note: Forecast and schedule files located on client workstations are no longer available after migration.

To save these files, publish the forecasts and schedules you want to keep before beginning your migration. Published schedules and forecasts, which are saved to the database, are migrated with the rest of the data.

For the step-by-step installation and configuration procedures, see the *Workforce Management 8.1 Administrator's Guide*.

New Terminology in Post-6.x Databases

WFM 7.1.2 introduced several new terms and made some changes to existing configuration objects.

These tables provide only basic information about the changes. For detailed explanations of these, and all WFM objects, see the "Overview" and "Deployment Planning" chapters of the *Workforce Management 8.1 Administrator's Guide*.

Table 147: Terminology Changes from 6.5 to 7.x

Previous Term	Current Term
Virtual PABX	Business Unit
PABX, PBX, switch, location	Site
Exclusivity Sets	Activity Sets
Compliance Rules	Adherence Rules
PABX Time Offset Information	Daylight Saving Time Information
Activity	Activity
Virtual Activity	Multi-Site Activity
Activity Type	Activity Type
Scheduled Agent's State	Schedule State Group
Aux Code	Reason
Genesys Events	Agent State
Agent	Agent
Supervisor	Supervisor

Table 147: Terminology Changes from 6.5 to 7.x (Continued)

Previous Term	Current Term
Supervisor [in security configuration]	User, WFM User
Definitions Report	Properties Report
Activity Type: Phone Activity	Immediate Work
Activity Type: Multimedia Activity	Deferred Work
Activity Type: Exclusive Activity	Fixed-Staff Work
Workforce	Staffing
Vacation Planner [limits]	Vacation Day Limits
Time Information, Open Hours	Hours of Operation
Long Period	Schedule Planning Period
Meal, Break	Meal, Break
Employment Type	Contract
Shift	Shift
Working Hours	Paid Hours
Unpaid Time	Unpaid Hours
Total Hours	Total Hours (Paid Hours + Unpaid Hours)
[none]	Task
[none]	Task Sequence
Team	Team
CTI System Information	Agent Information
Employee Information	Agent Information
Carried Hours	Hours Carried Over or Carried Over Hours
Planner	Calendar
Meetings, Meeting Planner	Meetings, Meeting Planner
[none]	Calendar Item

Table 147: Terminology Changes from 6.5 to 7.x (Continued)

Previous Term	Current Term
Service Level Objectives	Service Level Objectives
Adherence (module name)	Performance (module name)
Agent Compliance	Agent Adherence
Real-Time Adherence	Real-Time Agent Adherence
Agents Logged In	Staffing
Current Status	Current State
Time in Noncompliance	Duration of Nonadherence
Compliance Adherence	
Print	Report

Order of Migration

The following topics and tasks apply to all migration procedures.

First: Prepare for Down Time

A period of down-time is inevitably associated with the database update. This down-time could be substantial (up to 1 day), depending on the amount of data are migrating. You must take this into account when scheduling your database update.

Note: Perf collection and the database update can be performed simultaneously. However, performance might be slow, due to the load on the database server while the WFM database is being updated.

Minimizing Down Time

If you are migrating a large data set, you can minimize your data collection downtime by using the procedure "Two-Step Migration" on page 896. Consult with Genesys Professional Services or Genesys Customer Care if you need recommendations for how best to plan this in your environment. Existing data will be migrated into it.

Next: Backup Your Database

Genesys recommends that you back up your database before beginning your migration or update.

If you are currently running a version of WFM earlier than 6.5.201.00, the WFM Database Utility automatically updates your existing database to 6.5.201.00 while migrating your data to the 7.x database. Doing so changes the original database structure in such a way that you can no longer use your original database in your existing environment.

If you have Workforce Management 6.5, the WFM Database Utility automatically performs the additional upgrades required before your data can be transferred to the new Workforce Management 7.x Database.

Note: Starting in 8.1.3, a beta version of the command-line WFM Backup-Restore Utility (BRU) is included in the WFM Database Utility (DBU) Installation Package (IP). Unlike the WFM DBU backup file (.MDB format), which has a maximum 2 Gb file size limit, the BRU uses a new backup file format (.DB) and has no file size limit. For more information about the BRU, see the *Workforce Management 8.1 Administrator's Guide*.

Next: Migrate or Update the Database

Complete one of the following procedures, depending on which release you are migrating or updating:

- "Update 8.x or higher to an 8.1.x Release" on page 891
  or
- "Update 7.x or higher to an 8.1.x Release" on page 893
  or
- "Migrate from 6.5 to an 8.1.x Release" on page 894

Finally: Verify Your Connections

If you experience any connectivity issues immediately after any migration or update:

- Check the Details sections of each Login screen to verify that your applications are pointing to the correct WFM Application objects.
- Verify that you have the correct connections specified on the Connections tabs of the Application objects for each component.
- In WFM Configuration Utility's Organization module, update:
  - Data Aggregator Name for each Business Unit object
  - Data Aggregator Name for each Site object
  - Data Aggregator for synchronization for each Site object

  - WFM Server for each Site object
- In WFM Configuration Utility's User Security module, update:
  - WFM Builder object for each user

Rolling Back the Installation

Procedure:
Rollback the Installation

Prerequisites

- Use this procedure ONLY if you need to restore your previous WFM installation.

Start of procedure

1. Stop Tomcat.
2. Uninstall the new WFM components.
3. Reinstall your old WFM components.
4. Use the Database Utility to restore the data from your backed-up old database into an empty database.

End of procedure

Repeat for all computers that run a WFM server in this installation.

Update 8.x or higher to an 8.1.x Release

Procedure:
Updating WFM 8.x or higher to WFM 8.1.x

Summary:

In this procedure, 8.1.x represents the particular release that you are updating to—for example, 8.1.0, 8.1.1, 8.1.2, or 8.1.3.

Start of procedure

1. Back up your 8.x WFM database.
2. Start DB Server and Configuration Server.

3. Stop and shut down the WFM applications and servers, including the servlet runner (WebSphere or Tomcat).
4. Use the following steps to delete WFM Web from Tomcat:
   a. Delete the `WFM .war` file and the `WFM` directory in the `$CATALINA_BASE\webapps` folder.
   b. Delete the `$CATALINA_BASE\work\Catalina\localhost\wfm` folder.
5. The *Workforce Management 8.1 Administrator's Guide* has instructions for where to place the `wfm.war` file if you are using Tomcat. If you are using WebSphere, consult your WebSphere documentation for the correct directory.
6. Uninstall your existing WFM components using the Windows `Add/Remove Programs` function.
7. Configure and install the version (to which you are updating: 8.1.1, 8.1.2, or 8.1.3) of the WFM components, following the procedure given in the *Workforce Management 8.1 Administrator's Guide*. This includes importing the latest application templates and creating new Application objects for all the WFM components.
8. Locate the WFM (8.1.x update) version of the `wfm.war` file. The default installation directory is `<Drive Letter>:\Program Files\GCTI\WFM81\Web\WFM_Web_81x`.

   You can verify that you have found the 8.1.x version of the `wfm.war` file by checking the version number in the `ip_description.xml` file, located in the same directory.
9. Copy the `wfm.war` file and paste it into the appropriate directory for your servlet runner.
10. Restart your servlet runner. Wait a minute or so and then open the directory in which you placed the `wfm.war` file. You should now see a new folder that called `wfm`.
11. Start the WFM Database Utility. You can start it by selecting it from `Start > Programs > Genesys Solutions > Workforce Management 8.1.x`.
12. Select the radio button for `Database Update` and then follow the instructions on the wizard screens that open. This updates your WFM database to the latest schema. All of your existing data is preserved.
13. Start all components and verify that all are working correctly.

End of procedure

Verify Your Connections

If you experience any connectivity issues immediately after migration, see this list of actions that you can take in response: "Finally: Verify Your Connections" on page 890.

Optional: Undo the Installation

If you need to "undo" your migration or update, use the procedure "Rolling Back the Installation" on page 891.

Update 7.x or higher to an 8.1.x Release

Procedure: Updating WFM 7.x or higher to WFM 8.1.x

Summary:

In this procedure, 8.1.x represents the particular release that you are updating to—for example, 8.1.0, 8.1.1, 8.1.2, or 8.1.3.

Start of procedure

1. Back up your WFM 7.x database.
2. Start DB Server and Configuration Server.
3. Stop and shut down the WFM applications and servers, including the servlet runner (WebSphere or Tomcat).
4. Use the following steps to delete WFM Web from Tomcat:
   a. Delete the `WFM .war` file and the `WFM` directory in the `$CATALINA_BASE\webapps` folder.
   b. Delete the `$CATALINA_BASE\work\Catalina\localhost\wfm` folder.
5. The *Workforce Management 8.1 Administrator's Guide* has instructions for where to place the `wfm.war` file if you are using Tomcat. If you are using WebSphere, consult your WebSphere documentation for the correct directory.
6. Uninstall your WFM 7.x components using the Windows `Add/Remove Programs` function.
7. Configure and install the WFM 8.1.x components, following the procedure given in the *Workforce Management 8.1 Administrator's Guide*. This includes importing the latest application templates and creating new Application objects for all WFM 8.1.x components.
8. Locate the WFM 8.1.x version of the `wfm.war` file. The default installation directory is `<Drive Letter>:\Program Files\GCTI\WFM81\Web\WFM_Web_81x`.

   You can verify that you have found the 8.1.x version of the `wfm.war` file by checking the version number in the `ip_description.xml` file, located in the same directory.

9. Copy the `wfm.war` file and paste it into the appropriate directory for your servlet runner.
10. Restart your servlet runner. Wait a minute or so and then open the directory in which you placed the `wfm.war` file. You should now see a new folder that called `wfm`.
11. Start the WFM Database Utility. You can start it by selecting it from `Start > Programs > Genesys Solutions > Workforce Management 8.1.x`.
12. Select the radio button for `Database Update` and then follow the instructions on the wizard screens that open. This updates your WFM database to the latest schema. All of your existing data is preserved.
13. Start all components and verify that all are working correctly.

End of procedure

Verify Your Connections

If you experience any connectivity issues immediately after migration, see this list of actions that you can take in response: “Finally: Verify Your Connections” on page 890.

Optional: Undo the Installation

If you need to “undo” your migration or update, use the procedure “Rolling Back the Installation” on page 891.

Migrate from 6.5 to an 8.1.x Release

Procedure: Migrating WFM 6.5 to WFM 8.1.x

Summary:

In this procedure, 8.1.x represents the particular release that you are migrating to—for example, 8.1.0, 8.1.1, 8.1.2, or 8.1.3

Prerequisites

- Install any necessary software in the list of prerequisites in “Prerequisites” on page 883 or in the *Genesys Supported Operating Environment Reference Guide*

Start of procedure

1. Create a new database. This will be your WFM 8.1.x database. All your existing data will be migrated into it.
2. Create a Database Access Point (DAP) for your new database.
3. Import the Workforce Management `Application` templates. Then run the WFM Configuration Wizards to create an `Application` object for each Workforce Management component and prepare them for use. Or, if you prefer, you can manually create and configure the component Application objects using Configuration Manager or Genesys Administrator.
   - Configuration instructions are located in Chapter 5 of the *Workforce Management 8.1 Administrator's Guide*.
   - Some notes describing how WFM 8.1.x deployment differs from that for previous releases appear in "Deploying Workforce Management" on page 884.
4. Install all WFM components from your software DVD. Installation instructions are located in Chapter 5 of the *Workforce Management 8.1 Administrator's Guide*.

   Note: You need to install only the WFM Database Utility in order to perform the data transfer from your previous database to the new one. However, if you install all components now, you can start them as soon as your database migration is complete.

5. Stop all WFM 6.5 components, except WFM Data Aggregator, including all Windows-based and web clients. This ensures that no changes are introduced into the 6.5 database during migration.
6. Start the WFM Database Utility.
7. Select the `Database Migration` option.
8. Follow the steps presented in the Database Migration Wizard that opens. The WFM Database Utility creates and formats your new database, setting up the necessary tables, views, indexes, and so on.

   Note: If you are migrating from WFM 6.5 and are using an Oracle database, make sure that the user who performs the migration has system privileges to create objects in the tablespace.

   The WFM Database Utility prompts you to specify your WFM 6.5 Workforce Manager client application. This identifies the source 6.5 WFM database. To connect to the 6.5 data source, the computer on which the WFM Database Utility is running must have the appropriate data source name (DSN) configured, as specified in the Workforce Management 6.5 `Workforce Manager Application` object.

The WFM Database Utility then copies your data from the source WFM 6.5 database to the newly created WFM 8.1.x database.

> **Warning!** Depending on the size of your database, this might require a considerable period of time, up to 1 day for particularly large quantities of data.

9. Locate the `WFM.war` file and move it to your Tomcat or WebSphere directory, as appropriate. Perform any other Tomcat-specific or WebSphere-specific configuration as detailed in "WFM Configuration Options" in the *Workforce Management 8.1 Administrator's Guide*.
10. Your migration should now be complete. You can now start your Workforce Management 8.1.x components.

End of procedure

Verify Your Connections

If you experience any connectivity issues immediately after migration, see this list of actions that you can take in response: "Finally: Verify Your Connections" on page 890.

Optional: Undo the Installation

If you need to "undo" your migration or update, use the procedure "Rolling Back the Installation" on page 891.

Two-Step Migration

If you have a large quantity of data to migrate from WFM 6.5 to WFM 8.1.x (in fact, to WFM 7.6 or higher), you may choose to do a two-step migration—which is also known as a large data set migration. Any migration interrupts performance data collection, and this procedure loses the smallest amount of data.

During a two-step migration, the WFM 6.5 Data Aggregator continues to run, collecting performance data for the migration period. This performance data is then transferred into the 8.1.x database during a second migration. This second migration takes a relatively brief time, and results in a minimal amount of uncollected data.

Warning! If you collect performance data from your 8.1.x WFM Data Aggregator *before* migrating the performance data collected by your 6.5 Data Aggregator, the 6.5 performance data overwrites the 8.1.x data for the same time period.

Procedure: Two-step Migration

Purpose: To lose a minimum of real-time data while migrating your database.

Summary:

In this procedure, 8.1.x represents the particular release that you are migrating to—for example, 8.1.0, 8.1.1, 8.1.2, or 8.1.3.

Prerequisites

- You are currently running WFM 6.5 and migrating to WFM 8.1.x.

Start of procedure

1. Shut down all WFM 6.5 components except Data Aggregator.
2. Perform the database migration as described in "Migrate from 6.5 to an 8.1.x Release" on page 894.
3. Start the WFM 8.1.x Data Aggregator. This ensures that new performance data is captured and written to the 8.1.x database during the time it takes to perform the performance data migration.
4. Optional: Shut down WFM 6.5 Data Aggregator. Shutting down WFM 6.5 Data Aggregator will make migration of the remaining 6.5 data faster.
5. Shut down WFM 8.1.x Database Utility.
6. Create the `AllowMigratePerformance` option in the WFM 8.1.x Database Utility application in Genesys Configuration Manager.

   See the section about setting options in "WFM Client Options" in the *Workforce Management 8.1 Administrator's Guide*. (The WFM Database Utility uses the same application object as the WFM Configuration Utility and is referred to as the *Client Application*.)
7. Set the `AllowMigratePerformance` option value to `1`.
8. Start your WFM 8.1.x Database Utility.

   Select the `Migrate Performance Data` option in the WFM Database Utility and follow the instructions on the wizard screens to perform the migration.Repeat the process for all computers that are to run a WFM server.

Note: Remember to select the correct time period for performance data migration, because all the data in 8.1.x for that period will be overridden. The selected period should start at the same moment that the first data migration started, and WFM 8.1.x Data Aggregator was started.

End of procedure

Troubleshooting

If you have problems with your migration, check that you have followed all procedures correctly and that all components are running and connected. In addition, you might encounter the issues described in the following sections. If you experience other difficulties, contact Genesys Customer Care.

Install the Microsoft ODBC Data Source

You may need to install the ODBC drivers before you can migrate your 6.5 database because 6.5 used the DSN and ODBC drivers. They are required to connect to the 6.5 database. To install the ODBC drivers, follow the instructions below.

Procedure: Install the ODBC Drivers

1. Run the Microsoft Data Access `(MDAC_Typ)` program.
2. Install both MDAC version 2.7 SP 1 or MDAC 2.8 and Jet version 4.0.

   You can download MDAC 2.7 SP 1 or MDAC 2.8 from `Downloads` on the Microsoft website at `http://www.microsoft.com`. Follow the download and installation instructions given on the website.
3. When you have finished installing MDAC and Jet, reboot your system.

End of procedure

Procedure: Select the ODBC Data Source

Purpose: To select and install the correct ODBC data source for your server.

Prerequisites

- You installed MDAC and Jet.

Start of procedure

1. After rebooting, select `Start > Control Panel`.
2. Select either `ODBC Data Sources` or `32-bit ODBC`, whichever appears in the Control Panel.

   The `ODBC Data Source Administrator` dialog box appears.
3. Select the `System DSN` tab.
4. Click `Add`.

   The `Create New Data Source` dialog box appears.
5. Select the correct ODBC driver for your server.
   - If you are using Oracle, select `Microsoft ODBC for Oracle driver`.
   - If you are using Microsoft SQL, select `SQL Server`.
6. Click `Finish`.

   The `Microsoft ODBC Setup` dialog box appears.
7. Specify the name of the data source and the server name (the alias) that was entered in the Oracle SQL*Net installation, or configure the Microsoft SQL connection properties as instructed in the Microsoft SQL Server DSN Configuration Wizard.
8. Click `OK`.

   The selected ODBC drivers are added to the list of installed System Data Sources.
9. Click `OK`.
10. Use the `ODBC Data Source Administrator` window to verify that the ODBC drivers were installed.

End of procedure

Install the Microsoft .NET Framework

The Microsoft .NET Framework Version 1.1 Redistributable Package is required to run the WFM Database Utility. If it is not installed already, install it. The Redistributable Package is available as a free download from the Microsoft website.

Verify Your Connections

If you experience any connectivity issues immediately after migration, see this list of actions that you can take in response: “Finally: Verify Your Connections” on page 890.

Part

16 Interaction Concentrator Migration

Interaction Concentrator collects and stores detailed data about the interactions and resources in customer interaction networks that use Genesys Framework (contact center, enterprise-wide, or multi-enterprise telephony and computer networks). Downstream reporting systems can access Interaction Concentrator data in near real time.

Note: Updates made in 8.1.5 and later releases are documented in the Interaction Concentrator Migration Guide located on the Genesys Documentation web site.

The online material includes only changes between the information provided in this Guide and the most recent updates. This Guide remains the source for the basic migration procedure.

The chapters in this section describe the following migration scenarios:

- Migration to Interaction Concentrator release 8.x
- Migration to Interaction Concentrator release 7.6.0 or 7.6.1
- Migration to Interaction Concentrator release 7.5

They also discuss component changes and the other Genesys software that supports and enables Interaction Concentrator 7.x and 8.x functionality.

The information is divided into the following chapters:

- Chapter 47, "Migration Order for Interaction Concentrator," on page 903 discusses the preliminary migration procedures and the migration order for migrating to Interaction Concentrator 7.x and 8.x.
- Chapter 48, "Changes in Interaction Concentrator," on page 911 provides information about changes in components, configuration options, and the Interaction Database (IDB) that you need in order to upgrade Interaction Concentrator from one release to the next.

- Chapter 49, “Migration Procedures for Interaction Concentrator,” on page 949 presents the procedures for migrating to Interaction Concentrator 7.x and 8.x.

Note: Interaction Concentrator release 7.2.000.09 was the first release of Interaction Concentrator.

Chapter

47 Migration Order for Interaction Concentrator

This chapter discusses the preliminary migration procedures and the migration order to migrate to Interaction Concentrator (ICON) 7.5, 7.6, 8.0 and 8.1.

There are three main sections in this chapter:

Note: Updates made in 8.1.5 and later releases are documented in the Interaction Concentrator Migration Guide located on the Genesys Documentation web site.

The online material includes only changes between the information provided in this Guide and the most recent updates. This Guide remains the source for the basic migration procedure.

Preliminary Migration Procedures

Operating System and RDBMS Upgrades

Before you begin the migration, you might need to upgrade the operating system and/or relational database management system (RDBMS) for the Interaction Concentrator release to which you are migrating. To determine whether you need to upgrade your operating system or RDBMS, see the information about discontinued support in Table 148 on page 913 (for migration to release 8.1), Table 149 on page 917 (for migration to release 8.0) or Table 150 on page 921 (for migration to release 7.x). For full information about the operating systems and databases that Interaction Concentrator supports, consult the *Genesys Supported Operating Environment Reference Guide*.

Preliminary Genesys Product Migration Procedures

The process for migrating Interaction Concentrator includes the following preliminary procedures:

1. Review "Migration Roadmap," Chapter 1 of this guide.
2. Examine the order in which you should upgrade the Genesys software that is required for the Interaction Concentrator release to which you are migrating. See "Order of Migration" on page 905.
3. Examine the component changes for Interaction Concentrator. See "Component Changes for Interaction Concentrator" on page 912. You might also want to examine the option changes described in "Changes to Configuration Options for Interaction Concentrator" on page 924.

   Note: These tables discuss only those changes that directly affect the migration of this product. For complete information about "What's New in This Release" of Interaction Concentrator and how the release functions, see the *Interaction Concentrator Deployment Guide* for the applicable release. For a complete list of documentation relevant to the migration of this product, see "Reference Materials".

4. Review the licensing requirements to support Interaction Concentrator.

   Note: Interaction Concentrator itself does not require a license. However, other components with which Interaction Concentrator interoperates do require licenses, and these might need to be migrated. See "Licensing Migration," Chapter 2 of this guide and the product documentation for the particular component.

5. Check the interoperability of Interaction Concentrator components during the upgrade procedures. See "Interoperability Among Interaction Concentrator Components" on page 908.
6. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and *Gplus* Adapters Interoperability.
7. Review other issues pertaining to the migration of Interaction Concentrator. See "Additional Information about Migration" on page 908.

Reference Materials

- *Interaction Concentrator Deployment Guide* for the release to which you are migrating
- *Interaction Concentrator User's Guide* for the release to which you are migrating

- *Interaction Concentrator Physical Data Model* for your particular RDBMS, for the release to which you are migrating
- *Genesys Interoperability Guide*
- *Genesys Supported Operating Environment Reference Guide*

Order of Migration

This section is specific to the components (applications) that enable and support Interaction Concentrator.

Multi-Site/Single-Site and Multi-Tenant Migration

Whether you migrate all sites or all tenants simultaneously depends on your specific Interaction Concentrator deployment.

All tenants served by a single ICON instance are migrated simultaneously. Similarly, in a multi-site deployment, all the sites served by a single ICON instance are migrated simultaneously. If each site or tenant is served by one or more separate ICON instances, each instance is upgraded independently.

In a deployment with multiple IDBs, each is upgraded independently.

In a multi-site deployment with multiple ICON instances, it is possible to interoperate different releases at different sites, provided that each site also has its own IDB or provided that, because of different ICON roles, it is not necessary for the information from the separate ICONs to be merged in the centralized IDB.

In a multi-site deployment with multiple ICON instances, if the migration for all the sites is performed sequentially while all ICON processing is stopped, it does not matter in what order you upgrade the ICON instances or IDB. However, if you plan to migrate all the sites over a period of time during which releases of Interaction Concentrator are interoperating, ensure that the first ICON instance you migrate is the one performing the cfg role.

For detailed information about the upgrade steps, see “Migration Procedures” on page 956.

Note: An ICON instance that has been upgraded to a later release *cannot* write data to an earlier version of IDB. Do not start any upgraded ICON instances until you have also upgraded IDB to the appropriate schema version.

Migrating from Interaction Concentrator 7.2, 7.5, 7.6 or 8.0

Migrate or upgrade the application components of Interaction Concentrator, the other enabling software, and the relevant data for this Interaction Concentrator in the following order:

Note: See procedures detailing this order in Chapter 49, "Migration Procedures for Interaction Concentrator," on page 949.

1. Migrate Management Framework.

   Note: You can migrate to the 7.5 or 7.6 Configuration Layer or Management Layer while still using 7.2 Interaction Concentrator components. Similarly, you can migrate to the 8.x Configuration Layer or Management Layer while still using 7.x Interaction Concentrator components.
   Refer to the relevant version of the *Framework Deployment Guide* for planning considerations and deployment instructions for the Framework Configuration and Management Layers.

   Management Framework is the foundation for all Genesys products, solutions, and options.

   For information about migrating the layers and components of Management Framework, see "Framework Migration" in this guide.

2. Upgrade other prerequisite Genesys components (for example, T-Server or Interaction Server), as applicable for your deployment.

   For information about the minimum releases of products that are required for full Interaction Concentrator release 7.x or 8.x functionality, see the chapter about deployment planning in the *Interaction Concentrator Deployment Guide* for the applicable release. You might also refer to the *Genesys Interoperability Guide*.

   When upgrading many components, determine if the first component you upgrade to release 7.x or 8.x is backward compatible with the 6.x and 7.x components that have not been upgraded yet. See "Interoperability Among Interaction Concentrator Components" on page 908.

3. Update the contact center configuration (for example, Place Groups, Agent Groups, and DNs).

4. Migrate Interaction Concentrator. For full details, see Chapter 49, "Migration Procedures for Interaction Concentrator," on page 949.

5. Migrate routing strategies.

6. Migrate Agent Desktop.

Interoperability Among Interaction Concentrator Components

The term *interoperable* means that different versions of Genesys solutions, components, or options can work together compatibly during the migration process.

Interoperability of Genesys products can occur at two levels of migration:

- **Interoperability at the suite level** means combining different versions of solutions and options during the migration process.
- **Example**: You can migrate to the Configuration and Management Layers of Framework 8.x while still using 7.x components. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and *Gplus* Adapters Interoperability.
- **Interoperability at the solution-specific level** means combining different versions of the components of a particular solution while upgrading them sequentially during the migration process.

  The mixture of components may include executables, applications, routing strategies, scripts, and data that comprise a particular solution.

  As you upgrade each of the components in sequence, you need to know if it is backward-compatible with the other components of Interaction Concentrator.

  Example: If you have four components to upgrade, determine if the first component you upgrade to version 8.x is backward compatible with the three 7.x components that are not upgraded yet.

Additional Information about Migration

The following information is also pertinent to the migration of Interaction Concentrator.

- You can migrate Interaction Concentrator from any version of release 7.5 or 7.6 directly to release 8.x.
- You can migrate Interaction Concentrator from any version of release 7.2 directly to release 7.5 or 7.6.
- To migrate Interaction Concentrator 7.2 to 8.x, first, migrate to release 7.5 or 7.6 and then migrate to release 8.x.
- ICON processing must be suspended while the Interaction Concentrator migration is occurring. The content of the persistent queue file (icon_**.pq) is lost as a result of the upgrade. To minimize the loss of data, perform the upgrade when the contact center load is minimal.

- Stopping ICON does not stop the execution of any stored procedures that may be running or scheduled to run during the upgrade. In particular, if the merge or purge stored procedures are executing when you run the database scripts, these stored procedures are not successfully dropped and then re-created. You are not notified if you did not upgrade these service procedures correctly.

  To prevent this error, ensure that no stored procedures are running when you perform the upgrade. If you have automated the merge or purge procedures to run on a regular schedule, stop the schedule before you begin the upgrade. Genesys recommends that you allow enough time for two iterations of the merge procedure to complete before you start the upgrade, in order to ensure that the gsysIRMerge stored procedure is not still in use or locked during the upgrade.
- You cannot migrate from a non-partitioned IDB to a partitioned IDB, or vice versa. If you want to start or stop using partitions, you must create a new IDB. (Partitioning is available on Oracle RDBMSs only.)

  For detailed information on this topic, see the "Purging by Truncating Partitions" section of the *Interaction Concentrator 8.1 User's Guide*.

Note: For an overview about migration issues, see "Migration Roadmap," Chapter 1 of this guide.

Chapter

48 Changes in Interaction Concentrator

This section provides information that you need to upgrade the components and configuration options of Interaction Concentrator from one release to the next. This section discusses only changes (additions, deletions, and modifications) in the product that need specifically to be addressed during the migration process. The product documentation for each release contains a comprehensive list of changes from release to release. In particular, review the "New in This Release" section of the latest *Interaction Concentrator Deployment Guide*.

There are three sections in this chapter:

Note: Updates made in 8.1.5 and later releases are documented in the Interaction Concentrator Migration Guide located on the Genesys Documentation web site.

The online material includes only changes between the information provided in this Guide and the most recent updates. This Guide remains the source for changes made in earlier releases.

Component Changes for Interaction Concentrator

Table 148 on page 913 lists the component changes for Interaction Concentrator from release 8.0 to release 8.1.

Table 149 on page 917 lists the component changes for Interaction Concentrator from release 7.6.x to release 8.0 releases.

Table 150 on page 921 lists the component changes for Interaction Concentrator from release 7.2 to release 7.6.x releases.

For information about new features and functions in Interaction Concentrator 7.x or Interaction Concentrator 8.x, see the *Interaction Concentrator Deployment Guide* and the *Interaction Concentrator User's Guide* for the applicable release.

The following significant changes in functionality were made in 8.1.x releases. For a more complete list of new and updated functionality made during General releases, see the "New in This Release" section of the *Interaction Concentrator 8.1 Deployment Guide.* See also the Release Notes for changes made in intervening hot fix releases.

Table 148: Component Changes from 8.0 to 8.1

Current Component Name	Type of Change	Change Occurred in Release #	Details
ICON Server	New functionality	8.1.4	Capture of additions, edits, and deletions of values for certain configuration options related to Genesys Interactive Insights access roles. These options are configured on the Annex tabs of Person and Agent Group objects, DN and DN Group objects, and Switches.
	New functionality	8.1.4	Recognize and collect data associated with the out-of-signaling-path feature of SIP Server. ICON stores G_IS_LINK records within a call in the order they were initially added by SIP Server.
	New functionality	8.1.4	Support for new attributes in EventTransactionStatus that provide all necessary information to capture IS_LINK data on "post-mortem" calls transferred from an outside switch—that is, transfers for which ICON receives information after call deletion.
	New functionality	8.1.4	Support for unresponsive process detection.
	New functionality	8.1.4	Hide TEvent Attached Data attributes based on log configuration. For details on this functionality and how to configure it, see the *Genesys 8.1 Security Deployment Guide*.
	New functionality	8.1.4	Support for encrypted RDBMSs. For details on this functionality and how to configure it, see the *Genesys 8.1 Security Deployment Guide*.
	New supported platform	8.1.4	Windows Server 2012 64-bit native

Table 148: Component Changes from 8.0 to 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release #	Details
Interaction Database (IDB)	Modified functionality	8.1.4	Adjust SQL script file names to enable automated upgrade of IDB.
	New supported database versions	8.1.4	• Oracle 12c and 12c RAC • Microsoft SQL Server 2012
	Discontinued support for database versions	8.1.4	Oracle 10g and 10g RAC
ICON Server	New functionality	8.1.2	Support for IDB installed on PostgreSQL. The initial release supports only PostgreSQL v9.1.
	New functionality	8.1.2	Support for dynamic updates when the host and port information changes for any T-Server added to the Connections tab of the Interaction Concentrator Application object.
	New functionality	8.1.2	Support for client-side port definition. For details on this functionality and how to configure it, see the *Genesys 8.1 Security Deployment Guide*.
	New functionality	8.1.2	Supports purging of the persistent queue (PQ) file upon ICON startup. Also enables you to set a maximum size for the PQ file after which puging is automatically triggered.
	New supported platforms	8.1.2	• Red Hat Enterprise Linux 6.0 64-bit native • Windows Server 2008 64-bit native

Table 148: Component Changes from 8.0 to 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release #	Details
Interaction Concentrator (ICON) Server	New functionality	8.1.1	Support for a restricted release of SIP Cluster. For information on Genesys SIP Cluster technology, contact your Genesys representative.
	New functionality	8.1.1	Improved purging for Oracle databases with partitioning, enabling efficient purging by truncating entire partitions. For configuration instructions, see the Interaction *Concentrator 8.1 Deployment Guide*. For a detailed discussion of how to perform purging by truncating partitions, see the *Interaction Concentrator 8.1 User's Guide*. **Notes:** • Review the *Deployment Guide* and *User's Guide* before performing any steps to implement this functionality. • You cannot migrate from a non-partitioned IDB to a partitioned IDB, or vice versa. If you want to start or stop using partitions, you must create a new IDB. (Partitioning is available on Oracle RDBMSs only.) For detailed information on this topic, see the "Purging by Truncating Partitions" section of the *Interaction Concentrator 8.1 User's Guide*.
	New functionality	8.1.1	Enhanced data security with support for TLS & TLS FIPS for the connection between ICON and T-Server.
	Operating system support added	8.1.1	• IBM AIX 7.1 64-bit • Red Hat Enterprise Linux 5 64-bit native
	Enhancement	8.1	Enhancement to capture Outbound Number dialed in DNIS field.
	New functionality	8.1	Support for Virtual Queue timestamps as provided by Universal Routing Server.

Table 148: Component Changes from 8.0 to 8.1 (Continued)

Current Component Name	Type of Change	Change Occurred in Release #	Details
Interaction Concentrator (ICON) Server (continued)	New functionality	8.1	Provide data about clearing Virtual Queues in scenarios in which a call or an interaction is routed and abandoned.
	New functionality	8.1	Support single ICON-IDB in topologies involving IVR T-servers in an in-front configuration, in load-balancing mode.
	New functionality	8.1	Support for License Reporting Manager. This includes a new role, lrm, to be assigned to the ICON supporting License Reporting Manager.
	New functionality	8.1	Support for TCP/IPv6.
	Operating system support added	8.1	• HP-UX IPF 11.31 • Red Hat Enterprise Linux 5 (64-bit compatibility mode)
	Operating system support discontinued	8.1	• Red Hat Enterprise Linux AS v3 - 32 bit • Sun Solaris/SPARC 8 OS, including 32 and 64 bit • HP Compaq Tru64 Alpha - all versions • IBM AIX 5.1 and 5.2 OSs, including 32 and 64 bit.
IDB	RDBMS support added	8.1	• Oracle 11g RAC • IBM DB2 v9.7
	RDBMS support discontinued	8.1	Oracle 9

The following significant changes in functionality were made in 8.0.x releases. For a complete list of new and updated functionality made during General releases, see the "New in This Release" section of the *Interaction Concentrator 8.0 Deployment Guide.* See also the Release Notes for changes in intervening hot fix releases.

Table 149: Component Changes from 7.6.x to 8.0

Current Component Name	Type of Change	Change Occurred in Release #	Details
Interaction Concentrator (ICON) Server	New functionality	8.0.000.35	The GSYS80purge procedure replaces the GSYS76purge procedure. The new purge procedure purges Outbound Contact data, as well as voice and multimedia interaction data, attached data, and agent login session data. It supports both the previously used YYYYMMDD date format for the gsys_partition field and the UTC date format. The format used is determined by the setting for the partition-type configuration option.
	New functionality	8.0.000.27	When ICON establishes a connection to a data-source server (T-Server, Interaction Server, Outbound Contact Server, or Configuration Server) in accordance with its assigned role, ICON now creates a record in the corresponding G_DSS_*_PROVIDER table. Until the first event is recorded on the connection, the values of the first and last event timestamps are null (for Date fields) or 0 (for Int fields) and the NODATA_IUTC field is updated according to the value of the dss-no-data-tout option.

Table 149: Component Changes from 7.6.x to 8.0 (Continued)

Current Component Name	Type of Change	Change Occurred in Release #	Details
Interaction Concentrator Server (continued)	New functionality	8.0.000.25	ICON supports the NoData indication in the G_DSS_*_PROVIDER tables for the gos and cfg data providers. Previously, the NoData indication was available only for the gcc, gud, and gls data providers.
	New functionality	8.0	Supports the configuration in which a network switch and multiple related Network T-Servers operate in load-balancing mode. In this kind of configuration, one ICON instance is able to create and maintain connections to multiple Network T-Servers working with the same switches in load-balancing mode.
	New functionality	8.0	Reliably indicates whether the endpoint associated with a party is an IVR device.
	New functionality	8.0	Properly handles user data that is updated by a routing strategy or an agent after the party's association with the interaction has been terminated (for example, the call was transferred).
	New functionality	8.0	Identifies whether the UserEvent that caused a record to be written to a custom states table came from a device at a time when that device was participating in an active call.

Table 149: Component Changes from 7.6.x to 8.0 (Continued)

Current Component Name	Type of Change	Change Occurred in Release #	Details
Interaction Concentrator Server (continued)	New functionality	8.0	Enables downstream reporting applications to identify when data was not available and to evaluate the reliability of available data provided by T-Server, Interaction Server, Outbound Contact Server (OCS), and Configuration Server. As a corollary, provides a mechanism for downstream reporting applications, such as Genesys Info Mart, to support High Availability (HA) for configuration, voice, multimedia, and Outbound Contact Solution data when one of a pair of ICON instances fails.
	New functionality	8.0	For deployments that use T-Server release 8.0 for the Alcatel A4400/OXE and Avaya switches, provides sufficient information at the call and party level for downstream reporting applications to determine which party (caller or receiver) released the call. **Note:** For Avaya switches, this functionality requires T-Server for Avaya Communication Manager release 8.0.101.05 or higher.
	New functionality	8.0	If a virtual queue is involved in routing an interaction, stores information in IDB to identify the virtual queue. **Note:** Requires Universal Routing Server (URS) release 8.0, configured to attach the virtual queue DBID as user data.

Table 149: Component Changes from 7.6.x to 8.0 (Continued)

Current Component Name	Type of Change	Change Occurred in Release #	Details
Interaction Concentrator Server (continued)	Operating system support added	8.0	Now additionally supports the following operating systems: • IBM AIX 64-bit version 6.1 • Red Hat Enterprise Linux AS Edition version 5.0, for 32-bit Intel platform • HP-UX/PA 64-bit version 11i v3 • Microsoft Windows Server 2008 on 32-bit and 64-bit platforms
	Operating system support discontinued	8.0	No longer supports the following operating systems: • Microsoft Windows Server version Win2000 on 32-bit Intel processors • Solaris/SPARC 32-/64-bit version 7 • HP-UX/PA 32-/64-bit version 11.00
	Virtual environment support added	8.0	Now supports the following virtual environments: • IBM PowerVM LPAR • Sun Solaris Containers
IDB	RDBMS support added	8.0	Now additionally supports the following RDBMSs: • Oracle 11g • Microsoft SQL Server 2008 • IBM [illegible]
	RDBMS support discontinued	8.0	No longer supports Microsoft SQL Server version 2000.
	Schema modified	8.0	For information about the schema changes, see Table 155 on page 939.

The following significant changes in functionality were made in 7.x releases. For a complete list of new and updated functionality made during General releases, see the "New in This Release" section of the *Interaction*

Concentrator Deployment Guide for the associated release. See also the Release Notes for changes in intervening hot fix releases.

Table 150: Component Changes from 7.2 to 7.6.x

Current Component Name	Type of Change	Change Occurred in Release #	Details
Interaction Concentrator Server	New functionality	7.6.100.10	• Supports a larger number of active Multimedia interactions concurrently. • Provides the ability to filter out some Multimedia data that is not relevant to reporting. • Provides a new purging mechanism—gsysPurge76— for voice and Multimedia data stored in Interaction Database (IDB). • Improved performance for purging voice data that is stored in IDB using the new purging mechanism. • Improvements made in the recognition of certain multi-site scenarios.
	New functionality	7.6.000.16	• Provides the ability to resynchronize the configuration data in IDB with Configuration Database on demand • Enables database size optimization by providing a filtering mechanism for certain types of data • Supports media types for Open Media in all the areas where e-mail and non-SIP data were previously supported • Supports reporting on SIP chat. • Provides an ability to identify if a chat session has the focus. • Provides an ability to report after-call work (ACW) for the first interaction associated with ACW. • Provides the ability to suppress the interruption of the ACW and NotReady agent states by interactions coming to, or produced by, the agent.
	Functionality changed	7.6.000.16	Improvements in merge procedure (gsysIRMerge) performance.

Table 150: Component Changes from 7.2 to 7.6.x (Continued)

Current Component Name	Type of Change	Change Occurred in Release #	Details
Interaction Concentrator Server (continued)	New functionality	7.5.000.22	Provides the ability to resynchronize the configuration data in Interaction Database (IDB) with Configuration Database on demand.
	Functionality changed	7.5.000.22	Improvements in the purge stored procedure (gsysPurgeIR).
	New functionality	7.5.000.19	Provides the ability to filter out data related to a service observer on a call (see [filter-data] observer-party).
	New functionality	7.5.000.16	Provides a new set of stored procedures to purge merged voice interaction data from IDB: • gsysPurgeIR • gsysPugeUDH • gsysPurgeLS • gsysPurgeOS
	Operating system support added	7.5.000.12	Now supports the following operating systems: • IBM AIX 32-/64-bit versions 5.1, 5.2, and 5.3 • Microsoft Windows Server versions Win2000 and 2003 on 32-bit Intel processors • Microsoft Windows Server version Windows 2003 x64 • Solaris/Sparc 32-/64-bit versions 2.7, 8, 9, and 10 • Red Hat Enterprise Linux AS Edition on 32-bit Intel platforms, versions 3.0 and 4.0 • HP-UX PA 32-/64-bit versions 11.0 and 11.11 • HP Compaq TRU64/Alfa versions 4.0F, 5.1, and 5.1B • HP-UX IPF 64-bit version 11i ver. 2 (new)

Table 150: Component Changes from 7.2 to 7.6.x (Continued)

Current Component Name	Type of Change	Change Occurred in Release #	Details
Interaction Concentrator Server (continued)	Operating system support discontinued	7.5.000.12	No longer supports the following operating systems: • IBM AIX 4.x line • Solaris Sparc version 2.6
	New functionality	7.5.000.12	Supports reporting about: • Multimedia interactions (e-mail and chat), including agent state and login session reporting and attached data processing • Virtual queue usage in voice and Multimedia interaction processing • Virtual Routing Point (VRP) usage in call processing • Interactions generated in a network-based Contact Solution environment • Interactions generated in a Network Call Parking environment • Custom agent states and common data • Custom attached data processing
	Functionality changed	7.5.000.12	The design of the stored procedure to resolve stuck calls (gsysStuckResolver) has changed. The stored procedure no longer uses a configured timeout. ICON automatically calls the stored procedure on startup in order to resolve stuck calls. In the event of a disconnection, ICON uses a different internal mechanism to clean up stuck calls on reconnect. The user does not execute the stored procedure.
IDB	Schema modified	7.6.100.19	New IDB schema version: 7.6.100.09. For information about the schema changes, see Table 157 on page 941.
	Schema modified	7.6.100.10	New IDB schema version: 7.6.100.07. For information about the schema changes, see Table 157 on page 941.

Table 150: Component Changes from 7.2 to 7.6.x (Continued)

Current Component Name	Type of Change	Change Occurred in Release #	Details
IDB (continued)	Schema modified	7.6.000.16	New IDB schema version: 7.6.000.15. For information about the schema changes, see Table 157 on page 941.
	New functionality	7.6.000.16	Stores extended metrics for virtual queue usage in interaction processing.
	Schema modified	7.5.000.22	New IDB schema version: 7.5.000.06. For information about the schema changes, see Table 157 on page 941.
	Functionality changed	7.5.000.22	The design of the merge and purge procedures has changed.
	New functionality	7.2.000.17	Interaction Concentrator now captures the information required to support detailed reporting about virtual queue usage in interaction processing. IDB schema version 7.2.000.11 or above is required for this functionality.
	Schema modified	7.2.000.14	IDB schema version changed from 7.2.000.07 (in the initial release of Interaction Concentrator) to 7.2.000.11. For information about schema changes, see Table 157 on page 941.

Changes to Configuration Options for Interaction Concentrator

Table 151 on page 925 lists the changes to Interaction Concentrator–related configuration options made between the 8.0 and 8.1 releases.

Table 152 on page 929 lists the changes to Interaction Concentrator–related configuration options made between the 7.6.x and 8.0 releases.

Table 153 on page 931 lists the changes to Interaction Concentrator–related configuration options made between the 7.2 and 7.6.x releases.

For more detailed descriptions of all the ICON options, refer to the *Interaction Concentrator Deployment Guide*.

The following configuration options were added or changed in functionality in 8.1.x releases. For complete documentation of all configuration options, see the chapter on configuration options in the *Interaction Concentrator 8.1 Deployment Guide*.

Table 151: Configuration Option Changes from 8.0 to 8.1

[Section] Option Name	Type of Change	Change Occurred in Version #	Details
ICON Object			
[callconcentrator] cfg-annex	Added	8.1.4	Enables ICON to gather and store data on changes to certain configuration objects related to Genesys Interactive Insights access roles that appear on the Annex tabs for Person, Agent Group, DN, DN Group, and Switch objects.
DN Object			
[gts] do-not-register	Added	8.1.200.18	Enables you to prevent ICON from registering specified DNs. ICON does not receive any events from these DNs and processes data from these DNs as external.
ICON Object			
[callconcentrator] pq-startup-purge	Added	8.1.2	Controls the purging of the persistent queue (PQ) file. You can choose never to purge the PQ file, always to purge it, or you can set the maximum size after which the purge procedure purges the PQ file. The purge procedure runs only at ICON startup.

Table 151: Configuration Option Changes from 8.0 to 8.1 (Continued)

[Section] Option Name	Type of Change	Change Occurred in Version #	Details
[callconcentrator] cseq-adjustment	Added	8.1.000.37	Specifies whether ICON implements enhanced behavior when populating the CSEQ field in the G_USERDATA_HISTORY table. The enhancement offers improved sequence tracking for user data in the G_USERDATA_HISTORY table, which enables downstream reporting applications, such as Genesys Info Mart, to correctly associate user data with interaction activity when user data updates occur within the same second as call transfer or termination. To preserve compatibility with legacy behavior, cseq-adjustment enables you to control whether or not ICON implements the improved behavior.
[callconcentrator] gls-enforce-reason-code	Added	8.1.000.37	ICON support for the processing of software (SW) and hardware (HW) reason code changes for multi-device login sessions has been enhanced. ("Multi-device login sessions" refers to scenarios in which an agent logs in to a DN and to one or more queues at the same time.) The gls-enforce-reason-code option enables you to control whether SW and HW reason code changes are processed separately for separate devices.
[gts] third-party-queue-in-divert	Added	8.1.000.34	Enables you to have Interaction Concentrator take into account AttributeThirdPartyQueue in EventDiverted when AttributeCallState has a value of 0 in order to process interactions in the same way as for redirect scenarios. **Note:** Currently only T-Server for Avaya Communication Manager release 7.6 and higher supplies AttributeThirdPartyQueue.

Table 151: Configuration Option Changes from 8.0 to 8.1 (Continued)

[Section] Option Name	Type of Change	Change Occurred in Version #	Details
Switch Object			
[gts] gls-improve-data-for-agent	Added	8.1.100.34	Specifies when ICON processes agent state data in two-step transfer and conference scenarios. By default, the legacy behavior continues, and EventCallDeleted triggers agent state data processing. Set a value of 1 to enable ICON to process agent state data based on EventReleased and store a more accurate value of PartyID in the G_AGENT_STATE_HISTORY table when a record describes one of the following: • An agent state change from Busy to another state • An agent state change from Busy to Busy • An agent state change to ACW
ICON Object			
[callconcentrator] cfg-auto-resync	Added	8.1.000.24	When ICON is configured with the cfg role, enables you to have ICON automatically resynchronize with Configuration Server when it detects an inconsistency between the cfg IDB and Configuration Server data.
[log] x-server-http-trace-level	Added	8.1.000.24	Specifies the verbosity with which ICON logs messages that are related to its HTTP communications.
[log] x-server-smtp-trace-level	Added	8.1.000.24	Specifies the verbosity with which ICON logs messages that are related to its SMTP communications.
[log] x-server-dbw-debug-level	Added	8.1.000.24	Specifies whether data written into the persistent queue and IDB is printed to the log.

Table 151: Configuration Option Changes from 8.0 to 8.1 (Continued)

[Section] Option Name	Type of Change	Change Occurred in Version #	Details
[log] x-server-config-trace-level [log] x-server-dbw-trace-level	Modified	8.1.000.24	The values of these options no longer depend on the value of the x-server-trace-level option.
[log] x-server-sip-debug-level [log] x-server-config-debug-level [log] x-server-gcti-debug-level	Deprecated	8.1.000.24	Use the corresponding trace log options instead (x-server-config-trace-level, x-server-gcti-trace-level).
[callconcentrator] advanced-ext-party-reconstruction	New option	8.1.000.16	For environments using SIP Server, Interaction Concentrator (ICON) now supports call scenarios in which a call is sent from a monitored to an unmonitored site, and no party associated with the call remains on the monitored site. In these scenarios, the external party to which the call was sent can be reconstructed and stored in IDB. For detailed information on the option, see the *Interaction Concentrator 8.1 Deployment Guide*.
[callconcentrator] route-res-vqid-hist-enabled	New option	8.1	Specifies whether Virtual Queue IDs associated with G_ROUTE_RESULT records are stored in the G_ROUTE_RES_VQ_HIST table.
[callconcentrator] http-protocol-enabled	New option	8.1	When set to true, enables an HTTP connection to the main ICON port.

Table 151: Configuration Option Changes from 8.0 to 8.1 (Continued)

[Section] Option Name	Type of Change	Change Occurred in Version #	Details
Switch Object			
[gts] gts-dnis-detection	New option	8.1	Specifies how the value of DNIS is determined for outbound calls.
[gts] switch-multi-links-enabled	Option name has changed	8.1	The switch-multi-links-enabled option replaces the load-balancing-on-ntwk-switch option. This option should be used only in a configuration in which Network T-Servers or IVR T-Servers are working in load-balancing mode; that is, when there is no duplication in notification events received in ICON via connections to these T-Servers. Currently, load balancing mode is supported only for Network T-Servers and IVR T-Servers.

The following configuration options were added or changed in functionality in 8.0.x releases. For complete documentation of all configuration options, see the chapter on configuration options in the *Interaction Concentrator 8.0 Deployment Guide*.

Table 152: Configuration Option Changes from 7.6.x to 8.0

[Section] Option Name	Type of Change	Change Occurred in Version #	Details
ICON Application Object			
[callconcentrator] dest-busy-processing	New option	8.0.000.37	Enables you to specify dynamically how to handle `EventDestinationBusy` TEvents.
[callconcentrator] partition-type	New option	8.0.000.35	Dynamically specifies the content of the `gsys_partition` field in IDB tables that contain this field.
[callconcentrator] udata-truncated-alarm	New option	8.0.000.35	Controls whether a log message notifies you when user data has been truncated. You must create this option to set a value for it. For details, see the *Interaction Concentrator 8.0.x Release Note*.

Table 152: Configuration Option Changes from 7.6.x to 8.0 (Continued)

[Section] Option Name	Type of Change	Change Occurred in Version #	Details
[callconcentrator] dss-no-data-tout	New option	8.0.000.27	Specifies the time interval after which, if no new data has been written to the persistent queue, ICON creates the "no data" record for the applicable provider and updates the NODATA_IUTC field in the applicable G_DSS_*_PROVIDER table.
[callconcentrator] use-dss-monitor	New option	8.0.000.25	Specifies whether ICON synchronizes user data and call-termination timestamps in IDB. Also, if this option is set to false, ICON does not write data to the G_DSS_*_PROVIDER tables.
[callconcentrator] store-releasing-party	New option	8.0	Specifies whether ICON stores information, if it is reported by T-Server, that enables downstream reporting applications to determine which party released the call.
Switch Object			
[gts] load-balancing-on-ntwk-switch	New option	8.0	Specifies whether this is a network switch that operates in load-balancing mode with multiple Network T-Servers.

The following configuration options were added or changed in functionality in 7.x releases. For complete documentation of all configuration options, see the

chapter on configuration options in the appropriate version of the *Interaction Concentrator Deployment Guide*.

Table 153: Configuration Option Changes from 7.2 to 7.6.1

[Section] Option Name	Type of Change	Change Occurred in Version #	Details
ICON Application Object			
[callconcentrator] om-force-adata	New option	7.6.100.23	For deployments that have been configured to report data for multimedia interactions that started in the past (the [callconcentrator] calls-in-the-past configuration option is set to true), specifies whether ICON stores a UserData snapshot that corresponds to the interaction-related data.
[callconcentrator] gls-active-reason-codes	New option	7.6.100.19	Specifies whether ICON captures and stores the values of active Agent state reason codes.
[callconcentrator] om-check-filter-flag	New option	7.6.100.10	Specifies whether or not ICON stores strategy activity according to the value of the [callconcentrator] om-activity-report option (defined on the script object of type simple routing). **Note:** This functionality requires Interaction Server release 7.6.1 or higher.
[callconcentrator] om-max-in-memory	New option	7.6.100.10	Specifies the maximum number of active interactions that concurrently reside in an interaction queue or interaction workbin. **Note:** This functionality requires Interaction Server release 7.6.1 or higher.
[callconcentrator] om-memory-optimization	New option	7.6.100.10	Specifies whether or not memory utilization is optimized. **Note:** This functionality requires Interaction Server release 7.6.1 or higher.
[callconcentrator] gcti-mode-monitoring	New option	7.6.000.21 **Note:** Also added to the 7.5.x release.	Regulates the mode that ICON uses for voice call scenario recognition.

Table 153: Configuration Option Changes from 7.2 to 7.6.1 (Continued)

[Section] Option Name	Type of Change	Change Occurred in Version #	Details
[callconcentrator] agent-pstorage-name	New option	7.6.000.16	Specifies the name of the persistent queue file that ICON creates and uses to store HA agent-related information before writing the information to IDB.
[callconcentrator] calls-in-the-past	New option	7.6.000.16	Enables you to report data for Multimedia interactions that have started in the past.
[callconcentrator] extended-route-result	New option	7.6.000.16	Specifies whether ICON stores extended routing results—statuses of interactions distributed by URS 7.6—in IDB. **Note:** Universal Routing Server (URS) release 7.6 and Interaction Server release 7.6.000.18 (or higher) are required for this functionality.
[filter-data]	New section	7.6.000.16	Contains options that control Interaction Concentrator output to IDB.
[filter-data]	New options	7.6.000.16	The following new options in the [filter-data] section enable ICON to selectively exclude writing various types of data to IDB: • acd-party-history • acd-party-metrics • call-history • call-metrics • external-party • gls-all • gls-ivr • gls-metrics • gls-no-person • gls-queue • gls-wm • ir-history • udata-history-terminated For more information, see the chapter about configuration options in the *Interaction Concentrator Deployment Guide.*

Table 153: Configuration Option Changes from 7.2 to 7.6.1 (Continued)

[Section] Option Name	Type of Change	Change Occurred in Version #	Details
[callconcentrator] start-cfg-sync	New option	7.5.000.22	Supports the on-demand resynchronization of configuration data.
[filter-data] observer-party	New option	7.5.000.19	Specifies whether ICON should exclude, from IDB storage, data related to a service observer on a call.
[callconcentrator] db-schema-name	New option	7.5.000.12	Specifies the explicit schema name that ICON uses when executing stored procedures.
[callconcentrator] pq-backlog-alarm-threshold	New option	7.5.000.12	Specifies the maximum number of records allowed to be pending in the persistent queue for submission to IDB. When the threshold is reached, ICON generates log message 25025.
[callconcentrator] pq-backlog-clearance-threshold	New option	7.5.000.12	Specifies the minimum number of records pending in the persistent queue at which ICON generates message 25026, if it previously generated log message 25025 (see [callconcentrator] pq-backlog-alarm-threshold).
[callconcentrator] suppress-user-data	New option	7.5.000.12	Specifies whether ICON instructs T-Server to propagate attached data only when the attached data changes. This optimizes processing of attached data by reducing network traffic. **Note:** T-Server 7.5 is required for this functionality.
[callconcentrator] sync-call-data-limit	New option	7.5.000.12	Specifies the maximum number of pending synchronizations for calls and attached data.
[callconcentrator] tsync-threshold	New option	7.5.000.12	Specifies the maximum allowed time difference, in milliseconds, between the ICON host and the T-Server.
[custom-states]	New section (Options tab)	7.5.000.12	Contains configuration options to support ICON processing of custom agent states and common data.

Table 153: Configuration Option Changes from 7.2 to 7.6.1 (Continued)

[Section] Option Name	Type of Change	Change Occurred in Version #	Details
[custom-states] AgentRecordUserTypes	New option	7.5.000.12	Defines the custom agent states.
[custom-states] AgentUserFields	New option	7.5.000.12	Specifies the fields in the G_CUSTOM_STATES table in which ICON stores values for the specified key names, for data sent while the DN was in a custom agent state.
[custom-states] EventData	New option	7.5.000.12	Specifies the list of key names for which ICON stores KVP data in the G_CUSTOM_DATA_S table.
[custom-states] GlobalData	New option	7.5.000.12	Specifies the list of key names for which ICON stores KVP data in the G_CUSTOM_DATA_P table.
[custom-states] store-event-data	New option	7.5.000.12	Specifies which, if any, KVP data ICON stores in the G_CUSTOM_DATA_S table.
[callconcentrator] vq-write-mode	New option	7.2.000.17	Specifies how ICON writes to IDB information about a particular association between an interaction and a virtual queue.
[dbw-error-reactions]	New section (Options tab)	7.2.000.17	Contains configuration options that define ICON reactions to specific database error messages.
[dbw-error-reactions] <error-name>	New option	7.2.000.17	Defines the manner in which Interaction Concentrator reacts to a database error message that contains a particular text substring. Create a separate option for every database error message for which a certain reaction is required.
Switch Object			
[gts] gls-use-ts-id	New option	7.6.000.16	Specifies whether ICON uses the login session ID generated by T-Server or by itself when connecting to or disconnecting from T-Server.
[gts] sst-options	Name corrected	7.6.000.16	Name of this option was incorrect in previous versions of the *Interaction Concentrator Deployment Guide*.

Table 153: Configuration Option Changes from 7.2 to 7.6.1 (Continued)

[Section] Option Name	Type of Change	Change Occurred in Version #	Details
[gts] gls-max-inactivity	Default value changed	7.6.000.16	The default value was changed from 8 hours to 0 (ICON does not check inactivity durations).
[gts] gls-max-duration	Default value changed	7.6.000.16	The default value was changed from 24 hours to 0 (ICON does not check session durations).
[gts] fix-time-stamps	Documented for the first time	7.5.000.16	Enables adjustment of timestamps when the CTI event contains an earlier timestamp than the timestamp from a previously received CTI event.
[gts] min-tsync-roundtrip	New option	7.5.000.12	Specifies the allowed amount of time, in milliseconds, for messages to be sent from ICON to T-Server and acknowledged by T-Server, for the purposes of time synchronization.
[gts] stt-options	New option	7.2.000.14	Specifies the TEvents that ICON uses to recognize a single-step transfer.
[gts] support-dn-type-5	New option	7.2.000.17	Enables the processing of events pertaining to DNs of the Virtual Queue type that belong to the switch.
[gts] suppress-user-data	New option	7.5.000.12	Specifies whether the switch instructs T-Server to propagate attached data only when the attached data changes. This optimizes ICON processing of attached data by reducing network traffic.
DN Object			
[gts] ivr	New option	7.6.000.16	Specifies whether ICON treats this DN as an IVR port. By default, ICON identifies DNs as IVR ports using one of the following criteria: • DN has a type of Voice Treatment Port in Configuration Database. • DN has a type of ACD Position or Extension, but it also has an Associated DN property specified in Configuration Database at the time of ICON startup.

Table 153: Configuration Option Changes from 7.2 to 7.6.1 (Continued)

[Section] Option Name	Type of Change	Change Occurred in Version #	Details
[gts] monitor	New option	7.2.000.17	Applicable only to DNs of the Virtual Queue type. Enables the processing of virtual queue-related events for the particular DN.
Script Object (of type simple routing)			
[callconcentrator] om-activity-report	New option	7.6.100.10	Specifies whether or not ICON stores activity data related to any Multimedia interaction handled by this strategy. **Note:** This functionality requires Interaction Server release 7.6.1 or higher.
Script Object (of type interaction queue)			
[callconcentrator] om-memory-clean	New option	7.6.100.10	Specifies whether or not ICON immediately removes interactions from operational memory. **Note 1:** The [callconcentrator] om-memory-optimization configuration option must be set to true for this option to work. **Note 2:** This functionality requires Interaction Server release 7.6.1 or higher.

Changes to Interaction Database

This section provides summaries of the following changes:

- IDB Changes from Release 8.0.x to 8.1.x
- IDB Changes from Release 7.6.x to 8.0.x, page 938
- IDB Changes from Release 7.2 to 7.6.x, page 940

IDB Changes from Release 8.0.x to 8.1.x

Table 154 briefly describes the changes to the IDB schema between release8.0 and release 8.1 of Interaction Concentrator. For more information about the IDB changes for Interaction Concentrator, refer to the *Interaction Concentrator Physical Data Model* for your RDBMS.

Table 154: IDB Changes from 8.0 to 8.1

Type of Change	Change Occurred In Interaction Concentrator Release #	Details
A new table, GC_ANNEX, has been added to the IDB schema.	8.1.4	This table has been added to support ICON collection and storage of configuration data additions, updates, and deletions from the Annex tabs of certain types of objects pertaining to Genesys Interactive Insights access roles. Applies only to ICON instances with the cfg role, which is set in the role configuration option.
The IS_LINK and IS_LINK_HISTORY tables now store data for the new attributes in EventTransactionStatus.	8.1.4	Supports capture of IS_LINK data on calls transferred from an outside switch when the transfer information arrives after the call is deleted.
ICON now writes the T-Server event sequence in the gsys_ext_vch1 field.	8.1.4	Provides a way to order G_IS_LINK records within call in order they were initially added by T-Server. Supports the out-of-signaling-path feature of SIP Server.
Compatibility update for the gsysIRMerge and gsysIRMerge2 stored procedures	8.1.2	The gsysIRMerge and gsysIRMerge2 stored procedures are not needed by Genesys Info Mart 8.x releases. The gsysIRMerge and gsysIRMerge2 stored procedures are not supported for PostgreSQL.
Stored procedure added: purgePartitions811	8.1.1	This purge procedure is used only on an Oracle IDB that is divided into a number of partitions (fourteen, by default), each of which is equivalent to a day. Purging is configured by specifying the number of days/partitions to keep in IDB (plus an additional day/partition for *tomorrow*). All earlier partitions are entirely truncated in all affected tables.
Alternative values possible for some fields	8.1.1	In IDBs running on Oracle 11g or higher in a SIP Cluster environment (available as a restricted release), some table fields contain different values or different types of data from those recorded in those fields in a non-Cluster environment. For a list of the tables and fields affected, see the "Historical Reporting Deployment Considerations" page in the *SIP Cluster Solution Guide* or the *Interaction Concentrator 8.1 Physical Data Model for an Oracle Database*.

Table 154: IDB Changes from 8.0 to 8.1 (Continued)

Type of Change	Change Occurred In Interaction Concentrator Release #	Details
Added primary keys to each of the G_DSS_*_PROVIDER tables	8.1.1	Added primary keys to the following tables: • G_DSS_CFG_PROVIDER • G_DSS_GCC_PROVIDER • G_DSS_GLS_PROVIDER • G_DSS_GOS_PROVIDER • G_DSS_GUD_PROVIDER
Table added	8.1	To support the new functionality that provides the association between Virtual Queue IDs and Routing Points (or, for multimedia interactions handled by Interaction Server, the association between Virtual Queue IDs and Routing Strategies): • G_ROUTE_RES_VQ_HIST
Tables added	8.1	To provide a more effective resolution for the stuck resolver issues, the following tables have been added: • G_CALL_ACTIVE • G_IR_ACTIVE
Stored procedure functionality updated	8.1	SVCUpdateDBParameters (now used in stuck resolver).

IDB Changes from Release 7.6.x to 8.0.x

Table 155 briefly describes the changes to the IDB schema between release 7.6.1 and release 8.0 of Interaction Concentrator. For more information about the IDB changes for Interaction Concentrator, refer to the *Interaction Concentrator Physical Data Model* for your RDBMS.

Table 155: IDB Changes from 7.6.x to 8.0.x

Type of Change	Change Occurred In Interaction Concentrator Release #	Details
New parameter: brokenthreshold	8.0.000.42	The merge procedure has been modified to streamline the processing of calls when an inter-site transfer fails. A new merge procedure parameter, `brokenthreshold`, supports the enhanced functionality. For detailed information, see the *Interaction Concentrator 8.0.x Release Note*.
Tables added	8.0	To support the new functionality that enables downstream reporting applications to evaluate the availability and reliability of data in IDB, the following new tables store detailed data about connections, timestamps, and events from the various data sources: • G_DSS_CFG_PROVIDER • G_DSS_GCC_PROVIDER • G_DSS_GLS_PROVIDER • G_DSS_GOS_PROVIDER • G_DSS_GUD_PROVIDER
Table removed	8.0	The G_HA_CONTROL table has been removed. This table was included in previous versions of the schema but is not used.
Column usage changed	8.0	The following fields are now used in the specified tables to support new 8.0 functionality: • GSYS_DOMAIN in all operational tables • GSYS_EXT_INT1 in the G_PARTY_STAT and G_PARTY_HISTORY tables • GSYS_EXT_INT1 in the G_CUSTOM_DATA_* tables • GSYS_EXT_VCH1 in the G_CALL_STAT table • GSYS_EXT_VCH2 in the G_CALL_STAT table
Column usage clarified	8.0	The following fields in the G_TIMECODE table are no longer flagged as mandatory and are identified as reserved for future use: • TC_WEEKDAY • TC_WEEK • TC_DAYNAME • TC_WEEKNAME • TC_MONTHNAME

Table 155: IDB Changes from 7.6.x to 8.0.x (Continued)

Type of Change	Change Occurred In Interaction Concentrator Release #	Details
Stored procedures renamed	8.0	Interaction Concentrator streamlines future migration by packaging the stored procedures that support each 8.x release in a release-specific set. A particular ICON release works only with the corresponding stored procedures package. Multiple sets of packages can exist in the same IDB, and an earlier set of stored procedures can work with a later version of the IDB schema.

IDB Changes from Release 7.2 to 7.6.x

Table 156 summarizes the IDB schema versions that are applicable for various Interaction Concentrator 7.x releases.

Table 156: IDB Versions for Interaction Concentrator 7.x

Interaction Concentrator Release	IDB Schema Version
7.2.000.09	7.2.000.07
7.2.000.14, 7.2.000.17, 7.2.000.18, 7.2.000.19, 7.2.000.20	7.2.000.11
7.5.000.12	7.5.000.03
7.5.000.16	7.5.000.05
7.5.000.17	7.5.000.05
7.5.000.18 7	.5.000.05
7.5.000.19	7.5.000.05
7.5.000.22	7.5.000.06
7.6.000.16	7.6.000.15
7.6.100.10, 7.6.100.12, 7.6.100.14	7.6.100.07
7.6.100.19	7.6.100.09
7.6.100.23–7.6.100.29	7.6.100.23

Table 157 briefly describes the changes to the IDB schema in 7.x releases of Interaction Concentrator. For more information about the IDB changes for

Interaction Concentrator, refer to the *Interaction Concentrator Deployment Guide*.

Table 157: IDB Changes from 7.2 to 7.6.x

Type of Change	Change Occurred In		Details
	Interaction Concentrator Release #	IDB Schema Version #	
New table	7.6.100.19	7.6.100.09	The following new table stores the values of active Agent state reason codes: • G_AGENT_STATE_RC_A
New stored procedure	7.6.100.10	7.6.100.07	New stored procedure—gsysPurge76—purges voice, open media, multimedia, attached data, and agent login sessions interaction data from IDB. For more information, see the chapter about special stored procedures in the *Interaction Concentrator 7.6 User's Guide*.
New dictionary types	7.6.000.16	7.6.000.15	New dictionary types include: • call merge types (CALL_MERGE_TYPE) • reliability of route results (ROUTE_RESULT_RELIABILITY) • type of stop processing actor (IXN_STOP_PROC_ACTOR_TYPE)
New dictionary values	7.6.000.16	7.6.000.15	See Table 158 for a listing of the new values added to the dictionary tables.
Column usage changes	7.6.000.16	7.6.000.15	The following fields are now used in the specified tables to support new 7.6 functionality: • GSYS_EXT_INT1 in the GC_*, GCX_*, G_PARTY, G_ROUTE_RESULT, and GM_L_USERDATA tables • GSYS_EXT_INT2 in the G_AGENT_STATE_RC and G_CALL tables • GSYS_EXT_VCH1 in the G_AGENT_SATE_HISTORY, G_AGENT_STATE_RC, GS_AGENT_STAT, GS_AGENT_STAT_WM, G_CALL, G_ROUTE_RESULT, GX_SESSION_ENDPOINT, and GM_L_USERDATA tables • GSYS_EXT_VCH2 in the G_DND_HISTORY, G_IR, and GM_L_USERDATA tables

Table 157: IDB Changes from 7.2 to 7.6.x (Continued)

Type of Change	Change Occurred In		Details
	Interaction Concentrator Release #	IDB Schema Version #	
Stored procedures changes	7.5.000.22	7.5.000.06	The merge and purge stored procedures were updated. For more information, see the chapter about special stored procedures in the *Interaction Concentrator 7.6 User's Guide*.
New index	7.5.000.22	7.5.000.06	A new index: IDX_IS_LINK_LID_LOC was added to the LINKID and REMOTELOCATION columns of the G_IS_LINK table.
New tables and indexes	7.5.000.16	7.5.000.05	The following new tables support purge procedure operation: • GSYS_DMGR_CAMP • GSYS_DMGR_CHAIN • GSYS_DMGR_GCC • GSYS_DMGR_GCC_SEQ • GSYS_DMGR_GLS A number of new indexes support purge procedure operation and cleanup (see Table 159).
New stored procedures	7.5.000.16	7.5.000.05	New stored procedures implement optional purge functionality. The following are the primary procedures to purge merged voice interactions: • gsysPurgeIR—Purges Interaction Records (IRs). • gsysPurgeUDH—Purges User Data History (UDH) data. • gsysPurgeLS—Purges Agent Login Session data. • gsysPurgeOS—Purges Outbound data. For more information, see the chapter about special stored procedures in the *Interaction Concentrator 7.5 Deployment Guide*.
Stored procedures changes	7.5.000.16	7.5.000.05	Operation of the merge stored procedures (gsysIRMerge and gsysIRMerge2) changed.

Table 157: IDB Changes from 7.2 to 7.6.x (Continued)

Type of Change	Change Occurred In		Details
	Interaction Concentrator Release #	IDB Schema Version #	
Data types/field sizes changes	7.5.000.12	7.5.000.03	Data types changed from 50 to 255 characters for the following columns in the G_ROUTE_RESULT table: • RTARGETRULESELECTED • RTARGETAGENTSELECTED • RTARGETPLACESELECTED • RSTRATEGYNAME • RTENANT
Stored procedures changes	7.5.000.12	7.5.000.03	• gsysStuckResolver—Functionality changed (see page 923). • gsysIRMerge—Implementation and operation changed. gsysIRMerge is now a wrapper for a reformulated merge procedure named gsysIRMerge2. Calls to gsysIRMerge 7.5 are compatible with calls to gsysIRMerge 7.2. To directly invoke gsysIRMerge2, you must now specify parameters. For more information, see the chapter about special stored procedures in the *Interaction Concentrator 7.5 Deployment Guide*.
Provision for custom dispatcher	7.5.000.12	7.5.000.03	ICON can support a stored procedure (either gudCustDisp1 or gudCustDisp2) to provide customized attached data processing.
New dictionary values	7.5.000.12	7.5.000.03	• New values added to the dictionary tables to include metadata for different media types, to support reporting about Multimedia interactions (see database script 08_gcc_<db_type>_dict_3.sql). • New values added to the dictionary tables to include metadata about Genesys Voice Platform (GVP) (see database script 03_gcc_<db_type>_dict.sql).

Table 157: IDB Changes from 7.2 to 7.6.x (Continued)

Type of Change	Change Occurred In		Details
	Interaction Concentrator Release #	IDB Schema Version #	
Column usage changes	7.5.000.12	7.5.000.03	The following fields, formerly reserved, are used to support Multimedia reporting: • GSYS_EXT_INT1 in the G_IR and G_CALL table— A value of 1 indicates that the record is for a Multimedia interaction. • GSYS_EXT_INT1 in the GX_SESSION_ENDPOINT table and other configuration-related tables that contain information about agent states—Identifies the media type(s) associated with the agent login session, with new values for Multimedia specified in G_DICTIONARY. • GSYS_EXT_VCH1 in the G_IR table—Stores ID information for a parent interaction that was reported by Interaction Server but not found in a previous G_IR record.
New tables	7.5.000.12	7.5.000.03	• G_CUSTOM_DATA_P, G_CUSTOM_DATA_S, and G_CUSTOM_STATES tables added to support reporting about custom agent states. • GM_F_USERDATA and GM_L_USERDATA tables added to support attached data processing for Multimedia.
New table, new dictionary values, new internal stored procedures	7.2.000.14, 7.2.000.17	7.2.000.11	• G_VIRTUAL_QUEUE table added to support reporting about virtual queue usage. • New values added to the dictionary tables to include metadata about virtual queue states. • New call control–related stored procedures introduced to accommodate reporting about virtual queue usage and routing results.

Table 158 lists the new values added to dictionary tables in Interaction Concentrator release 7.6.000.16.

Table 158: New Values Added to Dictionary Tables in Release 7.6.000.16

Applicable Dictionary Type	New Dictionary ID Value	Dictionary Value Description
6	1000	OM
10	1 o	bserver
21	3	failed
24	10	Syncinprogress
27	2	source
27	3	target
28	102	distributed_to_default
28	103	routed_by_switch
28	105	other_reasons
28	133	ixn_server_timeout
28	134	ixn_taken_out
30	-1	unknown
85	101	routed_in_parallel_vq
85	102	routed_to_default
85	103	routed_by_switch
85	104	execute_clear _target
85	105	other
85	133	ixn_routing_to
85	134	ixn_taken_out
86	-1	unknown
86	0	bridge
86	11	transfer
86	12	conference
87	0	unknown

Table 158: New Values Added to Dictionary Tables in Release 7.6.000.16 (Continued)

Applicable Dictionary Type	New Dictionary ID Value	Dictionary Value Description
87	1	ok
87	2	in_the_past
88	0	unknown
88	1	strategy
88	2	agent
88	3	place
88	4	media_server

For more detailed descriptions of the tables and columns in IDB, see the *Interaction Concentrator 7.6 Physical Data Model* document for your particular RDBMS.

Table 159 lists the indexes created to support purge procedure functionality.

Table 159: Purge Procedure Indexes

Index Name	Table	Columns Indexed
I_G_AG_STAT_TS	GS_AGENT_STAT	ADDED_TS
I_G_AG_STAT_WM_TS	GS_AGENT_STAT_WM	ADDED_TS
I_G_AGST_HIST_TS	G_AGENT_STATE_HISTORY	ADDED_TS
I_G_AGST_RC_TS	G_AGENT_STATE_RC	CREATED_TS
I_G_DND_HIST_TS	G_DND_HISTORY	ADDED_TS
I_G_LSESS_TS	G_LOGIN_SESSION	CREATED_TS
I_G_SES_ENDP_TS	GX_SESSION_ENDPOINT	CREATED_TS
I_GO_CAMP_HIST_TS	GO_CAMPAIGNHISTORY	ADDED_TS
I_GO_CAMP_TS	GO_CAMPAIGN	CREATED_TS
I_GO_CAMPP_HIST_TS	GO_CAMPPROP_HIST	ADDED_TS
I_GO_CHAIN_TS	GO_CHAIN	CREATED_TS
I_GO_CHREC_H_TS	GO_CHAINREC_HIST	ADDED_TS
I_GO_CUST_F_TS	GO_CUSTOM_FIELDS	LOADED_TS
I_GO_H_HIST_TS	GO_FIELDHIST	ADDED_TS
I_GO_METRICS_TS	GO_METRICS	ADDED_TS
I_GO_REC_TS	GO_RECORD	LOADED_TS
I_GO_SEC_CUST_F_TS	GO_SECURE_FIELDS	LOADED_TS
I_GO_SEC_F_HIST_TS	GO_SEC_FIELDHIST	ADDED_TS
I_GOX_CH_CALL_TS	GOX_CHAIN_CALL	ADDED_TS

Table 159: Purge Procedure Indexes (Continued)

Index Name	Table	Columns Indexed
I_ISLINK_HIST_SEQ	G_IS_LINK_HISTORY	GSYS_SYS_ID, GSYS_SEQ
IDX_DMGRCAMP_TID	GSYS_DMGR_CAMP	
IDX_DMGRCHAIN_TID	GSYS_DMGR_CHAIN	
IDX_GDMGRGCC_TID1	GSYS_DMGR_GCC	
IDX_GDMGRGCC_TYPE	GSYS_DMGR_GCC	
IDX_GDMGRGLS_TID	GSYS_DMGR_GLS	
IDX_GPARTY_SEQ	G_PARTY	GSYS_SYS_ID, GSYS_SEQ
IDX_ROUTRES_SEQ	G_ROUTE_RESULT	GSYS_SYS_ID, GSYS_SEQ
IDX_SUD_HIST_TS	G_SECURE_USERDATA_HISTORY	ADDED_TS
IDX_UD_HIST_TS	G_USERDATA_HISTORY	ADDED_TS
IDX_VIRTQ_SEQ	G_VIRTUAL_QUEUE	GSYS_SYS_ID, GSYS_SEQ

Chapter

49 Migration Procedures for Interaction Concentrator

This chapter provides the migration procedures for Interaction Concentrator. Refer to other sections of this book for detailed information to help you migrate Framework and other Genesys solutions.

This chapter contains the following sections:

Migration to Release 8.1.5

Updates made in 8.1.5 and later releases are documented in the Interaction Concentrator Migration Guide located on the Genesys Documentation web site.

The online material includes only changes between the information provided in this Guide and the most recent updates. This Guide remains the source for the basic migration procedure.

Migration to Release 8.1.4

This section describes the procedures for migrating to Interaction Concentrator 8.1.4 from existing 7.5.x, 7.6.x, or 8.x releases.

Note: This procedure contains an updated naming system for database schema versions. This new naming system facilitates automated updates from one release of Interaction Concentrator to another.

This naming system was introduced in release 8.1.400.xx. You can use it to migrate from any 7.5.x, 7.6.x, or 8.x release to any 8.0.x or higher Interaction Concentrator release.

Migration Preliminaries

As described in "Order of Migration" on page 905, complete the following procedures before starting your migration of Interaction Concentrator:

1. Migrate Management Framework, as applicable for your deployment.
2. Upgrade other prerequisite Genesys components (for example, T-Server, Interaction Server, or Universal Routing Server), as applicable for your deployment.
3. Update the contact center configuration (for example, Place Groups, Agent Groups, and DNs).

Migration Procedures

In a High Availability Environment

Genesys recommends that you run both ICONs in each ICON pair simultaneously for at least one day before the migration. At the minimum, the time the ICONs run simultaneously must exceed the time set in the Genesys Info Mart max-call-duration configuration option.

The recommended upgrade plan is the following:

- Stop one member of an ICON pair, migrate that ICON instance, and then restart it. Make sure it starts successfully. If not, roll back the migration (see "Rolling Back the Migration" on page 955).
- If the ICON migration was successful, wait until the longest active interaction in the environment finishes (usually 24 hours is enough). Then—assuming the migrated ICON has been operating normally—stop the other member of the HA pair of ICONs and perform the same migration procedure, again ensuring that the migration is successful.

In an Environment with Genesys Info Mart

If Genesys Info Mart is running in your environment, stop all Info Mart extraction jobs before you start your ICON migration. Restart Job_ExtractICON only after you have successfully completed the migration of the ICON instances from which Info Mart is extracting data.

If you have multiple ICON applications, repeat the migration procedure for each ICON instance (including each ICON in any HA pair).

Note: Your migration should be done in a working environment with available ICON database and the associated ICON DBServer.

Migrating the ICON Server

Follow these steps to migrate the server component of Interaction Concentrator to the latest release.

1. Stop ICON, either using Genesys Solution Control Interface (SCI), Genesys Administrator/Genesys Administrator Extension, or manually.

   This may take several minutes. Make sure not to restart ICON until after the database update is complete.

2. Back up the Interaction database (IDB).

3. If you have customized the gudCustDISP1 or gudCustDISP2 dispatcher stored procedures and saved them with the default (Genesys-provided) names, back up the procedures and restore them after the upgrade.

4. Back up the entire ICON directory in case you need to roll back the migration.
   - Back up your customer-related files, which have the following suffixes:
     - *.db
     - *.pq
     - *.xml—You can locate this file, which by default is named ccon_adata_spec.xml, in the directory where the current version of Interaction Concentrator is installed.
   - Save the scripts that drop outdated stored procedures. To do so, save the drop_<version>_<db>.sql file to be used after successful migration completion to drop the old stored procedures.

5. Run the setup file (install.sh or setup.exe) provided in your installation package.

6. Restore the backup customer-related files saved in Step 4 on page 951. Replace the files installed in the folder where you deployed ICON 8.1.x during migration with your saved files.

Checking Your IDB Schema Version

Check if an ICON database update is necessary by comparing database schema versions.

1. The database schema version of the *new* installation can be identified from the name of the following file:

   drop_<VERSION>_< db_type>.sql

   where
   - <VERSION> stands for the new database version. The version has the format N.N.NNN.NN.
   - < db_type > stands for the short name of the database type.

   For example, the filename might be: drop_8.1.400.xx_postgre.sql.

2. The *currently-installed* RDBMS version can be identified by either the name of the drop_<VERSION>_< db_type>.sql file in the previous installation of ICON or using the following database query:

   SELECT VAL FROM G_DB_PARAMETERS

   where SECT = 'schema' and OPT = 'version'

If both the current and new ICON schema versions are the same, you do not need to update your IDB.

Note: The version of the database schema does not necessarily match the release number of the component. For example, for Interaction Concentrator release 8.1.200.06, the database schema version is 8.1.200.05.

Updating IDB

The update includes an upgrade of the stored procedures and it might include a change to the database schema.

To perform the schema upgrade, apply all the upgrade scripts sequentially in the order of increasing versions starting from the lowest numbered upgrade script version above the current (old) ICON database schema version through the highest version found in the directory.

The Interaction Concentrator installation package may contains one or more upgrade schema scripts in the following format:

Upgrade_N.N.NNN.NN_<db_type>.sql

where:

N.N.NNN.NN indicates the schema version to which this script upgrades the database schema.

<db_type> defines the type of database (ora, mssql, db2, or postgre).

Examples

Example A If the old IDB version is 8.1.100.28 on ORACLE and the new ICON installation provides the following upgrade scripts:

- Upgrade_8.1.100.27_ora.sql
- Upgrade_8.1.100.29_ora.sql
- Upgrade_8.1.100.32_ora.sql

Then run the following scripts in the specified order:

- Upgrade_8.1.100.29_ora.sql
- Upgrade_8.1.100.32_ora.sql

Example B If the old IDB version is 8.1.100.32 on ORACLE and the new ICON installation provides the following upgrade scripts:

- Upgrade_8.1.100.27_ora.sql

- Upgrade_8.1.100.29_ora.sql
- Upgrade_8.1.100.32_ora.sql

There is no need to apply any of the upgrade scripts.

Example C If the old IDB version is 8.1.100.35 on ORACLE and the new ICON installation provides the following upgrade scripts:

- Upgrade_8.1.100.27_ora.sql
- Upgrade_8.1.100.29_ora.sql
- Upgrade_8.1.100.32_ora.sql

There is no need to apply any of the upgrade scripts.

Example D If the old IDB version is 8.1.100.27 on ORACLE and the new ICON installation provides the following upgrade scripts:

- Upgrade_8.1.100.27_ora.sql
- Upgrade_8.1.100.29_ora.sql
- Upgrade_8.1.100.32_ora.sql

Then run the following scripts in the specified order:

- Upgrade_8.1.100.29_ora.sql
- Upgrade_8.1.100.32_ora.sql

Upgrading the Stored Procedures

1. To create a new set of stored procedures in IDB to support your new ICON installation, run

   CoreProcedures_<db_type>.sql.

2. If you are running Oracle 11 or higher and plan to purge by truncating partitions, you must create a new partitioned IDB. See the *Interaction Concentrator 8.1 Deployment Guide* for deployment considerations and instructions.

   Note: If you have an existing partitioned IDB, you cannot migrate that IDB to a non-partitioned database structure.

3. Upgrade your purge procedure. To do so, execute the appropriate one of the following scripts:

- Purge2_<database>.sql
- PurgePart_ora.sql—If you have a partitioned IDB.

4. Verify the purge parameters. Verify that the GSYSPurge81 procedure has been set up appropriately for your deployment. To do this:

   a. Retrieve the transaction_size value by selecting Val from G_DB_PARAMETERS

      where

      SECT = 'GSYSPurge81' and OPT = 'rowspertransaction'

b. Make sure Val has the required value (the default value is 200,000 records).

If necessary, you can make changes manually or you can use an optional Interaction Concentrator stored procedure, svcUpdateDBParameters, provided in the Wrapper_for_<idb_ver>_<db_type>.sql script.

5. Upgrade the wrappers.

The ICON scripts directory contains wrappers for the stored procedures. For each RDBMS type, there is a file that matches pattern Wrapper_for_*_<database>.sql. For example, for Microsoft SQL, the wrapper name is Wrapper_for_<version>_mssql.sql.

- Execute the wrapper for your RDBMS.

Re-Starting ICON and Verifying the Migration

1. Start the upgraded ICON. Genesys recommends that you use Solution Control Interface (SCI) or Genesys Administrator/Genesys Administrator Extension to start ICON.
2. Wait while ICON completes startup operations. The startup time strictly depends on the size of your configuration environment and may take more than 30 minutes.
3. Check the log for errors to verify that ICON is running properly.

The criteria for a successful migration is that *ICON is started* and *no database problem is detected*.

ICON is started when all three of the following trace messages below have been printed in the log:

- Trace log message 09-25004: Database queue [ID]: persistent queue transaction [number1] is processed, committed and removed. [number2] records are written.
- Trace log message 09-25016: Persistent Queue [ID]: transaction [number1] is committed. [number2] records written into the queue.
- Trace log message 00-04541: Message [message type] received from [socket number] ([application type] [application name]).

If ICON is unable to write interaction data in IDB, then see "Rolling Back the Migration" on page 955 for instruction on reversing the migration and restoring your previous version of ICON.

Follow-Up Steps to Complete Your Migration

1. If ICON started successfully, you can start the Genesys Info Mart Job_ExtractICON.
2. Delete all old stored procedures for previous Interaction Concentrator releases.

Notes: ICON may have backlog of data in the PQ file from previous run of ICON, prior to the migration. If so, when it starts, ICON processes this data using the old stored procedures.

After ICON finishes writing the saved data in the database, the old stored procedures can be safely deleted. In most cases 24 hours is enough time to wait before deleting the old stored procedures.

3. Execute the drop_<previous_schema_version>_<db_type>.sql script you saved in Step 4 on page 951.

Rolling Back the Migration

If the upgrade failed and ICON did not start successfully, perform the following steps:

1. Stop Interaction Concentrator.
2. Restore the IDB database from your backup.
3. Restore entire the Interaction Concentrator directory, including the icon.exe file, as well as the *.pq and *.db files.
4. Start the restored version of ICON.
5. If ICON starts successfully, you can then start the Genesys Info Mart extraction job.

Migration to Release 8.1.2

This section describes the procedures to migrate from any 7.6.x or 8.x release of Interaction Concentrator to any 8.x release through 8.1.200.xx.

As described in "Order of Migration" on page 905, complete the following preliminary procedures before starting your migration:

1. Migrate Management Framework, as applicable for your deployment.
2. Upgrade other prerequisite Genesys components (for example, T-Server, Interaction Server, or Universal Routing Server), as applicable for your deployment.
3. Update the contact center configuration (for example, Place Groups, Agent Groups, and DNs).

Migration Procedures

Follow these migration procedures for your solution:

Upgrade Interaction Concentrator

1. Back up the attached data configuration file (by default, ccon_adata_spec.xml). This file is located in the folder where your existing Interaction Concentrator Application is installed.
2. Import the Application template for Interaction Concentrator 8.x.

   For more detailed instructions, see the section about deploying Interaction Concentrator in the relevant version of the *Interaction Concentrator Deployment Guide* chapter about configuration and installation.
3. Create and configure a new Interaction Concentrator Application object for 8.0 or 8.1, as appropriate.

   For more detailed instructions, including all the necessary connections to servers, see the chapter about configuring and installing Interaction Concentrator in the relevant version of the *Interaction Concentrator Deployment Guide*.

   Note: If you are upgrading Interaction Concentrator in an environment with Genesys Info Mart 7.x, and Genesys Info Mart has already been extracting data from the Interaction Database (IDB) into which the existing Interaction Concentrator Application stores data, do not create a new Interaction Concentrator Application in the Configuration Layer. Instead, use the existing Interaction Concentrator Application. Refer to the *Genesys Info Mart 7.6 Operations Guide* for more information.
4. Install Interaction Concentrator on its host.

   For more detailed instructions about performing the installation for your operating system, see the section about deploying Interaction Concentrator

in the relevant version of the *Interaction Concentrator Deployment Guide* chapter about configuration and installation.

Notes:

- Genesys recommends that you install the new Interaction Concentrator Application in a different folder from your old Interaction Concentrator. If your company's file management policies do not allow this, stop Interaction Concentrator (Step 5) before installing the new Interaction Concentrator Application (Step 4).
- For UNIX, if you are installing Interaction Concentrator in the same folder as the old Interaction Concentrator, be aware that, if you choose the option to overwrite only the files contained in this package (option 2, or upgrade), the run.sh file is not overwritten, and the settings for the old Interaction Concentrator Application are retained.

5. Stop Interaction Concentrator if it is running.

   Genesys recommends using the Genesys Solution Control Interface (SCI) or Genesys Administrator/Genesys Administrator Extension to stop Interaction Concentrator. For more detailed instructions, see the relevant version of the *Interaction Concentrator Deployment Guide* section about starting and stopping Interaction Concentrator.

Note: The content of the persistent queue file (icon_**.pq) is lost as a result of the upgrade. Do not back up the persistent queue file. To minimize the loss of data, perform the upgrade when the contact center load is minimal.

Upgrade IDB

6. (Optional) Back up IDB. Genesys recommends backing up IDB, but only if it is feasible to do so without prolonging the service interruption to an unacceptable extent. Backing up a very large IDB (while Interaction Concentrator is stopped) may interrupt data collection for too long.

Warning! Ensure that no stored procedures are running or are scheduled to run during the upgrade. Stopping Interaction Concentrator does not stop the execution of any stored procedures from the database side. In particular, if you have automated the merge or purge stored procedures to run on a regular schedule, stop the schedule before you begin the upgrade. Genesys recommends that you allow enough time for two iterations of the merge procedure to complete before you start the upgrade, in order to ensure that the merge stored procedure is not still in use or locked when you run the database scripts.

7. Execute the applicable database scripts to upgrade IDB. After installation of the Interaction Concentrator Application (Step 4 on page 956), the scripts are located in the scripts subfolder in the directory to which you installed the Application.

   Table 160 on page 959 lists the scripts that you must run to upgrade from your existing IDB schema version to release 8.1.x.

   Execute the scripts in the order indicated, starting with the first script that applies for the particular Interaction Concentrator release from which you are migrating. In the script names in Table 160, <db_type> is a placeholder for the specific RDBMS type (db2, mssql, postgre or ora [for Oracle]).

   Example:

   Say your RDBMS is Oracle; you are migrating from Interaction Concentrator release 7.6.100.14 in a multi-site deployment; and you use the gsysPurge76 stored procedure to purge IDB. From the first column in Table 160, you identify that you must start with script 6_UpgradeSchema_<db_type>.sql. You then execute the following scripts in the order shown:

   - 6_UpgradeSchema_ora.sql
   - 7_UpgradeSchema_ora.sql
   - <n>_UpgradeSchema_ora.sql—-any scripts numbered 8_ or higher, if available
   - CoreProcedures_ora.sql
   - Purge2_ora.sql
   - MergeUpgrade_1_ora.sql
   - Wrapper_for_<version>_ora.sql, where <version> indicates the specific IDB schema version to which you are migrating.
   - (Optional) drop_<previous_schema_version>_ora.sql

   Warning! To avoid destroying data that you have already collected, do not run any schema initialization scripts that are not listed in Table 160 as applicable for your upgrade.

Table 160: IDB Scripts to Upgrade to Release 8.x

Starting Point for Migration from Release	Script Name	Description
To use this table: 1. In the first column, find the row that refers to your current Interaction Concentrator release (the release from which you are migrating). 2. Following the order in the table, execute all the numbered scripts from that row onwards. 3. Following the order in the table, execute all the unnumbered scripts that apply to your deployment, as indicated in the description.		
7.5.000.12 through 7.5.000.18	1_UpgradeSchema_<db_type>.sql	Upgrades the IDB schema.
7.5.000.22 through 7.6.000.16	2_UpgradeSchema_<db_type>.sql	Upgrades the IDB schema.
	3_UpgradeSchema_<db_type>.sql	Upgrades the IDB schema.
7.6.000.18 through 7.6.000.21	4_UpgradeSchema_<db_type>.sql	Upgrades the IDB schema.
	5_UpgradeSchema_<db_type>.sql	Upgrades the IDB schema.
7.6.100.10 through 7.6.100.14	6_UpgradeSchema_<db_type>.sql	Upgrades the IDB schema.
7.6.100.19 or later 7.6.100 release	7_UpgradeSchema_<db_type>.sql	Upgrades the IDB schema.
8.x	8_UpgradeSchema_<db_type>.sql	(If available) Upgrades the IDB schema. This script is needed for migration from any 8.0.x version to 8.1.x version. If you are starting from release 8.1.x, you do not need to run this script.

Table 160: IDB Scripts to Upgrade to Release 8.x (Continued)

Starting Point for Migration from Release	Script Name	Description
8.x (cont.)	CoreProcedures_<db_type>.sql	Creates a new set of stored procedures, including the service procedures that support the optional merge and purge functionality (for purging by interaction record [IR]). This script is required for all deployments.
	Purge2_<db_type>.sql	Re-creates the optional stored procedures for purging by partition. This script is required for deployments that currently use the gsysPurge76 purge procedure. If you currently use the gsysPurge80 purge procedure, you do not need to run this script.
	MergeUpgrade_1_<db_type>.sql Crea	tes the index used by the Merge procedure. Required only for Genesys Info Mart 7.6 environments.
	Wrapper_for_<updated_schema_version>_<db_type>.sql	Links the merge and purge procedures from the previous schema to the equivalent stored procedures in the new sets. This script is required for deployments that use the merge procedures or the gsysPurgeIR, gsysPurgeUDH, gsysPurgeLS, or gsysPurgeOS purge procedures.
	drop_<previous_schema_version>_<db_type>.sql [a]	(Optional) Removes the set of stored procedures for the specified IDB schema version. This script applies for all deployments migrating from an earlier 8.x release.
	9_UpgradeSchema_<db_type>.sql	Adds a primary key to each of the five G_DSS_*_PROVIDER tables.

Table 160: IDB Scripts to Upgrade to Release 8.x (Continued)

Starting Point for Migration from Release	Script Name	Description
8.x (cont.)	CoreSchemaPart_ora.sql	**Note:** Run *either* this script *or* CoreProcedures_<ora>.sql. **Do not** run both scripts. (Optional) For environments planning to purge their IDB by truncating partitions, creates a ***new*** partitioned database. For partitioned Oracle 11 and higher databases only. **Notes:** • There is no migration path from a non-partitioned to a partitioned IDB. In this case, "migration" consists of creating a *new* partitioned IDB and running parallel instances of Interaction Concentrator—one writing to the old IDB and one to the new one—until all required data is present in the new partitioned IDB. • Before running this script, or the PurgePart_ora.sql script described below, review the explanation of this functionality in the *Interaction Concentrator 8.1 Deployment Guide* and verify its suitability for your environment.
	PurgePart_ora.sql	(Optional) For environments planning to purge their IDB by truncating partitions, creates the necessary stored procedure to perform the purge. For partitioned Oracle 11 and higher databases only.

a. This script is provided for convenience. Interaction Concentrator functioning is not affected if you do not remove the old set of stored procedures. Do not execute this script until you are satisfied that the upgrade has succeeded (see Step 12 on page 962), in case you need to roll back the migration.
To retrieve information about the database schema version for your existing IDB, use the following SQL query:
select VAL from G_DB_PARAMETERS where SECT='schema' and OPT='version'

8. (Optional) If you want to add or enhance support for customized handling of user data that is attached to voice or multimedia interactions, create or modify the gudCustDISP1 or gudCustDISP2 stored procedures. You must also modify the attached data configuration file.

   The Interaction Concentrator Installation Package (IP) includes an additional script, SampleProc_<db_type>.sql, as an example of the scripts required to create the database tables and stored procedures for customized attached data processing. For more information, see the section about configuring for the storage of attached data in the *Interaction Concentrator Deployment Guide.*

   Note: Carefully verify the syntax and operation of your modified gudCustDISP1 or gudCustDISP2 stored procedure. Any types of errors or RDBMS violations produced by the custom dispatcher stored procedure can affect Interaction Concentrator processing of all other attached data for voice calls and multimedia interactions.

9. For environments running any Genesys Info Mart 8.1.1 or an earlier 8.1.x release, run either update_idb_for_gim.sql or update_idb_for_gim_mm.sql, as appropriate, *every* time you migrate to a new release of Interaction Concentrator.

   Starting with release 8.1.2, Genesys Info Mart automatically runs the scripts when required.

   For the location of the scripts and detailed instructions, see the *Genesys Info Mart 8.1 Deployment Procedure* or the *Genesys Info Mart 8.1 Deployment Guide*.

Complete the Migration

10. Restore your attached data configuration file (by default, named ccon_adata_spec.xml) by replacing the file in the folder where your Interaction Concentrator Application is installed.
11. Start Interaction Concentrator. For more detailed instructions, see the *Interaction Concentrator Deployment Guide* chapter about starting and stopping Interaction Concentrator.
12. Verify Interaction Concentrator operation by looking for error messages in the log.

    If the upgrade of Interaction Concentrator fails, roll back the migration (see "Rollback Procedures" on page 963).
13. If the migration is successful, uninstall the former Interaction Concentrator Application.

Multi-Site Migration

14. To migrate multi-site or multi-tenant deployments, repeat the migration steps as follows:
    - In a deployment in which each of multiple Interaction Concentrator instances writes to its own IDB, repeat all the steps (Steps 1 through 13) for each Interaction Concentrator instance and each IDB.

- In a deployment in which multiple Interaction Concentrator instances all write to a single, centralized IDB, repeat Steps 1 through 5 and Steps 10 through 13 for each additional Interaction Concentrator instance.

Note: Before you migrate your multi-tenant deployment, verify that all tenants (including the Environment tenant), from whose resources (switches, DNs, and agents) Interaction Concentrator collects data, are added to the Interaction Concentrator Application.

For more information about multi-site migration issues, see "Multi-Site/Single-Site and Multi-Tenant Migration" on page 905.

Rollback Procedures

If the upgrade of Interaction Concentrator fails (see Step 12), complete the following steps to roll back Interaction Concentrator migration:

1. If you upgraded associated components (such as DB Server and T-Servers) and created new Application objects when you upgraded them, modify the connections on the Connections tab of your old Interaction Concentrator Application object, to connect to the new Applications.
2. Stop the newly-installed instance of Interaction Concentrator.
3. Start your previous instance of Interaction Concentrator.

Note: Interaction Concentrator 8.0 can write to an IDB that has been migrated to release 8.1.

4. Uninstall the Interaction Concentrator 8.x Application.

Migration to Release 7.x

This section describes the migration procedures for migrating to the latest general 7.x release of Interaction Concentrator: 7.5.000.16, 7.6.000.16, or 7.6.100.10. For information about migrating to later hot fix releases, see the Deployment Procedure for the specific release to which you are migrating.

Note: Except for the database scripts that you must run, the procedure for migrating from a particular 7.x release to a later 7.x release is always the same. Ensure that you use the IDB upgrade scripts that correspond to the release of Interaction Concentrator to which you are migrating.

As described in "Order of Migration" on page 905, complete the following preliminary procedures before starting your migration of Interaction Concentrator:

1. Migrate Management Framework, as applicable for your deployment.

2. Upgrade other prerequisite Genesys components (for example, T-Server or Interaction Server), as applicable for your deployment.
3. Update the contact center configuration (for example, Place Groups, Agent Groups, and DNs).

Migration Procedures

Follow these migration procedures for your solution:

Upgrade Interaction Concentrator

1. Back up the attached data configuration file (by default, ccon_adata_spec.xml). This file is located in the folder where your existing Interaction Concentrator Application is installed.

Note: If you are upgrading from an earlier 7.5 release of Interaction Concentrator to a later 7.5 release, from an earlier 7.6.0 release to a later 7.6.0 release, or from an earlier 7.6.1 release to a later 7.6.1 release, skip Step 2 and Step 3.

2. Import the Application template for Interaction Concentrator 7.x.

   For more detailed instructions, see the section about deploying Interaction Concentrator in the *Interaction Concentrator 7.x Deployment Guide* chapter about configuration and installation.
3. Create and configure a new 7.x Interaction Concentrator Application object.

   For more detailed instructions, including all the necessary connections to servers, see the chapter about configuring and installing Interaction Concentrator in the *Interaction Concentrator 7.x Deployment Guide*.

Note: If you are upgrading Interaction Concentrator in an environment with Genesys Info Mart, and Genesys Info Mart has already been extracting data from the Interaction Database (IDB) into which the existing Interaction Concentrator Application stores data, do not create a new Interaction Concentrator Application in the Configuration Layer. Instead, use the existing Interaction Concentrator Application. Refer to the *Genesys Info Mart 7.6 Operations Guide* for more information.

4. Install Interaction Concentrator on its host.

   For more detailed instructions about performing the installation for your operating system, see the section about deploying Interaction Concentrator in the *Interaction Concentrator 7.x Deployment Guide* chapter about configuration and installation.

Note: Genesys recommends that you not install the upgraded Interaction Concentrator 7.x in the same folder as your existing Interaction Concentrator. If your company's file management policies do not

allow you to create a new path for Interaction Concentrator 7.x, stop Interaction Concentrator (Step Note:) before you install Interaction Concentrator (Step 4).

Note: Stop Interaction Concentrator if it is running.

Genesys recommends that you use the Genesys Solution Control Interface (SCI) to stop Interaction Concentrator. For more detailed instructions, see the *Interaction Concentrator 7.x Deployment Guide* chapter about starting and stopping Interaction Concentrator.

Note: The content of the persistent queue file (icon_**.pq) is lost as a result of the upgrade. Do not back up the persistent queue file. To minimize the loss of data, perform the upgrade when the contact center load is minimal.

Upgrade IDB

5. (Optional) Back up IDB. Genesys recommends backing up IDB, but only if it is feasible to do so without prolonging the service interruption to an unacceptable extent. Backing up a very large IDB (while Interaction Concentrator is stopped) may interrupt data collection for too long.

Warning! Ensure that no stored procedures are running or are scheduled to run during the upgrade. Stopping Interaction Concentrator does not stop the execution of any stored procedures from the database side.
In particular, if you have automated the merge stored procedure to run on a regular schedule, stop the schedule before you begin the upgrade. Genesys recommends that you allow enough time for two iterations of the procedure to complete before you start the upgrade, in order to ensure that the merge stored procedure is not still in use or locked when you run the database scripts.

6. Execute the applicable database scripts to upgrade IDB. After installation of the Interaction Concentrator Application (Step 4 on page 964), the scripts are located in the scripts subfolder in the directory to which you installed the Application.

   Tables 161 through 165 list the scripts that you must run to upgrade from your existing IDB schema version. Use:
   - Table 161 on page 966 to upgrade from release 7.5.x to 7.6.100.10
   - Table 162 on page 969 to upgrade from release 7.5.x to 7.6.000.16
   - Table 163 on page 970 to upgrade from release 7.2.x to 7.6.100.10
   - Table 164 on page 972 to upgrade from release 7.2.x to 7.6.000.16
   - Table 165 on page 974 to upgrade from release 7.2.x to 7.5.000.16

Execute the scripts in the order indicated in the table, for the Interaction Concentrator release from which you are migrating.

The tables provide the scripts to migrate to the latest general release of Interaction Concentrator 7.6.1, 7.6.0, or 7.5, respectively. For information about migrating to later 7.x hot fix releases, see the Deployment Procedure for the specific release to which you are migrating.

To retrieve information about the database schema for your existing IDB, use the following SQL query:

select VAL from G_DB_PARAMETERS where SECT='schema' and OPT='version'

For information about the IDB schema versions associated with the various Interaction Concentrator releases, see Table 156 on page 940.

Warning! To avoid destroying data that you have already collected, do not run any schema initialization scripts that are not listed in Tables 161 through 165 as applicable for your upgrade.

Note: The IDB initialization scripts for Interaction Concentrator release 7.5.000.12 or later create default (empty) custom dispatchers without first dropping any existing stored procedures named gudCustDisp1 and gudCustDisp2. This is to decrease the risk of overwriting customer-created stored procedures. However, if the custom dispatcher stored procedures gudCustDisp1 and gudCustDisp2 already exist in IDB, the script that creates stored procedures related to call control, login sessions, and user data returns an error, which you can ignore.

Table 161: IDB Scripts to Upgrade from Releases 7.5.x/7.6.0 to Release 7.6.1

Script Name	Description	Release												
		7.5.000.12	7.5.000.16	7.5.000.17	7.5.000.18	7.5.000.19	7.5.000.22	7.5.000.23	7.5.000.24	7.5.000.25	7.5.000.26	7.6.000.16	7.6.000.18	7.6.000.20	7.6.000.21
11_gcc_<db_type>_idx_change_5.sql	Creates indexes to various IDB tables.	1	1	1	1	1									
12_gcc_<db_type>_stp_api_4.sql	Upgrades stored procedures for configuration data tracking.	2	2	2	2	2									

Table 161: IDB Scripts to Upgrade from Releases 7.5.x/7.6.0 to Release 7.6.1 (Continued)

Script Name	Description	Release													
		7.5.000.12	7.5.000.16	7.5.000.17	7.5.000.18	7.5.000.19	7.5.000.22	7.5.000.23	7.5.000.24	7.5.000.25	7.5.000.26	7.6.000.16	7.6.000.18	7.6.000.20	7.6.000.21
13_gcc_<db_type>_svc_change_5.sql	Changes in the service stored procedures.	3	3	3	3	3	1	1	1	1	1				
14_gcc_<db_type>_stp_api_5.sql	Upgrades stored procedures for open media data tracking.	4	4	4	4	4	2	2	2	2	2				
15_gcc_<db_type>_stp_sys_5.sql	Upgrades special (service) stored procedures.	5	5	5	5	5	3	3	3	3	3				
16_gcc_<db_type>_stp_api_6.sql	Updates stored procedures for user data tracking.	6	6	6	6	6	4	4	4	4	4	1			
17_gcc_<db_type>_idx_change_6.sql	Creates index for G_PARTY table.	7	7	7	7	7	5	5	5	5	5	2	1	1	1
18_gcc_<db_type>_stp_api_7.sql	Creates stored procedures related to call control, configuration data, and user data tracking.	8	8	8	8	8	6	6	6	6	6	3	2	2	2
19_gcc_<db_type>_stp_sys_7.sql	Upgrades merge procedure.	9	9	9	9	9	7	7	7	7	7	4	3	3	3
20_gcc_<db_type>_disp.sql	Creates stored procedures for event dispatcher functionality.	10	10	10	10	10	8	8	8	8	8	5	4	4	4
21_gcc_<db_type>_dict.sql	Populates the dictionary tables with metadata.	11	11	11	11	11	9	9	9	9	9	6			
22_gcc_<db_type>_version.sql	Updates the version of the IDB schema.	12	12	12	12	12	10	10	10	10	10	7	5	5	5

Table 161: IDB Scripts to Upgrade from Releases 7.5.x/7.6.0 to Release 7.6.1 (Continued)

Script Name	Description	Release												
		7.5.000.12	7.5.000.16	7.5.000.17	7.5.000.18	7.5.000.19	7.5.000.22	7.5.000.23	7.5.000.24	7.5.000.25	7.5.000.26	7.6.000.16	7.6.000.18	7.6.000.20	7.6.000.21
gcc_<db_type>_clean_init.sql	Creates tables and indexes in IDB to clean up (purge) the database.	13													
gcc_<db_type>_clean_upgrade.sql	Updates tables and indexes in IDB to clean up (purge) the database.		13	13	13	13									
gcc_<db_type>_clean_api.sql	Creates stored procedures to purge IDB.	14	14	14	14	14	11	11	11	11	11				
purge_gcc_<db_type>_proc.sql	Creates service table and stored procedures to new 7.6.1 purge IDB procedure gsysPurge76.	15	15	15	15	15	12	12	12	12	12	8	6	6	6

Note: The scripts subfolder includes two additional scripts—sample_gcc_<db_type>_custdisp_api.sql and sample_gcc_<db_type>_custdisp_schema.sql—to serve as examples of scripts required to customize attached data processing. Do not execute these scripts. For more information, see Step 8 on page 975.

Table 162: IDB Scripts to Upgrade from Release 7.5.x to Release 7.6.0

Script Name	Description	Release							
		7.5.000.12	7.5.000.16	7.5.000.17	7.5.000.18	7.5.000.19	7.5.000.22	7.5.000.23	7.5.000.24
11_gcc_<db_type>_idx_change_5.sql	Creates indexes to various IDB tables.	1	1	1	1	1			
12_gcc_<db_type>_stp_api_4.sql	Upgrade stored procedures for configuration data tracking	2	2	2	2	2			
13_gcc_<db_type>_svc_change_5.sql	Changes in the service stored procedures	3	3	3	3	3	1	1	1
14_gcc_<db_type>_stp_api_5.sql	Upgrade stored procedures for Open Media Data tracking	4	4	4	4	4	2	2	2
15_gcc_<db_type>_stp_sys_5.sql	Upgrade special (service) stored procedures.	5	5	5	5	5	3	3	3
16_gcc_<db_type>_disp.sql	Creates stored procedures for event dispatcher functionality.	6	6	6	6	6	4	4	4
17_gcc_<db_type>_dict.sql	Populates the dictionary tables with metadata.	7	7	7	7	7	5	5	5
18_gcc_<db_type>_version.sql	Updates the version of the IDB schema.	8	8	8	8	8	6	6	6
gcc_<db_type>_clean_init.sql	Creates tables and indexes in IDB to clean up (purge) the database.	9							
gcc_<db_type>_clean_upgrade.sql	Updates tables and indexes in IDB to clean up (purge) the database.		9	9	9	9			
gcc_<db_type>_clean_api.sql	Creates stored procedures to purge IDB.	10	10	10	10	10	7	7	7

Note: The scripts subfolder includes two additional scripts—sample_gcc_<db_type>_custdisp_api.sql and sample_gcc_<db_type>_custdisp_schema.sql—to serve as examples of scripts required to customize attached data processing. Do not execute these scripts. For more information, see Step 8 on page 975.

Table 163: IDB Scripts to Upgrade from Release 7.2.x to Release 7.6.1

Script Name	Description	Release							
		7.2.000.09	7.2.000.14	7.2.000.17	7.2.000.18	7.2.000.19	7.2.000.20	7.2.000.21	7.2.000.22
04_gcc_<db_type>_schema_2.sql	Upgrades the IDB schema to include the G_VIRTUAL_QUEUE table.	1							
05_gcc_<db_type>_stp_api_2.sql	Creates stored procedures that associate calls with Virtual Queues.	2							
06_gcc_<db_type>_schema_3.sql	Upgrades the IDB schema to include custom-state tables.	3	1	1	1	1	1	1	1
07_gcc_<db_type>_idx_change_3.sql	Creates indexes to various IDB tables.	4	2	2	2	2	2	2	2
08_mcr_<db_type>_schema.sql	Upgrades the IDB schema to include the Multimedia user data tables.	5	3	3	3	3	3	3	3
09_gcc_<db_type>_stp_api_3.sql	Creates stored procedures related to call control, login sessions, and user data.	6	4	4	4	4	4	4	4
10_gcc_<db_type>_stp_sys_3.sql	Creates special (service) stored procedures.	7	5	5	5	5	5	5	5
11_gcc_<db_type>_idx_change_5.sql	Creates indexes to various IDB tables.	8	6	6	6	6	6	6	6
12_gcc_<db_type>_stp_api_4.sql	Upgrades stored procedures for configuration data tracking.	9	7	7	7	7	7	7	7
13_gcc_<db_type>_svc_change_5.sql	Changes in the service stored procedures.	10	8	8	8	8	8	8	8
14_gcc_<db_type>_stp_api_5.sql	Upgrades stored procedures for Open Media Data tracking.	11	9	9	9	9	9	9	9

Table 163: IDB Scripts to Upgrade from Release 7.2.x to Release 7.6.1 (Continued)

Script Name	Description	Release							
		7.2.000.09	7.2.000.14	7.2.000.17	7.2.000.18	7.2.000.19	7.2.000.20	7.2.000.21	7.2.000.22
15_gcc_<db_type>_stp_sys_5.sql	Upgrades special (service) stored procedures.	12	10	10	10	10	10	10	10
16_gcc_<db_type>_stp_api_6.sql	Upgrades stored procedures for user data tracking.	13	11	11	11	11	11	11	11
17_gcc_<db_type>_idx_change_6.sql	Creates index for G_PARTY IDB table.	14	12	12	12	12	12	12	12
18_gcc_<db_type>_stp_api_7.sql	Creates stored procedures related to call control, configuration data, and user data tracking.	15	13	13	13	13	13	13	13
19_gcc_<db_type>_stp_sys_7.sql	Upgrades merge procedure.	16	14	14	14	14	14	14	14
20_gcc_<db_type>_disp.sql	Creates stored procedures for event dispatcher functionality.	17	15	15	15	15	15	15	15
21_gcc_<db_type>_dict.sql	Populates the dictionary tables with metadata.	18	16	16	16	16	16	16	16
22_gcc_<db_type>_version.sql	Updates the version of the IDB schema.	19	17	17	17	17	17	17	17
gcc_<db_type>_clean_init.sql	Creates tables and indexes in IDB to clean up (purge) the database.	20	18	18	18	18	18	18	18
gcc_<db_type>_clean_upgrade.sql	Updates tables and indexes in IDB to clean up (purge) the database.								
gcc_<db_type>_clean_api.sql	Creates stored procedures to purge IDB.	21	19	19	19	19	19	19	19

Table 163: IDB Scripts to Upgrade from Release 7.2.x to Release 7.6.1 (Continued)

Script Name	Description	Release							
		7.2.000.09	7.2.000.14	7.2.000.17	7.2.000.18	7.2.000.19	7.2.000.20	7.2.000.21	7.2.000.22
purge_gcc_<db_type>_proc.sql	Creates service tables and stored procedures to new 7.6.1 purge IDB procedure, gsysPurge76.	22	20	20	20	20	20	20	20
Note: The scripts subfolder includes two additional scripts—sample_gcc_<db_type>_custdisp_api.sql and sample_gcc_<db_type>_custdisp_schema.sql—to serve as examples of scripts required to customize attached data processing. Do not execute these scripts. For more information, see Step 8 on page 975.									

Table 164: IDB Scripts to Upgrade from Release 7.2.x to Release 7.6.0

Script Name	Description	Release							
		7.2.000.09	7.2.000.14	7.2.000.17	7.2.000.18	7.2.000.19	7.2.000.20	7.2.000.21	7.2.000.22
04_gcc_<db_type>_schema_2.sql	Upgrades the IDB schema to include the G_VIRTUAL_QUEUE table.	1							
05_gcc_<db_type>_stp_api_2.sql	Creates stored procedures that associate calls with Virtual Queues.	2							
06_gcc_<db_type>_schema_3.sql	Upgrades the IDB schema to include custom-state tables.	3	1	1	1	1	1	1	1
07_gcc_<db_type>_idx_change_3.sql	Creates indexes to various IDB tables.	4	2	2	2	2	2	2	2
08_mcr_<db_type>_schema.sql	Upgrades the IDB schema to include the Multimedia user data tables.	5	3	3	3	3	3	3	3

Table 164: IDB Scripts to Upgrade from Release 7.2.x to Release 7.6.0 (Continued)

Script Name	Description	Release							
		7.2.000.09	7.2.000.14	7.2.000.17	7.2.000.18	7.2.000.19	7.2.000.20	7.2.000.21	7.2.000.22
09_gcc_<db_type>_stp_api_3.sql	Creates stored procedures related to call control, login sessions, and user data.	6	4	4	4	4	4	4	4
10_gcc_<db_type>_stp_sys_3.sql	Creates special (service) stored procedures.	7	5	5	5	5	5	5	5
11_gcc_<db_type>_idx_change_5.sql	Creates indexes to various IDB tables.	8	6	6	6	6	6	6	6
12_gcc_<db_type>_stp_api_4.sql	Upgrades stored procedures for configuration data tracking	9	7	7	7	7	7	7	7
13_gcc_<db_type>_svc_change_5.sql	Changes in the service stored procedures	10	8	8	8	8	8	8	8
14_gcc_<db_type>_stp_api_5.sql	Upgrades stored procedures for Open Media Data tracking	11	9	9	9	9	9	9	9
15_gcc_<db_type>_stp_sys_5.sql	Upgrades special (service) stored procedures.	12	10	10	10	10	10	10	10
16_gcc_<db_type>_disp.sql	Creates stored procedures for event dispatcher functionality.	13	11	11	11	11	11	11	11
17_gcc_<db_type>_dict.sql	Populates the dictionary tables with metadata.	14	12	12	12	12	12	12	12
18_gcc_<db_type>_version.sql	Updates the version of the IDB schema.	15	13	13	13	13	13	13	13
gcc_<db_type>_clean_init.sql	Creates tables and indexes in IDB to clean up (purge) the database.	16	14	14	14	14	14	14	14
gcc_<db_type>_clean_upgrade.sql	Updates tables and indexes in IDB to clean up (purge) the database.								

Table 164: IDB Scripts to Upgrade from Release 7.2.x to Release 7.6.0 (Continued)

Script Name	Description	Release							
		7.2.000.09	7.2.000.14	7.2.000.17	7.2.000.18	7.2.000.19	7.2.000.20	7.2.000.21	7.2.000.22
gcc_<db_type>_clean_api.sql	Creates stored procedures to purge IDB.	17	15	15	15	15	15	15	15
Note: The scripts subfolder includes two additional scripts—sample_gcc_<db_type>_custdisp_api.sql and sample_gcc_<db_type>_custdisp_schema.sql—to serve as examples of scripts required to customize attached data processing. Do not execute these scripts. For more information, see Step 8 on page 975.									

Table 165: IDB Scripts to Upgrade from Release 7.2.x to Release 7.5

Script Name	Description	Release		
		7.2.000.09	7.2.000.14 (or higher)	7.5.000.12
03_gcc_<db_type>_dict.sql	Populates the dictionary tables with metadata.	1	1	
05_gcc_<db_type>_dict_2.sql	Upgrades the dictionary tables to include causes for Virtual Queue states.	2		
06_gcc_<db_type>_schema_2.sql	Upgrades the IDB schema to include the G_VIRTUAL_QUEUE table.	3		
07_gcc_<db_type>_stp_api_2.sql	Creates stored procedures that associate calls with Virtual Queues.	4		
08_gcc_<db_type>_dict_3.sql	Upgrades the dictionary tables to include metadata for different media types.	5	2	
09_gcc_<db_type>_schema_3.sql	Upgrades the IDB schema to include custom-state tables.	6	3	
10_gcc_<db_type>idx_change_3.sql	Creates indexes to various IDB tables.	7	4	
11_mcr_<db_type>_schema.sql	Upgrades the IDB schema to include the Multimedia user data tables.	8	5	

Table 165: IDB Scripts to Upgrade from Release 7.2.x to Release 7.5 (Continued)

Script Name	Description	Release		
		7.2.000.09	7.2.000.14 (or higher)	7.5.000.12
12_gcc_<db_type>_stp_api_3.sql	Creates stored procedures related to call control, login sessions, and user data.	9	6	
13_gcc_<db_type>_stp_sys.sql	Creates special (service) stored procedures.	10	7	1
14_gcc_<db_type>_disp.sql	Creates stored procedures for event dispatcher functionality.	11	8	
15_gcc_<db_type>_version.sql	Updates the version of the IDB schema.	12	9	2
gcc_<db_type>_clean_init.sql (optional)	Creates tables and indexes in IDB to clean up the database after purging.	13	10	3
gcc_<db_type>_clean_api.sql (optional)	Creates stored procedures to purge IDB.	14	11	4
Note: The scripts subfolder includes two additional scripts—sample_gcc_<db_type>_custdisp_api.sql and sample_gcc_<db_type>_custdisp_schema.sql—to serve as examples of scripts required to customize attached data processing. Do not execute these scripts. For more information, see Step 8.				

7. If you are upgrading from an Interaction Concentrator release earlier than 7.5.000.12 to release 7.5.000.12 or later, prepare and run ALTER TABLE scripts to further modify the existing schema. For details about the required modifications, see “Data types/field sizes changes” on page 943.
8. (Optional) To implement Interaction Concentrator 7.6 support for customized handling of user data that is attached to voice calls, modify the empty gudCustDisp1 or gudCustDisp2 stored procedures that the IDB scripts create. You must also modify the attached data configuration file.

   The sample_gcc_<db_type>_custdisp_api.sql script is an example of how you can modify the custom dispatcher stored procedure. Similarly, the sample_gcc_<db_type>_custdisp_schema.sql script is an example of a script to create a custom attached data storage table.

   For more information, see the section about customized attached data processing, in the *Interaction Concentrator 7.6 Deployment Guide* chapter about attached data.

Note: Carefully verify the syntax and operation of your modified gudCust Disp1 or gudCustDisp2 stored procedure. Any types of errors or RDBMS violations produced by the custom dispatcher stored procedure can affect Interaction Concentrator processing of all other attached data for voice calls and Multimedia interactions.

Complete the Migration

9. Restore the attached data configuration file (by default, named ccon_adata_spec.xml).
   a. Update the attached data configuration file as required to implement the new functionality provided by the Interaction Concentrator release to which you are upgrading. For more information, see the chapter about attached data in the *Interaction Concentrator 7.6 User's Guide* or the *Interaction Concentrator 7.5 Deployment Guide,* as applicable.
   b. Replace the attached data configuration file in the folder where your upgraded Interaction Concentrator 7.x Application is installed.
10. Start the upgraded 7.x Interaction Concentrator. For more detailed instructions, see the *Interaction Concentrator 7.x Deployment Guide* chapter about starting and stopping Interaction Concentrator.
11. Verify Interaction Concentrator 7.x operation by looking for error messages in the log.

    If the upgrade of Interaction Concentrator fails, roll back the migration (see "Rollback Procedures" on page 977).
12. If the migration is successful, uninstall the former Interaction Concentrator Application.

Multi-Site Migration

13. To migrate multi-site or multi-tenant deployments, repeat the migration steps as follows:
    - In a deployment in which each of multiple Interaction Concentrator instances writes to its own IDB, repeat all the steps (Steps 1 through 12) for each Interaction Concentrator instance and each IDB.
    - In a deployment in which multiple Interaction Concentrator instances all write to a single, centralized IDB, repeat Steps 1 through Note: and Steps 9 through 12 for each additional Interaction Concentrator instance.

Note: Before you migrate your multi-tenant deployment, verify that all tenants (including the Environment tenant), from whose resources (switches, DNs, and agents) Interaction Concentrator collects data, are added to the Interaction Concentrator Application.

For more information about multi-site migration issues, see "Multi-Site/Single-Site and Multi-Tenant Migration" on page 905.

Rollback Procedures

If the upgrade of Interaction Concentrator fails (see Step 11 on page 976), complete the following steps to roll back Interaction Concentrator 7.6.x migration:

1. On the Connections tab of the former Interaction Concentrator Application object, modify the connections as required, to connect to the upgraded Management Framework components (DB Server and Database Access Points) and T-Servers.
2. Stop Interaction Concentrator.
3. Start Interaction Concentrator.

> **Note:** An earlier Interaction Concentrator can write to an IDB that has been migrated to a later release.

4. Re-create the old merge stored procedure:
   - If you migrated from release 7.2 or 7.5 to release 7.6.x, run 10_gcc_<db_type>_stp_sys_3.sql (in the Interaction Concentrator 7.6 scripts folder).
   - If you migrated from release 7.2 or 7.5 to release 7.5.x, run 13_gcc_<db_type>_stp_sys.sql (in the Interaction Concentrator 7.5 scripts folder).

Uninstall the upgraded Interaction Concentrator 7.x Application.

Part

17 Genesys Info Mart 7.x Migration

The chapters in this section describe the migration process for Genesys Info Mart 7.x. They also describe how to migrate other Genesys solutions, and third-party software components, that support and enable Genesys Info Mart functionality.

Note: The migration process for Genesys Info Mart 8.x releases is described in a separate section of the *Genesys Migration Guide*.

The information is divided into the following chapters:

- Chapter 50, "Introduction to Genesys Info Mart 7.x Migration," on page 981, provides an introduction to Genesys Info Mart migration.
- Chapter 51, "Changes in Genesys Info Mart 7.x," on page 989, describes the changes in Genesys Info Mart functionality from one release to the next.
- Chapter 52, "Genesys Info Mart Migration Procedures," on page 1039, presents a high-level description of the procedures that you must follow to deploy or migrate Genesys Info Mart.

Before proceeding, review the architecture section in the *Genesys Info Mart Deployment Guide* to familiarize yourself with the product architecture.

Notes:

- The current version of this document covers migration information for Genesys Info Mart up to general release 7.6.014. If you are migrating your Genesys Info Mart from release 7.5, 7.2, or 7.0 to a general release later than 7.6.014.x, contact Genesys Technical Support for available migration instructions. If you are upgrading your Genesys Info Mart from a 7.6 release to a later 7.6 release, consult the Deployment Procedure supplied with the release to which you are upgrading.
- Be sure to review the information in all the Genesys Info Mart Migration chapters before performing any migration procedures.

Chapter

50 Introduction to Genesys Info Mart 7.x Migration

Genesys Info Mart produces a data mart containing several star schemas you can use for contact center historical reporting. The following Genesys Info Mart migration scenarios are described in this guide:

- Migration from Genesys Info Mart 7.5.x to Genesys Info Mart 7.6.x.
- Migration from Genesys Info Mart 7.2.x to Genesys Info Mart 7.6.x.
- Migration from Genesys Info Mart 7.2.x to Genesys Info Mart 7.5.x.
- Migration from Genesys Info Mart 7.0.2 to Genesys Info Mart 7.6.x.
- Migration from Genesys Info Mart 7.0.2 to Genesys Info Mart 7.5.x.
- Migration from Genesys Info Mart 7.0.2 to Genesys Info Mart 7.2.0.
- Migration from Genesys Info Mart 7.0.1 to Genesys Info Mart 7.0.2.

Note: Your migration considerations include Genesys Info Mart software and its supporting software components.

This chapter contains the following sections:

Preliminary Migration Procedures

The migration process includes these preliminary procedures for Genesys Info Mart.

1. Review the "Migration Roadmap" section of the *Genesys Migration Guide.*
2. Review "Supporting Software Components" on page 983 for a list of software components that support Genesys Info Mart functionality.
3. Review the chapter about planning in the *Genesys Info Mart Deployment Guide* to familiarize yourself with the factors you need to consider when planning your Genesys Info Mart deployment.
4. Review the licensing requirements for Genesys Info Mart. See the *Genesys Licensing Guide* for more information.

   Note: Starting with release 7.5, Genesys Info Mart does not require technical licenses.

5. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.
6. Review the new features and component changes in the appropriate release-specific sections in "Changes in Genesys Info Mart 7.x" on page 989.
7. Review the configuration option changes in the appropriate release-specific sections in "Changes in Genesys Info Mart 7.x" on page 989. For complete information about configuration options, see the *Genesys Info Mart Deployment Guide*.
8. Review the Info Mart database schema changes in the appropriate release-specific sections in "Changes in Genesys Info Mart 7.x" on page 989. For complete information about the Info Mart database schema, see the *Genesys Info Mart Reference Manual* for your DB2, Microsoft SQL Server, or Oracle database.

Supporting Software Components

Several software components support Genesys Info Mart functionality. Table 166 provides a list of supporting software components that you must consider for your release of Genesys Info Mart.

Table 166: Supporting Software Components

Component	Genesys Info Mart Release				
	7.0.1	7.0.2	7.2.x	7.5.x	7.6.x
Operating Systems and Third-Party Software					
Operating system for Genesys Info Mart	Yes	Yes	Yes	Yes	Yes
Operating system for Data Integrator	Yes	Yes	Yes		
Browser software for Data Integrator	Yes	Yes	Yes		
JRE/JDK for Genesys Info Mart	Yes	Yes	Yes	Yes	Yes
JRE/JDK for Data Integrator	Yes	Yes	Yes		
JDBC Driver			Yes	Yes	Yes
Data Source RDBMS (Server and Client)					
Configuration Database	Yes	Yes	Yes		
Call Concentrator Database	Yes	Yes	Yes		
Interaction Database			Yes	Yes	Yes
Stat Server Database	Yes	Yes	Yes	Yes	Yes [a]
GVP VAR Database				Yes	Yes
Target RDBMS (Server and Client)					
Data Integrator Local Repository	Yes	Yes	Yes		

Table 166: Supporting Software Components (Continued)

Component	Genesys Info Mart Release				
	7.0.1	7.0.2	7.2.x	7.5.x	7.6.x
Staging Area Database	Yes	Yes	Yes	Yes	Yes
Info Mart Database	Yes	Yes	Yes	Yes	Yes

a. For backward compatibility with legacy reporting environments only.

Recommendations

You must consider the following recommendations for the supporting software components if applicable to your release of Genesys Info Mart:

- Operating Systems on which you will install the Data Integrator and Genesys Info Mart components. See the *Genesys Supported Operating Environment Reference Guide* for more information.
- Browser software you use to communicate with Data Integrator. See the *Genesys Supported Operating Environment Reference Guide* for more information.

> **Note:** Starting with release 7.5, Genesys Info Mart does not require Data Integrator.

- Java Runtime Environment (JRE), Java Development Kit (JDK), and Java Database Connectivity (JDBC) driver that Data Integrator and Genesys Info Mart use. For more information, see the section about software requirements in the *Genesys Info Mart Deployment Guide*.
- Relational Database Management System (RDBMS) software:
  - Database servers that contain Genesys application data (Configuration Server, Call Concentrator, Interaction Concentrator, Stat Server, and Genesys Voice Platform [GVP] Voice Application Reporter [VAR] databases).
  - Database servers that contain Genesys Info Mart data (Data Integrator Local Repository, Staging Area, and Info Mart databases).
  - Database client software that the Data Integrator Designer, Job Server, and Genesys Info Mart use to access the Local Repository, Configuration Server, Call Concentrator, Interaction Concentrator, Stat Server, GVP VAR, and Staging Area and Info Mart databases. (With the exception of Genesys Info Mart Administration Console, Genesys Info Mart does not use Genesys DB Server to access databases.)

Note: Genesys recommends that you install the same versions of the RDBMS client and server components. Consult your RDBMS vendor for information about client/server interoperability.

For more information, see the *Genesys Supported Operating Environment Reference Guide*.

Review the planning chapter in the *Genesys Info Mart Deployment Guide*, for an overview of the product architecture, and a list of Genesys applications and components that interact with Genesys Info Mart. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.

Genesys Info Mart 7.x Migration Matrix

When you are migrating Genesys Info Mart from an earlier release to a later release, you may be able to do so in one stage (as, for example, with migration from release 7.5 to 7.6) or your migration may involve two or more stages (as, for example, with migration from release 7.2 to 7.6.x).

Use Table 167 for a quick reference to all of the stages that are necessary for migration from your current Genesys Info Mart release to the target release.

Notes:

- Generally, you can migrate to the currently shipping version in each 7.x.x target release. However, when migrating from 7.2 to 7.5 you must migrate to release 7.5.005.17, or a later 7.5 release.
- For the list of specific 7.5.x releases from which you can migrate to release 7.6.x, see page 1040.

Table 167: Genesys Info Mart 7.x Migration Matrix

Current Release	Target Release			
	7.0.2	7.2.x	7.5.x	7.6.x
7.0.1	Migrating Genesys Info Mart from 7.0.1 to 7.0.2, page 1076	1. Migrating Genesys Info Mart from 7.0.1 to 7.0.2, page 1076 2. Migrating Genesys Info Mart from 7.0.2 to 7.2.x, page 1063	1. Migrating Genesys Info Mart from 7.0.1 to 7.0.2, page 1076 2. Migrating Genesys Info Mart from 7.0.2 to 7.2.x, page 1063 3. Migrating Genesys Info Mart from 7.2.x to 7.5.x, page 1054	1. Migrating Genesys Info Mart from 7.0.1 to 7.0.2, page 1076 2. Migrating Genesys Info Mart from 7.0.2 to 7.2.x, page 1063 3. Migrating Genesys Info Mart from 7.2.x to 7.5.x, page 1054 4. Migrating Genesys Info Mart from 7.5.x to 7.6.x, page 1040
7.0.2		Migrating Genesys Info Mart from 7.0.2 to 7.2.x, page 1063	1. Migrating Genesys Info Mart from 7.0.2 to 7.2.x, page 1063 2. Migrating Genesys Info Mart from 7.2.x to 7.5.x, page 1054	1. Migrating Genesys Info Mart from 7.0.2 to 7.2.x, page 1063 2. Migrating Genesys Info Mart from 7.2.x to 7.5.x, page 1054 3. Migrating Genesys Info Mart from 7.5.x to 7.6.x, page 1040
7.2.x			Migrating Genesys Info Mart from 7.2.x to 7.5.x, page 1054	1. Migrating Genesys Info Mart from 7.2.x to 7.5.x, page 1054 2. Migrating Genesys Info Mart from 7.5.x to 7.6.x, page 1040
7.5.x				Migrating Genesys Info Mart from 7.5.x to 7.6.x, page 1040

Reference Materials

Refer to the following reference materials when planning your Genesys Info Mart migration. Make sure you use the appropriate release-specific version of each document.

- *Genesys Info Mart 7.x Deployment Guide*
- *Genesys Info Mart 7.x Operations Guide*
- *Genesys Info Mart 7.x Reference Manual* for your DB2, Microsoft SQL Server, or Oracle database
- *Genesys Info Mart 7.x Database Size Estimator*
- *Genesys Info Mart 7.x Release Notes and Release Advisory*
- *Genesys Licensing Guide*
- *Genesys Supported Operating Environment Reference Guide*
- *Genesys Interoperability Guide*
- *Genesys Hardware Sizing Guide*
- *Interaction Concentrator Deployment Guide*
- *Interaction Concentrator User's Guide* (new in release 7.6)

Chapter

51 Changes in Genesys Info Mart 7.x

This section describes the changes in Genesys Info Mart's capabilities, configuration options, and database schema from one 7.x release to the next. For complete information about Genesys Info Mart 7.x, refer to the technical publications listed in "Reference Materials" on page 987.

This chapter contains the following sections:

Content Changes in Genesys Info Mart 7.6

Notes:

- Genesys Info Mart 7.6 is considered a major software release that contains many functional enhancements.
- Genesys *strongly* recommends that you carefully plan your migration and practice migrating to Genesys Info Mart 7.6 in a non-production environment *before* performing the migration in your production environment.
- If you choose to enable some of the new functionality that requires Interaction Concentrator 7.6, do not create a new ICON `Application` object in the Configuration Layer when upgrading Interaction Concentrator. Instead, use the existing `Application` in the Configuration Layer when you install the Interaction Concentrator upgrade. Refer to the *Genesys Info Mart 7.6 Operations Guide* for details.

New Functionality

Genesys Info Mart 7.6 provides the following new functionality or changed functionality:

- Provides a new ETL job, `Job_MigrateGIM`, to migrate the data from the Staging Area and Genesys Info Mart databases of release 7.5 to release 7.6.
- Extracts voice agent state and reason details from Interaction Database (IDB), instead of from Stat Server. New Info Mart fact tables store details about states, reasons, and do-not-disturb (DND) modes for voice and Multimedia.

  Note: For backward compatibility with deployments of earlier Genesys Info Mart releases only, Genesys Info Mart continues to provide data extraction of voice agent state and reason details from the Stat Server database.

- Provides high availability (HA) data extraction for voice agent login session, state and state reason, and DND mode details, which are extracted from an IDB that is populated by Interaction Concentrator (ICON) release 7.6 that has been configured appropriately. (T-Server release 7.6 is required.)
- Loads Open Media interaction and agent activity details from an IDB into the Info Mart database, in an environment with release 7.6 of Interaction Concentrator and Interaction Server. (*Open Media* refers to a custom media channel that is supported on top of Genesys Multimedia. The `Workitem` media type is an example of Open Media.)

- Loads active Multimedia virtual queue details into the Info Mart database, and links virtual queue details to their corresponding target Multimedia interaction segment details.
- Loads active Multimedia chat interactions into the Info Mart database. Previously, only completed chat interactions were loaded into the Info Mart database.
- Provides HA data extraction for contact center configuration history details, which are extracted from IDBs that are populated by ICON release 7.6.
- Extracts data from IDB following the use of the Interaction Concentrator feature for resynchronization of configuration data.
- Provides data-quality improvements in HA data extraction for voice interaction details by comparing voice interaction data between the IDBs that constitute the HA pair.
- Provides detailed reasons for interactions that are cleared from a virtual queue, such as:
  - Target is cleared by routing strategy.
  - Interaction is routed by another, parallel virtual queue.
  - Interaction is default-routed by strategy.
  - Multimedia interaction is pulled back from strategy due to timeout.

Notes:

- The support for all four clearance scenarios requires an environment with 7.6 releases of both Universal Routing Server and Interaction Concentrator that has been configured appropriately.
- In addition, the fourth clearance scenario requires Interaction Server release 7.6 to report when a Multimedia interaction is cleared from a virtual queue or pulled from a routing strategy because it was not routed within the timeout configured for routing in Interaction Server.

- Provides uninterrupted durations for `After Call Work` (ACW) (for voice only) and `Not Ready` states, when interactions are initiated or received while in these states, in an environment with Interaction Concentrator release 7.6 that has been configured appropriately.

Note: For voice, the newly introduced fact tables in release 7.6 contain the data for this feature; the data is not available in the legacy fact tables that are implemented in previous releases.

- Provides data to calculate the number of voice interactions that are initiated or received while the agent is in ACW (voice only) or `Not Ready` states, in an environment with Interaction Concentrator release 7.6 that has been configured appropriately.

  Note: For voice, the newly introduced fact tables in release 7.6 contain the data for this feature; the data is not available in the legacy fact tables that are implemented in previous releases.

- Associates ACW with the ACD or routed call, instead of with a consultation call, for the case in which the consultation call outlasts the original inbound customer call, in an environment with Interaction Concentrator release 7.6 that has been configured appropriately.
- Provides data to measure agent-to-agent consult talk duration, even if the consultation included an Interactive Voice Response (IVR) application or voice treatment port before the target agent answered the consultation.

  Note: The newly introduced fact tables in release 7.6 contain the data for this feature; the data is not available in the legacy fact tables that are implemented in previous releases.

- Provides a set of new agent and interaction summary tables that facilitate aggregation for agent state and inbound voice interaction reporting.
- Provides several new interval-based and disposition-based aggregates, for use with either Genesys Interactive Insights (GI2) or your own custom reports.
- Provides configurable control of transaction sizes for data that is loaded in, aggregated in, and purged from the Info Mart database. This functionality provides improved capability for customers to control the database resources that are required to run the ETL jobs.
- Starting with Genesys Info Mart release 7.6.004:
  - Provides the ability to extract UserEvent-based key-value pair (KVP) data that is sent within a configurable timeout after the associated voice interaction ends.
  - Provides the ability, at your option, to include the last five minutes of extracted voice agent activity data when transforming data in a simple contact center environment. This functionality improves the accuracy of agent reports for a given business day in a contact center that operates less than 24 hours a day. (A *simple* contact center is the one where an agent only logs in to a single switch, DN, or queue at a time, and where reporting requirements do *not* include the factoring of Do-Not-Disturb [DND] mode into summarized resource states and resource state reasons.)
- Starting with Genesys Info Mart release 7.6.005:
  - Provides enhanced support for reporting tools such as GI2 to report on:

- Additional categories of calls.
- The business attributes assigned to interactions from queues.
- Inbound interactions that had a defined Baseline Service Objective and were offered to a resource.
- The number of times inbound interactions were answered.

- Improves ETL performance by enabling you to specify the frequency with which the intraday aggregation portion of `Job_LoadRecent` will run.
- Supports a new Technical Descriptor combination that enables Genesys Info Mart to recognize and properly report the scenario when an agent pulls a Multimedia interaction from a strategy.

- Starting with Genesys Info Mart release 7.6.006:
  - Introduces a number of internal improvements to ETL algorithms and processes and to the database schemas to improve Genesys Info Mart performance in large-scale, inbound voice contact centers. Improvement in ETL performance was observed during testing in large-scale, inbound voice deployments using Oracle 10 and running the ETL on either Solaris 10 or Windows 2003.

    New configuration options control those performance enhancements that are not relevant for smaller-scale contact centers or that modify existing functionality. The default settings of the new options maintain compatibility with existing deployments.

    To further enhance scalability, Genesys Info Mart release 7.6.006 extends native operating system support to include 64-bit Solaris 10 and 64-bit Windows 2003 operating systems.

    In addition to the performance enhancements that are intended for large-scale deployments, Genesys Info Mart release 7.6.006 improves ETL performance and reduces database storage requirements by optionally enabling you to:
    - Disable the storage of voice Interaction Segment Facts.
    - Reduce the number of days that datamust be stored, before it can be purged.
    - Limit automatic aggregation to a configured time range.
    - Automatically ignore unresolved references to configuration objects when running ETL jobs.
  - Optionally enables you to populate a separate row in the `INTERACTION_RESOURCE_FACT` table for data, including user data, associated with the consultation initiation segment of an interaction (resource role is `INITIATEDCONSULT`).

- Starting with Genesys Info Mart release 7.6.007:
  - Improves ETL and Administration Console performance by providing a mechanism for purging historical information in the Staging Area database about steps that the ETL has performed related to job execution, source data extraction, target table loading, table purging, and data aggregation.
  - Improves the performance of the interval-based aggregation queries used to populate data for the Interaction-Agent Interval and Agent-State Interval aggregates by providing a new configuration option to control the time span to consider when matching facts between fact tables in an interval-based aggregation query.
  - Enables the time range of data that is aggregated in a single database transaction by `Job_LoadRecent` and `Job_AggregateGIM` aggregation queries to be specified in hours.
  - When running `Job_ExtractICON` from the Administration Console, extracts data from all Voice details IDBs, even if you specified only a single DAP with the `ICON_CORE` role.
- Starting with Genesys Info Mart release 7.6.008:
  - Provides high availability (HA) data extraction for Outbound Contact details, which are extracted from an IDB that is populated by Interaction Concentrator release 8.0 and has been configured appropriately. See the *Genesys Info Mart 7.6.x Release Notes* for the minimum release of Interaction Concentrator 8.0 that is required to support this functionality.
  - Enables automatic retry of any failed job or Genesys Info Mart Server exception using a configured number of retries with a configurable delay between retries.
  - Provides support for the automated rerun of `Job_ExtractICON` for `role=ICON_CFG` and of `Job_TransformGIM` when `Job_TransformGIM` fails after encountering an unresolved reference to a configuration object.
  - Provides support for extracting voice interaction data from topologies where not all T-Servers or IVR Servers involved in the call flow are monitored by ICON. For example, this feature enables Info Mart to provide reporting data in the following types of environments:
    - Network routing or network parking are used, but you want Genesys Info Mart to store data for only the premise portions of the interactions.
    - There are multiple sites or multiple tenants, but you want Genesys Info Mart to store data for only some of the sites or tenants.
- Starting with Genesys Info Mart release 7.6.009:
  - Provides new aggregate measures to enable reporting tools to report on:
    - Total time to distribute interactions from an ACD or virtual queue.

        - Maximum time to distribute interactions from an ACD or virtual queue.
        - Total time to divert (clear) an interaction from a virtual queue.
        - Maximum time to divert (clear) an interaction from a virtual queue.
    - Provides you the option to maintain database table statistics for fact tables in the Info Mart database on your own, or to continue letting Genesys Info Mart maintain them as needed by the ETL. New Genesys Info Mart application options have been added to support this new capability.
- Starting with Genesys Info Mart release 7.6.010:
    - Provides the capability to map more than one Outbound Contact Record Field to each `RECORD_FIELD_*` column in `CONTACT_ATTEMPT_FACT`, `RECORD_FIELD_GROUP_1` or `RECORD_FIELD_GROUP_2`. Previously, only one Outbound Contact Record Field could be mapped to each `RECORD_FIELD_*` column. This capability is useful for deployments that have many calling lists with different record fields. Reports can use the `CALLING_LIST` dimension to determine which Outbound Contact Record Fields are stored in each `RECORD_FIELD_*` column.
    - Provides the capability, when deployed on an Oracle database, to store the full range of `NUMBER(10)` values in `USER_DATA_6` through `USER_DATA_10` in `INTERACTION_SEGMENT_FACT` and `INTERACTION_RESOURCE_FACT`. Previously, only values less than or equal to 2147483647 could be stored.
- Starting with Genesys Info Mart release 7.6.011:
    - Provides support for the Interaction Concentrator 8.0 capability for voice interactions to associate call-based Key-Value Pair (KVP) data with the Routing Point or Agent party that attached or updated the KVP data when they are no longer an active call party. For more information about this capability, see the *Interaction Concentrator 8.0 User's Guide*.
    - Provides support for the Interaction Concentrator 7.6.1 and 8.0 capability to continue storing information about Multimedia interactions that are active when the Interaction Concentrator application is stopped and subsequently restarted. For information about configuring Interaction Concentrator options to enable this capability, see the *Genesys Info Mart 7.6 Deployment Guide*. For procedures you should follow to restart Interaction Concentrator in order to minimize data loss or data quality issues, see the *Genesys Info Mart 7.6 Operations Guide*.
    - Provides support for Oracle 11g R1. For more information about preparing the Genesys Info Mart Server to use Oracle 11g R1, see the *Genesys Info Mart 7.6 Deployment Guide*.
    - Provides support for Oracle 10g R2 RAC. For more information about how to deploy Genesys Info Mart for Oracle 10g R2 RAC, see the *Genesys Info Mart 7.6 Deployment Guide*.

  - Provides support for installing Genesys Info Mart Administration Console under Configuration Manager 8.0 on the Microsoft Windows 7 Operating System.
- Starting with Genesys Info Mart release 7.6.012:
  - Provides new disposition-based aggregates, `AG2_OUT_V_IXN_AGENT_*` and `AG2_OUT_V_IXN_AGENT_GRP_*`, from which you can build your own custom reports to measure agent and agent group handling of outbound and internal voice interactions based on key business attributes, such as customer segment, service type, and service subtype.
  - Provides native support for the Windows Server 2008 64-bit and Red Hat Enterprise Linux AS 64-bit operating systems.

Note: Genesys Info Mart 7.6 does not support the Transport Layer Security (TLS) protocol feature that was introduced in the 7.5 release of other Genesys components.

Technical Descriptor Key Changes

In Genesys Info Mart release 7.6.003, modifications were made to `technical_descriptor` dimension keys. As a result, technical descriptor keys for two rows in release 7.6.003 differ from those in release 7.5.005.05 or a later 7.5 release. When you run `Job_MigrateGIM` as part of the non-critical data migration, the job will re-assign the keys and adjust all impacted fact table rows that refer to the related dimension rows.

If you are migrating from release 7.5.005.05 or a later 7.5 release, you need to analyze and make your own adjustments to any custom fact, summary, or aggregate tables that you built using keys from the two affected rows. Table 168 provides the two rows that this change affects.

Table 168: Technical Descriptor Dimension Key Changes

TECHNICAL_DESCRIPTOR_KEY		RESOURCE_ ROLE_CODE	ROLE_REASON_CODE	TECHNICAL_ RESULT_CODE	RESULT_REASON_ CODE
Old Value[a]	New Value[b]				
102	140	INCONFERENCE	CONFERENCEJOINED	REDIRECTED	ROUTEONNOANSWER
103	141	INCONFERENCE	CONFERENCEJOINED	REDIRECTED	UNSPECIFIED

a. In Genesys Info Mart release 7.5.005

b. Starting from Genesys Info Mart release 7.6.003

Discontinued Support

- Genesys Info Mart 7.6 does not discontinue support for any component interfaces or 7.5 functionality.

Note: Refer to the *Genesys Info Mart 7.6 Deployment Guide* for instructions on how to enable new 7.6 functionality after you complete your migration.

Content Changes in Genesys Info Mart 7.5

Note: Genesys Info Mart 7.5 is considered a major software release that contains many architectural changes and functional enhancements. Genesys *strongly* recommends that you carefully plan and practice migrating to Genesys Info Mart 7.5 in a non-production environment *before* performing the migration in your production environment.

It is important that you also test the population of new data in your non-production environment, to ensure compatibility with your current reporting application SQL queries. This is particularly important for Genesys Info Mart facts and dimensions that are populated from attached data key-value pairs extracted from Interaction Concentrator data sources.

New Functionality

Genesys Info Mart 7.5 provides the following new functionality:

- Extracts contact center configuration history details from Interaction Database 7.5, rather than from Configuration Server 7.
- Extracts voice interaction and attached data details from one or more Interaction Database(s) 7.5, rather than from Call Concentrator. This provides improved multi-site interaction data population.
- Extracts voice resource login/logout details from Interaction Database 7.5, rather than from Stat Server 7. To ensure backward compatibility, voice resource state and resource state reasons details are still extracted from Stat Server 7.
- Loads virtual queue details into the Info Mart database (extracted from Interaction Database 7.5). These details enable virtual queue reporting based on:
  - The result and duration of the distribution attempt from the perspective of the virtual queue (such as `Diverted`, `Cleared`, or `Abandoned`).
  - The result and duration of the distribution attempt from the perspective of the target resource (such as `AnsweredbyAgent`, `AnsweredbyOther`, `Redirected`, or `AbandonedWhileRinging`). These details are supported for voice interactions only.
  - The talk, hold and after-call-work (ACW) durations associated with the calls that were distributed from the virtual queue. This type of reporting is enabled for voice interactions only, and requires a reporting specialist to develop custom SQL queries.

- Loads Multimedia solution (e-mail and chat) interaction details into the Info Mart database (extracted from Interaction Database 7.5).
- Loads Multimedia resource login/logout, resource state and resource state reasons details (extracted from Interaction Database 7.5).
- Loads Multimedia interaction details, Multimedia resource state and resource state reason details, and network routing solution voice interactions into the Info Mart database (extracted from Interaction Database 7.5).
- Loads voice application details into the Info Mart database (extracted from the Genesys Voice Platform Voice Application Platform (GVP VAR) 7.5 database).
- Improves data population for multi-site interactions. Performs intra-IDB and multi-IDB merge on voice interaction data extracted from multiple ICON databases.
- Supports high availability (HA) deduplication for voice interactions, attached data, and virtual queue details from a HA IDB pair.
- Replaces Business Objects Data Integrator with a proprietary Java-based extraction, transformation, and loading (ETL) process.
- Includes the Genesys Info Mart Administration Console, a non-Java-based application that you can use to monitor ETL job status and, when necessary, start or stop ETL jobs outside of the normal schedule.
- Supports several new operating system versions and relational database management system (RDBMS) versions.

Discontinued Support

Genesys Info Mart 7.5 no longer uses, supports, or interfaces with the following components:

- Genesys License Server—Technical licenses are no longer required.
- Configuration Server database—Genesys Info Mart 7.5 extracts contact center configuration details from Interaction Database.
- Call Concentrator 7 database(s)—Genesys Info Mart 7.5 extracts voice interactions and attached data from Interaction Database.
- Business Objects Data Integrator (including the Local Repository database, Job Server, Web Administrator Server, Designer, Web Administrator, Repository Manager and Job Server Manager).
- Genesys Info Mart 7.5 replaces Business Objects Data Integrator with the Genesys Info Mart Server component.
- `JOB_ExtractCFG`—Genesys Info Mart 7.5 uses `Job_ExtractICON` to extract the contact center configuration details.
- `JOB_ExtractCCON` —Genesys Info Mart 7.5 uses `Job_ExtractICON` to extract voice interaction and attached data details.
- The `Audit` dimension—Does not support the `DATA_COLLISION_FLAG` for HA IDBs.

Note: Genesys Info Mart 7.5 does not support the Transport Layer Security (TLS) protocol feature that was introduced in the 7.5 release of other Genesys components.

Content Changes in Genesys Info Mart 7.2

Genesys Info Mart 7.2 provides the following new capabilities and options:

New Functionality

- **Intraday loading**—Genesys Info Mart 7.2 supplies separate intraday and historical tables. The ETL loads the intraday fact and aggregate tables frequently during the day. Once a day, generally overnight, the ETL moves data from the intraday fact tables to their counterpart historical fact tables, then updates the historical aggregate tables based on the newly loaded historical facts. A new ETL job, `JOB_LoadRecent`, provides intraday loading functionality.
- **Simplified job scheduling**—Genesys Info Mart Server is a new software application that launches the ETL jobs based on the schedule you configure in Configuration Sever. It also manages ETL job interdependencies. Although Genesys Info Mart Server is the application that normally launches ETL jobs, you still use Data Integrator Web Administrator to run or schedule jobs for error recovery. You can use Genesys Solution Control 7.x to start and stop Genesys Info Mart Server.
- **Pre-defined aggregates**—Genesys Info Mart 7.2 optionally populates pre-defined skill-based interaction and resource aggregates. The CCPulse+ 7.2 inbound voice reporting templates use these aggregates. Your custom reporting applications can also use these aggregates. New ETL jobs, `JOB_LoadRecent` and `JOB_AggregateGIM` provide aggregation functionality.
- **Resource state reasons**—Genesys Info Mart 7.2 optionally populates work modes and reason codes for ready, not ready and after call work DN states in its `RESOURCE_STATE_REASON_FACT` table. Both hardware and software reasons are supported. Source data is extracted from Stat Server 7.2's `VOICE_REASONS` database table.
- **Outbound Contact data**—Genesys Info Mart 7.2 optionally populates campaign configuration, campaign session, calling list metrics, and outbound contact attempt information in new fact and dimension tables. Source data is extracted from Configuration Server and Interaction Concentrator 7.2's Outbound Contact extension tables. A new ETL job, `JOB_ExtractICON`, provides the extraction functionality.
- **Active login sessions**—Genesys Info Mart 7.2 populates both active and completed login sessions in its `RESOURCE_SESSION_FACT` table. Previous versions of the product populated only completed login sessions.

- **Virtual agent group membership**—Genesys Info Mart 7.2 populates skill expression-based virtual agent group membership in its `RESOURCE_GROUP_FACT` table. Source data is extracted from Configuration Server 7.2's database.
- **Business Objects Data Integrator 11**—Genesys Info Mart 7.2 uses Data Integrator version 11. This version of Data Integrator, which ships with Genesys Info Mart 7.2, supports new operating systems and RDBMS versions.
- **Info Mart database enhancements**—In addition to the enhancements listed above, Genesys Info Mart 7.2 supplies other additions and enhancements to the Info Mart database.

Content Changes in Genesys Info Mart 7.0.2

Genesys Info Mart 7.0.2 provides the following new capabilities and options:

New Functionality

- **Improved performance**—Dramatically improved performance (allowing up to 1,000,000 interactions per day to be loaded into the Info Mart database). To accomplish this, the Genesys Info Mart ETL jobs have been restructured to allow multiple data extractions and multiple data transformations per day. Data is loaded into the Info Mart database once a day, generally at the end of the day.
- **Support for mixed-database environments**—The DBMS type of the Configuration Server database can be Microsoft SQL Server regardless of whether the source and target databases are Microsoft SQL Server, DB2, or Oracle.
- **Improved data management and auditing**—Facilitates Info Mart's maintenance by database administrators and support by Genesys:
  - The new Audit dimension in the Info Mart database indicates what type of source system provided the data—Configuration Server, Call Concentrator, Stat Server, or Info Mart itself— and the specific instance of that source system.
  - Within the Info Mart database, the fact and dimension tables contain new timestamps to facilitate the identification of new and changed data.
  - Within the Info Mart database, the fact extension tables contain new fields that facilitate partitioning by date.
  - New Staging Area database views provide a history about each completed ETL process.

  - Enhanced Info Mart purging rules, to provide database administrators with greater control and flexibility over the time and method used to delete old table data. Specifically, Genesys Info Mart can be configured to "flag" rows that are eligible for purging, rather than delete them.
- **Reorganized configuration options within Configuration Manager**— Permits tenants in a multi-tenant deployment to modify their own configuration.
- **Business Objects Data Integrator 6.5.1**— Improves ETL performance and reliability.

Configuration Option Changes in Genesys Info Mart 7.6

Table 169 lists the changes in the Genesys Info Mart configuration options between releases 7.5.x and 7.6.x. For your convenience, the configuration sections are listed in alphabetical order, as are the options for each section. For more detailed descriptions of these options, see the section about configuring Genesys Info Mart in the *Genesys Info Mart 7.6 Deployment Guide.*

Table 169: Configuration Option Changes from 7.5.x to 7.6.x

Section	Option Name	Change Type	Changed in Release	Details
custom-data	extract-user-event-data	Option added.	7.6.004	
custom-data	user-event-data	Option added.	7.6.004	This option can be configured only in the `Application` object for the Database Access Point (DAP) through which voice interaction data is extracted (the role is set to `ICON_CORE`).
custom-data	user-event-data-timeout	Option added.	7.6.004	
gim-aggregates-tenant	days-to-keep-day-level-disposition-aggregates	Option added.	7.6	

Table 169: Configuration Option Changes from 7.5.x to 7.6.x (Continued)

Section	Option Name	Change Type	Changed in Release	Details
gim-aggregates-tenant	days-to-keep-day-level-interval-aggregates	Option added.	7.6	
gim-aggregates-tenant	days-to-keep-hour-level-disposition-aggregates	Option added.	7.6	
gim-aggregates-tenant	days-to-keep-hour-level-interval-aggregates	Option added.	7.6	
gim-aggregates-tenant	days-to-keep-month-level-disposition-aggregates	Option added.	7.6	
gim-aggregates-tenant	days-to-keep-subhour-level-interval-aggregates	Option added.	7.6	
gim-aggregates-tenant	interval-aggregates-fact-time-window	Option added.	7.6.007	
gim-aggregates-tenant	max-late-arriving-fact-time-limit	Option added.	7.6.006	
gim-aggregates-tenant	populate-agent-state-interval-aggregates	Option added.	7.6	
gim-aggregates-tenant	populate-ixn-agent-aggregates	Option added.	7.6	
gim-aggregates-tenant	populate-ixn-agent-interval-aggregates	Option added.	7.6	
gim-aggregates-tenant	populate-ixn-agent-out-aggregates	Option added.	7.6.012	
gim-aggregates-tenant	populate-ixn-service-type-aggregates	Option added.	7.6	

Table 169: Configuration Option Changes from 7.5.x to 7.6.x (Continued)

Section	Option Name	Change Type	Changed in Release	Details
gim-aggregates-tenant	populate-queue-aggregates	Option added.	7.6	
gim-aggregates-tenant	short-talk-threshold	Option added.	7.6.005	
gim-agg-voice-abandon-tenant		Section added.	7.6	
gim-agg-voice-abandon-tenant	abandon-duration-range-01-thold through abandon-duration-range-19-thold	Options added.	7.6	
gim-agg-voice-init-resp-tenant		Section added.	7.6	
gim-agg-voice-init-resp-tenant	init-resp-duration-range-01-thold through init-resp-duration-range-19-thold	Options added.	7.6	
gim-etl	aggregate-time-range-limit	Option added.	7.6	
gim-etl	aggregate-time-range-units	Value added.	7.6.007	`HOURS` is added to the list of valid values.
gim-etl	aggregate-time-range-units	Option added.	7.6	
gim-etl	data-migration-time-range-limit	Option added.	7.6	
gim-etl	data-migration-time-range-units	Option added.	7.6	
gim-etl	days-to-keep-stg-ha-login-sessions	Option added.	7.6.009	
gim-etl	days-to-keep-stg-history	Option added.	7.6.007	
gim-etl	days-to-keep-stg-icon-call-info	Option added.	7.6.003	

Table 169: Configuration Option Changes from 7.5.x to 7.6.x (Continued)

Section	Option Name	Change Type	Changed in Release	Details
gim-etl	default-ivr-to-self-service	Option added.	7.6	
gim-etl	extract-ha-voice-agent-activity	Option added.	7.6	
gim-etl	extract-partially-merged-interactions	Option added.	7.6.008	
gim-etl	factor-dnd-into-sm-resource-states	Option added.	7.6	This option can be configured only in the `Switch` object.
gim-etl	ha-agent-all-connections-required	Option added.	7.6	
gim-etl	ha-cfg-all-connections-required	Option added.	7.6	
gim-etl	ha-ir-extract-comparison-timeout	Option added.	7.6	
gim-etl	ir-merge-interval	Value added.	7.6.003	`-1` is added to the list of valid values.
gim-etl	load-transaction-size	Option added.	7.6	
gim-etl	maintain-time-range-limit	Option added.	7.6	
gim-etl	maintain-time-range-units	Option added.	7.6	
gim-etl	populate-detailed-ixn-subtype	Option added.	7.6	
gim-etl	populate-dt-chat-resource-activity	Option added.	7.6	
gim-etl	populate-dt-email-resource-activity	Option added.	7.6	

Table 169: Configuration Option Changes from 7.5.x to 7.6.x (Continued)

Section	Option Name	Change Type	Changed in Release	Details
gim-etl	populate-dt-open-media-resource-activity	Option added.	7.6	
gim-etl	populate-dt-voice-resource-activity	Option added.	7.6	
gim-etl	populate-open-media-ixns	Option added.	7.6	
gim-etl	populate-open-media-resource-activity	Option added.	7.6	
gim-etl	populate-sm-chat-resource-activity	Option added.	7.6	
gim-etl	populate-sm-email-resource-activity	Option added.	7.6	
gim-etl	populate-sm-open-media-resource-activity	Option added.	7.6	
gim-etl	populate-sm-voice-resource-activity	Option added.	7.6	
gim-etl	populate-voice-init-consult-in-irf	Option added.	7.6.006	
gim-etl	populate-voice-ixn-seg-facts	Option added.	7.6.006	
gim-etl	populate-voice-resource-states-for-queues	Option added.	7.6	
gim-etl	q-answer-threshold-mm	Option added.	7.6	This option can also be configured in the DN objects for virtual queues.
gim-etl	sm-resource-state-priority	Option added.	7.6	
gim-etl	sub-hour-level-aggregation	Option added.	7.6	

Table 169: Configuration Option Changes from 7.5.x to 7.6.x (Continued)

Section	Option Name	Change Type	Changed in Release	Details
gim-etl-tenant	days-to-keep-dt-resource-activity-facts	Option added.	7.6	This option can also be configured in tenant objects.
gim-etl-tenant	days-to-keep-dt-resource-activity-facts	Valid values changed.	7.6.006	The minimum valid value is changed from `30` to `3`.
gim-etl-tenant	days-to-keep-gim-facts	Valid values changed.	7.6.006	The minimum valid value is changed from `30` to `3`.
gim-transformation	complex-voice-agent-env	Option added.	7.6.004	
gim-transformation	ignore-missing-config-objs	Option added.	7.6.006	
gim-transformation	transformation-buffer-size	Valid values changed.	7.6.006	The maximum valid value is changed from `5` to `50`.
gim-tuning		Section added.	7.6.006	
gim-tuning	aggregate-tenants-in-parallel	Option added.	7.6.006	
gim-tuning	extract-agent-activity-data-in-parallel	Option added.	7.6.006	
gim-tuning	extract-ha-deduplicate-in-parallel	Option added.	7.6.006	
gim-tuning	extract-merging-in-parallel	Option added.	7.6.006	
gim-tuning	load-historical-tables-in-parallel	Option added.	7.6.006	
gim-tuning	load-intraday-tables-in-parallel	Option added.	7.6.006	
gim-tuning	lookup-caching-factor	Option added.	7.6.006	
gim-tuning	maintain-tables-in-parallel	Option added.	7.6.006	

Table 169: Configuration Option Changes from 7.5.x to 7.6.x (Continued)

Section	Option Name	Change Type	Changed in Release	Details
gim-tuning	maintain-tenants-in-parallel	Option added.	7.6.006	
gim-tuning	max-tenants-in-parallel	Option added.	7.6.006	
gim-tuning	oracle-stats-degree-of-parallelism	Option added.	7.6.006	
gim-tuning	oracle-stats-estimate-percent	Option added.	7.6.009	
gim-tuning	run-gim-config-before-starting-job	Option added.	7.6.006	
gim-tuning	run-historical-fact-table-stats	Option added.	7.6.009	
gim-tuning	run-intraday-fact-table-stats	Option added.	7.6.009	
gim-tuning	update-historical-gvp-facts-intraday	Option added.	7.6.010	
optional-tables	populate-acd-queue-facts	Option added.	7.6	
optional-tables	populate-dt-dnd-facts	Option added.	7.6	
optional-tables	populate-dt-resource-state-facts	Option added.	7.6	
optional-tables	populate-dt-resource-state-reason-facts	Option added.	7.6	
optional-tables	populate-interaction-resource-facts	Option added.	7.6	
optional-tables	populate-interaction-resource-state-facts	Option added.	7.6	

Table 169: Configuration Option Changes from 7.5.x to 7.6.x (Continued)

Section	Option Name	Change Type	Changed in Release	Details
optional-tables	populate-sm-resource-session-facts	Option added.	7.6	
optional-tables	populate-sm-resource-state-facts	Option added.	7.6	
optional-tables	populate-sm-resource-state-reason-facts	Option added.	7.6	
schedule	intraday-aggregates-frequency	Option added.	7.6.005	
schedule	job-retry-count	Option added.	7.6.008	
schedule	job-retry-wait	Option added.	7.6.008	
schedule	migration-duration-in-hours	Option added.	7.6	
schedule	migration-start-time	Option added.	7.6	
schedule	run-migration	Option added.	7.6	

Configuration Option Changes in Genesys Info Mart 7.5

Table 170 lists the changes in the Genesys Info Mart configuration options between releases 7.2.x and 7.5.x. For more detailed descriptions of these options, see the section about configuring Genesys Info Mart in the *Genesys Info Mart 7.5 Deployment Guide.*

Table 170: Configuration Option Changes from 7.2.x to 7.5.x

Section	Option Name	Change Type	Changed in Release	Details
ccon-data-sources		Section removed.	7.5	This section is not used in Genesys Info Mart 7.5. In release 7.5, Genesys Info Mart uses Database Access Points (DAPs) to configure connections to Interaction Concentrator databases.
ccon-ha-pairs		Section removed.	7.5	This section is not used in Genesys Info Mart 7.5. In release 7.5, Genesys Info Mart uses Database Access Point options to configure ICON HA database pairs.
data-integrator-web-admin		Section removed.	7.5	This section is not used in Genesys Info Mart 7.5.
gim-etl	ccon-dup-scdr	Option removed.	7.5	This option is no longer used.
gim-etl	days-to-keep-stg-dup-scdrs	Option removed.	7.5	This option is no longer used.
gim-etl	max-scdr-count	Option removed.	7.5	This option is no longer used.
gim-etl	use-oracle-bulk-load	Option removed.	7.5	This option is no longer used. Genesys Info Mart 7.5 no longer uses bulk loading.
gim-etl	zero-end-time-is-active-status	Option removed.	7.5	This option is no longer used. Genesys Info Mart 7.5 requires Stat Server's `status-table-update-end-time-at-end-only` option to be set to `True`.
gim-etl	max-session-duration-in-hours	Option changed.	7.5	The default value of this option is now `24` (hours). Active resource sessions are always populated; a value of `0` is treated the same as the default (`24`).

Table 170: Configuration Option Changes from 7.2.x to 7.5.x (Continued)

Section	Option Name	Change Type	Changed in Release	Details
gim-etl	days-to-keep-stg-ha-ir-ids	Option added.	7.5	This option specifies the number of days that the ETL retains IR IDs that it has extracted from one (only) of the Interaction Databases (IDBs) that constitute an HA pair.
gim-etl	extract-data-after-date	Option added.	7.5	This option specifies the starting data for extracted data.
gim-etl	extract-date-time-range-limit	Option added.	7.5	This option specifies the approximate time range of data that will be extracted in a single ETL cycle.
gim-etl	extract-date-time-range-units	Option added.	7.5	This option specifies the units used for the `extract-date-time-range-limit` option.
gim-etl	ir-merge-interval	Option added.	7.5	This option specifies the time interval, in minutes, at which the Genesys Info Mart Server will periodically run the IR Merge stored procedure on all configured DAPs with the role of `ICON_CORE`.
gim-etl	limit-extract-data	Option added.	7.5	This option specifies the amount of data that Genesys Info Mart extracts and processes.
gim-etl	max-wrap-delay	Option added.	7.5	This option specifies the number in seconds within which the agent must enter after-call-work (ACW) after the call ends.

Table 170: Configuration Option Changes from 7.2.x to 7.5.x (Continued)

Section	Option Name	Change Type	Changed in Release	Details
gim-etl	memory-threshold	Option added.	7.5	This option specifies the percentage of available memory that must be exceeded before Genesys Info Mart logs a message indicating that the memory threshold has been exceeded.
gim-etl	populate-chat-ixns	Option added.	7.5	This option enables or disables Genesys Info Mart output of Multimedia chat interactions.
gim-etl	populate-chat-resource-activity	Option added.	7.5	This option enables or disables Genesys Info Mart output of Multimedia chat resource activity facts.
gim-etl	populate-email-ixns	Option added.	7.5	This option enables or disables Genesys Info Mart output of Multimedia e-mail interactions.
gim-etl	populate-email-resource-activity	Option added.	7.5	This option enables or disables Genesys Info Mart output of Multimedia e-mail resource activity facts.
gim-etl	q-answer-threshold-voice	Option added.	7.5	This option specifies the global default duration, in seconds, used as a target time to answer for voice interactions that entered virtual queues.
gim-etl	q-short-abandoned-threshold-voice	Option added.	7.5	This option specifies the global duration, in seconds, used to indicate that a voice interaction that was abandoned while in a virtual queue should be considered a “short” abandon.
gim-transformation	show-conference-detail	Option added.	7.5	This option controls how Genesys Info Mart populates the `TECHNICAL_DESCRIPTOR` dimension for voice interactions.

Table 170: Configuration Option Changes from 7.2.x to 7.5.x (Continued)

Section	Option Name	Change Type	Changed in Release	Details
gim-transformation	transformation-buffer-size	Option added.	7.5	This option specifies the relative size of the buffer used to hold extracted data during the transformation process.
ixn-user-data-facts	user-data-16	Option added.	7.5	This option specifies how `User Data 16` is populated based on the specified value of the corresponding facts in the interaction segments.
ixn-user-data-facts	user-data-17	Option added.	7.5	This option specifies how `User Data 17` is populated based on the specified value of the corresponding facts in the interaction segments.
ixn-user-data-facts	user-data-18	Option added.	7.5	This option specifies how `User Data 18` is populated based on the specified value of the corresponding facts in the interaction segments.
ixn-user-data-facts	user-data-19	Option added.	7.5	This option specifies how `User Data 19` is populated based on the specified value of the corresponding facts in the interaction segments.
ixn-user-data-facts	user-data-20	Option added.	7.5	This option specifies how `User Data 20` is populated based on the specified value of the corresponding facts in the interaction segments.
license		Section removed.	7.5	This section is not used in Genesys Info Mart 7.5.
optional-tables	populate-gvp-var-facts	Option added.	7.5	This option enables or disables Genesys Info Mart output to the GVP VAR fact and dimension tables.
optional-tables	populate-virtual-queue-facts	Option added.	7.5	This option enables or disables Genesys Info Mart output to the `VQ_SEGMENT_FACT` table.

Table 170: Configuration Option Changes from 7.2.x to 7.5.x (Continued)

Section	Option Name	Change Type	Changed in Release	Details
stat-server-data-sources		Section removed.	7.5	This section is not used in Genesys Info Mart 7.5. In release 7.5, Genesys Info Mart uses Database Access Points (DAPs) to configure connections to Stat Server databases.
gim-etl	network-switch	Option added to `Switch` object.	7.5	This option identifies the `Switch` object as a network switch. The transformation process uses this option to determine which resources in the voice interaction are network resources.

Configuration Option Changes in Genesys Info Mart 7.2

Table 171 lists the changes to the Genesys Info Mart configuration options between releases 7.0.2 and 7.2. For more detailed descriptions of these options, see section about customizing your configuration in the *Genesys Info Mart 7.2 Deployment Guide*.

Table 171: Configuration Option Changes from 7.0.2 to 7.2

Section	Option name	Change Type	Changed in Release	Details
ccon-data-sources	<data-source>	Option dependency added.	7.2	The option name you choose for each Call Concentrator data source must match the system configuration you specify when you run `JOB_ExtractCCON`.
stat-server-data-sources	<data-source>	Option dependency added.	7.2	The option name you choose for each Stat Server data source must match the system configuration you specify when you run `JOB_ExtractSS`.

Table 171: Configuration Option Changes from 7.0.2 to 7.2 (Continued)

Section	Option name	Change Type	Changed in Release	Details
data-integrator-web-admin		Section added.	7.2	New section for specifying the options that Genesys Info Mart Server uses to communicate with Data Integrator's Web Administrator Server.
data-integrator-web-admin	host-name	Option added.	7.2	
data-integrator-web-admin	job-server-name	Option added.	7.2	
data-integrator-web-admin	port	Option added.	7.2	
data-integrator-web-admin	system-config	Option added.	7.2	
gim-aggregates-tenant		Section added.	7.2	New section to specify default tenant aggregation options.
gim-aggregates-tenant	populate-agent-state-aggregates	Option added.	7.2	
gim-aggregates-tenant	populate-skill-demand-aggregates	Option added.	7.2	
gim-aggregates-tenant	populate-skill-combination-aggregates	Option added.	7.2	
gim-aggregates-tenant	maximum-aggregation-level	Option added.	7.2	
gim-aggregates-tenant	init-resp-duration-range-1-thold	Option added.	7.2	
gim-agg-skill-inb-ixn-tenant		Section added.	7.2	

Table 171: Configuration Option Changes from 7.0.2 to 7.2 (Continued)

Section	Option name	Change Type	Changed in Release	Details
gim-agg-skill-inb-ixn-tenant	init-resp-duration-range-2-thold	Option added.	7.2	
gim-agg-skill-inb-ixn-tenant	init-resp-duration-range-3-thold	Option added.	7.2	
gim-agg-skill-abandon-tenant		Section added.	7.2	
gim-agg-skill-abandon-tenant	abandon-duration-range-1-thold	Option added.	7.2	
gim-agg-skill-abandon-tenant	abandon-duration-range-2-thold	Option added.	7.2	
gim-agg-skill-abandon-tenant	abandon-duration-range-3-thold	Option added.	7.2	
gim-etl	max-session-duration-in-hours	Option added.	7.2	
gim-etl	max-camp-group-session-duration-in-hours	Option added.	7.2	
gim-etl	max-camp-group-state-duration-in-hours	Option added.	7.2	
gim-etl	populate-ocs-ixns	Option added.	7.2	
gim-etl	zero-end-time-is-active-status	Option added.	7.2	
gim-transformation	Section	added.	7.2	New section for customizing ETL data population.

Table 171: Configuration Option Changes from 7.0.2 to 7.2 (Continued)

Section	Option name	Change Type	Changed in Release	Details
gim-transformation	show-abandoned-detail	Option added.	7.2	
gim-transformation	voice-init-resp-duration	Option added.	7.2	
log	verbose Option	value added.	7.2	
optional-tables	populate-resource-state-reason-facts	Option added.	7.2	
schedule		Section added.	7.2	New section to specify ETL job schedule.
schedule	run-scheduler O	ption added.	7.2	
schedule	etl-start-time O	ption added.	7.2	
schedule	etl-frequency Option	added.	7.2	
schedule	etl-end-time O	ption added.	7.2	
schedule	load-recent-with-extract-and-transform	Option added.	7.2	
schedule	populate-intraday-aggregates	Option added.	7.2	
schedule	run-maintain O	ption added.	7.2	
schedule	run-aggregates O	ption added.	7.2	
schedule	load-recent-start-time	Option added.	7.2	

Table 171: Configuration Option Changes from 7.0.2 to 7.2 (Continued)

Section	Option name	Change Type	Changed in Release	Details
schedule	load-start-time O	ption added.	7.2	
schedule	aggregate-start-time	Option added.	7.2	
schedule	maintain-start-time	Option added.	7.2	
schedule	max-concurrent-extract-jobs	Option added.	7.2	
gim-etl-mapping		Section added to `Field` object.	7.2	New section to specify `Field` object to Genesys Info Mart mapping.
gim-etl-mapping	table-name Option	added to `Field` object.	7.2	See the section about configuring the mapping of the OCS record fields in the *Genesys Info Mart Deployment Guide*.
gim-etl-mapping	column-name O	ption added to `Field` object.	7.2	See the section about configuring the mapping of the OCS record fields in the *Genesys Info Mart Deployment Guide*.
default	right_person Op	tion added to `Field` object.	7.2	See the section about configuring the mapping of the OCS record fields in the *Genesys Info Mart Deployment Guide*.
default	conversion Op	tion added to `Field` object.	7.2	See the section about configuring the mapping of the OCS record fields in the *Genesys Info Mart Deployment Guide*.
gim-etl-mapping	table-name Option	added to `Field` object.	7.2	See the section about configuring the mapping of the Outbound Contact record fields in the *Genesys Info Mart Deployment Guide*.

Table 171: Configuration Option Changes from 7.0.2 to 7.2 (Continued)

Section	Option name	Change Type	Changed in Release	Details
gim-etl-mapping	column-name O	ption added to `Field` object.	7.2	See the section about configuring the mapping of the Outbound Contact record fields in the *Genesys Info Mart Deployment Guide*.
default	right_person Op	tion added to `Field` object.	7.2	See the section about configuring the mapping of the Outbound Contact record fields in the *Genesys Info Mart Deployment Guide*.
default	conversion Op	tion added to `Field` object.	7.2	See the section about configuring the mapping of the Outbound Contact record fields in the *Genesys Info Mart Deployment Guide*.

Configuration Option Changes in Genesys Info Mart 7.0.2

Table 172 lists the changes to the Genesys Info Mart configuration options between releases 7.0.1 and 7.0.2. For more detailed descriptions of these options, see the section about customizing your configuration in the *Genesys Info Mart 7.0.2 Deployment Guide*.

Table 172: Configuration Option Changes from 7.0.1 and 7.0.2

Section	Option name	Change Type	Changed in Release	Details
days-to-keep-gim-facts		Section removed.	7.0.2 Op	tions moved to `gim-etl-tenant` section
gim-etl	data-source-lag	Option added.	7.0.2	
gim-etl	end-of-reporting-day	Option removed.	7.0.2	Option no longer used
gim-etl	max-scdr-count Op	tion added.	7.0.2	

Table 172: Configuration Option Changes from 7.0.1 and 7.0.2 (Continued)

Section	Option name	Change Type	Changed in Release	Details
gim-etl	std-enterprise-time-zone	Option added.	7.0.2	Option moved from `standard-time-zones` section.
gim-etl	purge-action-is-delete	Option added.	7.0.2	
gim-etl-tenant Section		added.	7.0.2	New section for tenant default values.
gim-etl-tenant da	ys-to-keep-gim-facts	Option added.	7.0.2	Option moved from `days-to-keep-gimfacts` section.
gim-etl-tenant std	-tenant-time-zone	Option added.	7.0.2	Option moved from `standard-time-zones` section.
standard-time-zone Sec		tion removed.	7.0.2 Op	tions moved to `gim-etl` and `gim-etl-tenant` sections.
tenant-fiscal-periods tenant		Option removed.	7.0.2	Section now used for tenant default values.

Schema Changes in the Info Mart Database 7.6

Table 173 lists the changes to the Info Mart database schema from Genesys Info Mart 7.5 to Genesys Info Mart 7.6. For ease of reference, the tables and views are listed in alphabetical order. For a detailed description of the Info Mart database schema, see the *Genesys Info Mart 7.6 Reference Manual* for your RDBMS (DB2, Microsoft SQL Server, or Oracle).

Table 173: Schema Changes in Release 7.6

Table/View	Column	Change Type	Changed in Release
AG2_INB_V_AGENT_QUEUE_*[a]		Tables added.	7.6
AG2_INB_V_AGENT_QUEUE_*[a]	INTERACTION_ DESCRIPTOR_KEY	Column added.	7.6.005
AG2_INB_V_AGENT_QUEUE_*[b]		Views added.	7.6
AG2_INB_V_AGENT_QUEUE_*[b]	INTERACTION_ DESCRIPTOR_KEY	Column added.	7.6.005
AG2_INB_V_I_IXN_AGENT_*[c]		Tables added.	7.6
AG2_INB_V_I_IXN_AGENT_*[c]	TOTAL_ANSWERED_COUNT	Column added.	7.6.005
AG2_INB_V_I_SESS_STATE_*[c]		Tables added.	7.6
AG2_INB_V_I_STATE_RSN_*[c]		Tables added.	7.6
AG2_INB_V_IXN_AGENT_*[a]		Tables added.	7.6
AG2_INB_V_IXN_AGENT_*[a]	TOTAL_SHORT_TALK_COUNT TOTAL_RONA_COUNT TOTAL_ABANDONED_ RINGING_COUNT	Columns added.	7.6.005
AG2_INB_V_IXN_AGENT_*[b]		Views added.	7.6
AG2_INB_V_IXN_AGENT_*[b]	TOTAL_SHORT_TALK_COUNT TOTAL_RONA_COUNT TOTAL_ABANDONED_ RINGING_COUNT	Columns added.	7.6.005
AG2_INB_V_IXN_AGENT_GRP_*[a]		Tables added.	7.6
AG2_INB_V_IXN_AGENT_GRP_*[a]	TOTAL_SHORT_TALK_COUNT TOTAL_RONA_COUNT TOTAL_ABANDONED_ RINGING_COUNT	Columns added.	7.6.005
AG2_INB_V_IXN_AGENT_GRP_*[b]		Views added.	7.6

a. Wildcard (*) represents separate tables for DAY, HOUR, MONTH, respectively.

b. Wildcard (*) represents separate views for QRTR, SUBHR, WEEK, YEAR, respectively.

c. Wildcard (*) represents separate tables for DAY, HOUR, SUBHR, respectively.

Table 173: Schema Changes in Release 7.6 (Continued)

Table/View	Column	Change Type	Changed in Release
AG2_INB_V_IXN_AGENT_GRP_*[b]	TOTAL_SHORT_TALK_COUNT TOTAL_RONA_COUNT TOTAL_ABANDONED_RINGING_COUNT	Columns added.	7.6.005
AG2_INB_V_IXN_ID_*[a]		Tables added.	7.6
AG2_INB_V_IXN_ID_*[a]	TOTAL_ENTERED_OBJ_COUNT	Column added.	7.6.005
AG2_INB_V_IXN_ID_*[b]		Views added.	7.6
AG2_INB_V_IXN_ID_*[b]	TOTAL_ENTERED_OBJ_COUNT	Column added.	7.6.005
AG2_INB_V_QUEUE_ABN_*[a]		Tables added.	7.6
AG2_INB_V_QUEUE_ABN_*[b]		Views added.	7.6
AG2_INB_V_QUEUE_ANS_*[a]		Tables added.	7.6
AG2_INB_V_QUEUE_ANS_*[b]		Views added.	7.6
AG2_INB_V_QUEUE_*[a]		Tables added.	7.6
AG2_INB_V_QUEUE_*[a]	TOTAL_TIME_TO_DISTRIB_DURATION MAX_TIME_TO_DISTRIB_DURATION TOTAL_TIME_TO_DIVERT_DURATION MAX_TIME_TO_DIVERT_DURATION	Columns added.	7.6.009
AG2_INB_V_QUEUE_*[b]		Views added.	7.6

a. Wildcard (*) represents separate tables for DAY, HOUR, MONTH, respectively.

b. Wildcard (*) represents separate views for QRTR, SUBHR, WEEK, YEAR, respectively.

c. Wildcard (*) represents separate tables for DAY, HOUR, SUBHR, respectively.

Table 173: Schema Changes in Release 7.6 (Continued)

Table/View	Column	Change Type	Changed in Release
AG2_INB_V_QUEUE_*[b]	TOTAL_TIME_TO_DISTRIB_DURATION MAX_TIME_TO_DISTRIB_DURATION TOTAL_TIME_TO_DIVERT_DURATION MAX_TIME_TO_DIVERT_DURATION	Columns added.	7.6.009
AG2_INB_V_QUEUE_GRP_*[a]		Tables added.	7.6
AG2_INB_V_QUEUE_GRP_*[a]	TOTAL_TIME_TO_DISTRIB_DURATION MAX_TIME_TO_DISTRIB_DURATION TOTAL_TIME_TO_DIVERT_DURATION MAX_TIME_TO_DIVERT_DURATION	Columns added.	7.6.009
AG2_INB_V_QUEUE_GRP_*[b]		Views added.	7.6
AG2_INB_V_QUEUE_GRP_*[b]	TOTAL_TIME_TO_DISTRIB_DURATION MAX_TIME_TO_DISTRIB_DURATION TOTAL_TIME_TO_DIVERT_DURATION MAX_TIME_TO_DIVERT_DURATION	Columns added.	7.6.009
AG2_OUT_V_IXN_AGENT_*[a]		Tables added.	7.6.012
AG2_OUT_V_IXN_AGENT_*[b]		Views added.	7.6.012
AG2_OUT_V_IXN_AGENT_GRP_*[a]		Tables added.	7.6.012
AG2_OUT_V_IXN_AGENT_GRP_*[b]		Views added.	7.6.012
AGGREGATE_CTRL_*[a]	BEGIN_STD_TENANT_DATE_TIME_KEY	Column added.	7.6

a. Wildcard (*) represents separate tables for DAY, HOUR, MONTH, respectively.

b. Wildcard (*) represents separate views for QRTR, SUBHR, WEEK, YEAR, respectively.

c. Wildcard (*) represents separate tables for DAY, HOUR, SUBHR, respectively.

Table 173: Schema Changes in Release 7.6 (Continued)

Table/View	Column	Change Type	Changed in Release
AGGREGATE_CTRL_*[a]	END_STD_TENANT_DATE_TIME_KEY	Column added.	7.6
AGGREGATE_CTRL_SUBHOUR		Table added.	7.6
AIV_INTERACTION_SEGMENT_FACT		View deleted.	7.6
AIV_RESOURCE_GROUP_FACT		View deleted.	7.6
AIV_RESOURCE_STATE_REASON_FACT		View deleted.	7.6
AIV_VOICE_IXN_FACT_EXT		View deleted.	7.6
AIV_VOICE_SEG_FACT_EXT		View deleted.	7.6
AIV_INTERACTION_FACT		View deleted.	7.6
CHAT_IXN_FACT_EXT		Changed from Table to View for backward compatibility.	7.6
CHAT_SEG_FACT_EXT		Changed from Table to View for backward compatibility.	7.6
DATA_MIGRATION		Table added.	7.6
DATE_TIME		Table added.	7.6
DT_DND_FACT		Table added.	7.6
DT_RES_STATE_FACT		Table added.	7.6
DT_RES_STATE_REASON_FACT		Table added.	7.6
EMAIL_IXN_FACT_EXT		Changed from Table to View for backward compatibility.	7.6
EMAIL_SEG_FACT_EXT		Changed from Table to View for backward compatibility.	7.6

a. Wildcard (*) represents separate tables for DAY, HOUR, MONTH, respectively.

b. Wildcard (*) represents separate views for QRTR, SUBHR, WEEK, YEAR, respectively.

c. Wildcard (*) represents separate tables for DAY, HOUR, SUBHR, respectively.

Table 173: Schema Changes in Release 7.6 (Continued)

Table/View	Column	Change Type	Changed in Release
GVP_CALL_FACT	MEDIA_SERVER_IXN_ID	Data type changed from Number(19) to Number(20)	7.6
INTERACTION_FACT	MEDIA_SERVER_IXN_ID	Data type changed from Number(19) to Number(20)	7.6
INTERACTION_FACT	MEDIA_SERVER_ROOT_IXN_ID	Data type changed from Number(19) to Number(20)	7.6
INTERACTION_RESOURCE_FACT		Table added.	7.6
INTERACTION_RESOURCE_STATE		Table added.	7.6
INTERACTION_SEGMENT_FACT	MEDIA_SERVER_IXN_ID	Data type changed from Number(19) to Number(20)	7.6
IXN_RESOURCE_STATE_FACT		Table added.	7.6
MEDIATION_SEGMENT_FACT		Table added.	7.6
MMEDIA_IXN_FACT_EXT		Table added.	7.6
MMEDIA_SEG_FACT_EXT		Table added.	7.6
R_CHAT_IXN_FACT_EXT		Changed from Table to View for backward compatibility.	7.6
R_CHAT_SEG_FACT_EXT		Changed from Table to View for backward compatibility.	7.6
R_DT_DND_FACT		Table added.	7.6
R_DT_RES_STATE_FACT		Table added.	7.6
R_DT_RES_STATE_REASON_FACT		Table added.	7.6
a. Wildcard (*) represents separate tables for DAY, HOUR, MONTH, respectively. b. Wildcard (*) represents separate views for QRTR, SUBHR, WEEK, YEAR, respectively. c. Wildcard (*) represents separate tables for DAY, HOUR, SUBHR, respectively.			

Table 173: Schema Changes in Release 7.6 (Continued)

Table/View	Column	Change Type	Changed in Release
R_EMAIL_IXN_FACT_EXT		Changed from Table to View for backward compatibility.	7.6
R_EMAIL_SEG_FACT_EXT		Changed from Table to View for backward compatibility.	7.6
R_GVP_CALL_FACT	MEDIA_SERVER_IXN_ID	Data type changed from Number(19) to Number(20)	7.6
R_INTERACTION_FACT	MEDIA_SERVER_IXN_ID	Data type changed from Number(19) to Number(20)	7.6
R_INTERACTION_FACT	MEDIA_SERVER_ROOT_IXN_ID	Data type changed from Number(19) to Number(20)	7.6
R_INTERACTION_RESOURCE_FACT		Table added.	7.6
R_INTERACTION_SEGMENT_FACT	MEDIA_SERVER_IXN_ID	Data type changed from Number(19) to Number(20)	7.6
R_IXN_RESOURCE_STATE_FACT		Table added.	7.6
R_MEDIATION_SEGMENT_FACT		Table added.	7.6
R_MMEDIA_IXN_FACT_EXT		Table added.	7.6
R_MMEDIA_SEG_FACT_EXT		Table added.	7.6
R_SM_RES_SESSION_FACT		Table added.	7.6
R_SM_RES_STATE_FACT		Table added.	7.6
R_SM_RES_STATE_REASON_FACT		Table added.	7.6
R_VOICE_RES_FACT_EXT		Table added.	7.6
a. Wildcard (*) represents separate tables for DAY, HOUR, MONTH, respectively. b. Wildcard (*) represents separate views for QRTR, SUBHR, WEEK, YEAR, respectively. c. Wildcard (*) represents separate tables for DAY, HOUR, SUBHR, respectively.			

Table 173: Schema Changes in Release 7.6 (Continued)

Table/View	Column	Change Type	Changed in Release
R_VQ_SEGMENT_FACT		Changed from Table to View for backward compatibility.	7.6
RESOURCE_	RESOURCE_ALIAS	Column added.	7.6
RESOURCE_GROUP_COMBINATION		Table added.	7.6
SM_RES_SESSION_FACT		Table added.	7.6
SM_RES_STATE_FACT		Table added.	7.6
SM_RES_STATE_REASON_FACT		Table added.	7.6
STOP_ACTION		Table added.	7.6
TIME_RANGE	BOUND_5 through BOUND_19	Columns added.	7.6
TIME_RANGE	TIME_RANGE_TYPE	Column added.	7.6
TIME_RANGE	TIME_RANGE_TYPE_CODE	Column added.	7.6
VOICE_RES_FACT_EXT		Table added.	7.6
VQ_SEGMENT_FACT		Changed from Table to View for backward compatibility.	7.6

a. Wildcard (*) represents separate tables for DAY, HOUR, MONTH, respectively.

b. Wildcard (*) represents separate views for QRTR, SUBHR, WEEK, YEAR, respectively.

c. Wildcard (*) represents separate tables for DAY, HOUR, SUBHR, respectively.

Schema Changes in the Info Mart Database 7.5

Table 174 lists the changes to the Info Mart database schema from Genesys Info Mart 7.2 to Genesys Info Mart 7.5. For a detailed description of the Info Mart database schema, see the *Genesys Info Mart 7.5 Reference Manual* for your RDBMS (DB2, Microsoft SQL Server, or Oracle).

Table 174: Schema Changes in Release 7.5

Table/View	Column	Change Type	Changed in Release
CHAT_IXN_FACT_EXT		Table added.	7.5
CHAT_SEG_FACT_EXT		Table added.	7.5
EMAIL_IXN_FACT_EXT		Table added.	7.5
EMAIL_SEG_FACT_EXT		Table added.	7.5
GVP_APPLICATION		Table added.	7.5
GVP_CALL_FACT		Table added.	7.5
GVP_SUBCALL_FACT		Table added.	7.5
GVP_SUBCALL_FLOW		Table added.	7.5
GVP_VOICE_MEDIA_SERVER		Table added.	7.5
GVP_WEB_APPL_SERVER		Table added.	7.5
R_CHAT_IXN_FACT_EXT		Table added.	7.5
R_CHAT_SEG_FACT_EXT		Table added.	7.5
R_EMAIL_IXN_FACT_EXT		Table added.	7.5
R_EMAIL_SEG_FACT_EXT		Table added.	7.5
R_GVP_CALL_FACT		Table added.	7.5
R_GVP_SUBCALL_FACT		Table added.	7.5
R_VQ_SEGMENT_FACT		Table added.	7.5
USER_DATA_2		Table added.	7.5
VQ_SEGMENT_FACT		Table added.	7.5
INTERACTION_FACT	USER_DATA_2_KEY	Column added.	7.5
INTERACTION_FACT	MEDIA_SERVER_IXN_GUID	Column added.	7.5
INTERACTION_FACT	MEDIA_SERVER_ROOT_IXN_GUID	Column added.	7.5
INTERACTION_FACT	NETWORK_SEGMENT_COUNT	Column added.	7.5
INTERACTION_FACT	NETWORK_SEGMENT_DURATION	Column added.	7.5

Table 174: Schema Changes in Release 7.5 (Continued)

Table/View	Column	Change Type	Changed in Release
INTERACTION_FACT	USER_DATA_16	Column added.	7.5
INTERACTION_FACT	USER_DATA_17	Column added.	7.5
INTERACTION_FACT	USER_DATA_18	Column added.	7.5
INTERACTION_FACT	USER_DATA_19	Column added.	7.5
INTERACTION_FACT	USER_DATA_20	Column added.	7.5
INTERACTION_SEGMENT_FACT	USER_DATA_2_KEY	Column added.	7.5
INTERACTION_SEGMENT_FACT	MEDIA_SERVER_IXN_ID	Column added.	7.5
INTERACTION_SEGMENT_FACT	MEDIA_SERVER_IXN_GUID	Column added.	7.5
INTERACTION_SEGMENT_FACT	TARGET_ADDRESS	Column added.	7.5
INTERACTION_SEGMENT_FACT	USER_DATA_16	Column added.	7.5
INTERACTION_SEGMENT_FACT	USER_DATA_17	Column added.	7.5
INTERACTION_SEGMENT_FACT	USER_DATA_18	Column added.	7.5
INTERACTION_SEGMENT_FACT	USER_DATA_19	Column added.	7.5
INTERACTION_SEGMENT_FACT	USER_DATA_20	Column added.	7.5
R_INTERACTION_FACT	USER_DATA_2_KEY	Column added.	7.5
R_INTERACTION_FACT	MEDIA_SERVER_IXN_GUID	Column added.	7.5
R_INTERACTION_FACT	MEDIA_SERVER_ROOT_IXN_GUID	Column added.	7.5
R_INTERACTION_FACT	NETWORK_SEGMENT_COUNT	Column added.	7.5
R_INTERACTION_FACT	NETWORK_SEGMENT_DURATION	Column added.	7.5
R_INTERACTION_FACT	USER_DATA_16	Column added.	7.5
R_INTERACTION_FACT	USER_DATA_17	Column added.	7.5
R_INTERACTION_FACT	USER_DATA_18	Column added.	7.5
R_INTERACTION_FACT	USER_DATA_19	Column added.	7.5
R_INTERACTION_FACT	USER_DATA_20	Column added.	7.5
R_INTERACTION_SEGMENT_FACT	USER_DATA_2_KEY	Column added.	7.5

Table 174: Schema Changes in Release 7.5 (Continued)

Table/View	Column	Change Type	Changed in Release
R_INTERACTION_SEGMENT_FACT	MEDIA_SERVER_IXN_ID	Column added.	7.5
R_INTERACTION_SEGMENT_FACT	MEDIA_SERVER_IXN_GUID	Column added.	7.5
R_INTERACTION_SEGMENT_FACT	TARGET_ADDRESS	Column added.	7.5
R_INTERACTION_SEGMENT_FACT	USER_DATA_16	Column added.	7.5
R_INTERACTION_SEGMENT_FACT	USER_DATA_17	Column added.	7.5
R_INTERACTION_SEGMENT_FACT	USER_DATA_18	Column added.	7.5
R_INTERACTION_SEGMENT_FACT	USER_DATA_19	Column added.	7.5
R_INTERACTION_SEGMENT_FACT	USER_DATA_20	Column added.	7.5
RESOURCE	NETWORK_RESOURCE_FLAG	Column added.	7.5
ROUTING_TARGET	TARGET_OBJECT_SELECTED	Column added.	7.5
SCHEMA_INFO	MIGRATE_FLAG	Column added.	7.5
STRATEGY	STRATEGY_RESULT_CODE	Column added.	7.5
STRATEGY	STRATEGY_OUTCOME	Column added.	7.5
STRATEGY	STRATEGY_OUTCOME_CODE	Column added.	7.5
TECHNICAL_DESCRIPTOR	ROLE_REASON	Column added.	7.5
TECHNICAL_DESCRIPTOR	ROLE_REASON_CODE	Column added.	7.5

Schema Changes in the Info Mart Database 7.2

Table 175 lists the changes to the Info Mart database schema from Genesys Info Mart 7.0.2 to Genesys Info Mart 7.2. The Info Mart database schema is described in detail in the *Genesys Info Mart 7.2 Reference Manual* for your RDBMS (DB2, Microsoft SQL Server or Oracle).

Note: MEDIA_RESOURCE_KEY is a new column in INTERACTION_FACT, INTERACTION_SEGMENT_FACT, and RESOURCE_SESSION_FACT. This column represents the Extension or ACD Position associated with the fact. For existing facts in these tables, the migration script populates MEDIA_RESOURCE_KEY with a value representing the "Unknown" resource. This is because it is not possible to determine the correct MEDIA_RESOURCE_KEY once the data has already been populated in the Info Mart database.

Table 175: Schema Changes in Release 7.2

Table/View	Column	Change Type	Changed in Release
Changes Made for Aggregation			
AGGREGATE_CTRL_HOUR		Table added.	7.2
AGGREGATE_CTRL_DAY		Table added.	7.2
AGGREGATE_CTRL_MONTH		Table added.	7.2
AG_AGENT_VOICE_IXN_HOUR		Table added.	7.2
AG_AGENT_VOICE_IXN_DAY		Table added.	7.2
AG_AGENT_VOICE_IXN_WEEK		View added.	7.2
AG_AGENT_VOICE_IXN_MONTH		Table added.	7.2
AG_AGENT_VOICE_IXN_QUARTER		View added.	7.2
AG_AGENT_VOICE_IXN_YEAR		View added.	7.2
AG_SKILL_GROUP_ABN_HOUR		Table added.	7.2
AG_SKILL_GROUP_ABN_DAY		Table added.	7.2
AG_SKILL_GROUP_ABN_WEEK		View added.	7.2
AG_SKILL_GROUP_ABN_MONTH		Table added.	7.2
AG_SKILL_GROUP_ABN_QUARTER		View added.	7.2
AG_SKILL_GROUP_ABN_YEAR		View added	7.2
AG_SKILL_GROUP_HOUR		Table added.	7.2
AG_SKILL_GROUP_DAY		Table added.	7.2
AG_SKILL_GROUP_WEEK		View added.	7.2

Table 175: Schema Changes in Release 7.2 (Continued)

Table/View	Column	Change Type	Changed in Release
AG_SKILL_GROUP_MONTH		Table added.	7.2
AG_SKILL_GROUP_QUARTER		View added.	7.2
AG_SKILL_GROUP_YEAR		View added.	7.2
AG_SKILL_RESOURCE_ABN_HOUR		Table added.	7.2
AG_SKILL_RESOURCE_ABN_DAY		Table added.	7.2
AG_SKILL_RESOURCE_ABN_WEEK		View added.	7.2
AG_SKILL_RESOURCE_ABN_MONTH		Table added.	7.2
AG_SKILL_RESOURCE_ABN_QUARTER		View added.	7.2
AG_SKILL_RESOURCE_ABN_YEAR		View added.	7.2
AG_SKILL_RESOURCE_HOUR		Table added.	7.2
AG_SKILL_RESOURCE_DAY		Table added.	7.2
AG_SKILL_RESOURCE_WEEK		View added.	7.2
AG_SKILL_RESOURCE_MONTH		Table added.	7.2
AG_SKILL_RESOURCE_QUARTER		View added.	7.2
AG_SKILL_RESOURCE_YEAR		View added.	7.2
AG_SKILL_VOICE_INB_IXN_HOUR		Table added.	7.2
AG_SKILL_VOICE_INB_IXN_DAY		Table added.	7.2
AG_SKILL_VOICE_INB_IXN_WEEK		View added.	7.2
AG_SKILL_VOICE_INB_IXN_MONTH		Table added.	7.2
AG_SKILL_VOICE_INB_IXN_QUARTER		View added.	7.2
AG_SKILL_VOICE_INB_IXN_YEAR		View added.	7.2
AG_STATE_REASON_VOICE_HOUR		Table added.	7.2
AG_STATE_REASON_VOICE_DAY		Table added.	7.2
AG_STATE_REASON_VOICE_WEEK		View added.	7.2
AG_STATE_REASON_VOICE_MONTH		Table added.	7.2

Table 175: Schema Changes in Release 7.2 (Continued)

Table/View	Column	Change Type	Changed in Release
AG_STATE_REASON_VOICE_QUARTER		View added.	7.2
AG_STATE_REASON_VOICE_YEAR		View added.	7.2
AIV_INTERACTION_FACT		View added.	7.2
AIV_INTERACTION_SEGMENT_FACT		View added.	7.2
AIV_RESOURCE_GROUP_FACT		View added.	7.2
AIV_RESOURCE_STATE_REASON_FACT		View added.	7.2
AIV_VOICE_IXN_FACT_EXT		View added.	7.2
AIV_VOICE_SEG_FACT_EXT		View added.	7.2
TIME_RANGE		Table added.	7.2
ENTERPRISE_DATE	CAL_YEAR_WEEK_NUM	Column added.	7.2
ENTERPRISE_DATE	CAL_YEAR_MONTH_DAY_NUM	Column added.	7.2
ENTERPRISE_DATE	CAL_YEAR_MONTH_NUM	Column added.	7.2
ENTERPRISE_DATE	SECONDS_SINCE_EPOCH	Column added.	7.2
ENTERPRISE_MONTH	CAL_YEAR_MONTH_NUM	Column added.	7.2
ENTERPRISE_MONTH	CAL_YEAR	Column added.	7.2
Changes Made for Outbound Contact			
CALLING_LIST		Table added.	7.2
CALLING_LIST_METRIC_FACT		Table added.	7.2
CALLING_LIST_TO_CAMP_FACT		Table added.	7.2
CALL_RESULT		Table added.	7.2
CAMPAIGN		Table added.	7.2
CAMPAIGN_GROUP_SESSION_FACT		Table added.	7.2
CAMPAIGN_GROUP_STATE		Table added.	7.2
CAMPAIGN_GROUP_STATE_FACT		Table added.	7.2

Table 175: Schema Changes in Release 7.2 (Continued)

Table/View	Column	Change Type	Changed in Release
CONTACT_ATTEMPT_FACT		Table added.	7.2
CONTACT_INFO_TYPE		Table added.	7.2
DIALING_MODE		Table added.	7.2
GROUP_TO_CAMPAIGN_FACT		Table added.	7.2
RECORD_FIELD_GROUP_1		Table added.	7.2
RECORD_FIELD_GROUP_2		Table added.	7.2
RECORD_STATUS		Table added.	7.2
RECORD_TYPE		Table added.	7.2
TIME_ZONE		Table added.	7.2
Changes made for Resource State Reasons			
RESOURCE_STATE_REASON		Table added.	7.2
RESOURCE_STATE_REASON_FACT		Table added.	7.2
Changes made for Intraday Loading			
R_INTERACTION_FACT		Table added.	7.2
R_INTERACTION_SEGMENT_FACT		Table added.	7.2
R_VOICE_IXN_FACT_EXT		Table added.	7.2
R_VOICE_SEG_FACT_EXT		Table added.	7.2
R_PLACE_GROUP_FACT		Table added.	7.2
R_RESOURCE_GROUP_FACT		Table added.	7.2
R_RESOURCE_SKILL_FACT		Table added.	7.2
R_RESOURCE_SESSION_FACT		Table added.	7.2
R_RESOURCE_STATE_FACT		Table added.	7.2
R_RESOURCE_STATE_REASON_FACT		Table added.	7.2
R_CALLING_LIST_METRIC_FACT		Table added.	7.2

Table 175: Schema Changes in Release 7.2 (Continued)

Table/View	Column	Change Type	Changed in Release
R_CALLING_LIST_TO_CAMP_FACT		Table added.	7.2
R_CAMPAIGN_GROUP_SESSION_FACT		Table added.	7.2
R_CAMPAIGN_GROUP_STATE_FACT		Table added.	7.2
R_CONTACT_ATTEMPT_FACT		Table added.	7.2
R_GROUP_TO_CAMPAIGN_FACT		Table added.	7.2
R_AG_AGENT_VOICE_IXN_HOUR		Table added.	7.2
R_AG_SKILL_GROUP_ABN_HOUR		Table added.	7.2
R_AG_SKILL_GROUP_HOUR		Table added.	7.2
R_AG_SKILL_RESOURCE_ABN_HOUR		Table added.	7.2
R_AG_SKILL_RESOURCE_HOUR		Table added.	7.2
R_AG_SKILL_VOICE_INB_IXN_HOUR		Table added.	7.2
R_AG_STATE_REASON_VOICE_HOUR		Table added.	7.2
Other enhancements			
GROUP_	GROUP_TYPE_CODE	Column added.	7.2
GROUP_	GROUP_CFG_TYPE_ID	Column added.	7.2
INTERACTION_FACT	MEDIA_RESOURCE_KEY	Column added.	7.2
INTERACTION_FACT	AGENT_HANDLE_ DURATION	Column added.	7.2
INTERACTION_FACT	MET_SERVICE_ OBJECTIVE_FLAG	Column added.	7.2
INTERACTION_FACT	ANSWERED_WITH_ SKILL_MATCH_FLAG	Column added.	7.2
INTERACTION_SEGMENT_FACT	MEDIA_RESOURCE_KEY	Column added.	7.2
INTERACTION_TYPE	INTERACTION_TYPE_ CODE	Column added.	7.2
INTERACTION_TYPE	INTERACTION_SUBTYPE	Column added.	7.2
INTERACTION_TYPE	INTERACTION_SUBTYPE_ CODE	Column added.	7.2

Table 175: Schema Changes in Release 7.2 (Continued)

Table/View	Column	Change Type	Changed in Release
MEDIA_TYPE	MEDIA_NAME_CODE	Column added.	7.2
REQUESTED_SKILL	TENANT_KEY	Column added.	7.2
REQUESTED_SKILL_COMBINATION		Table added.	7.2
RESOURCE_	RESOURCE_TYPE_CODE	Column added.	7.2
RESOURCE_	RESOURCE_CFG_TYPE_ID	Column added.	7.2
RESOURCE_SESSION_FACT	MEDIA_RESOURCE_KEY	Column added.	7.2
RESOURCE_STATE_FACT	STATE_TYPE_CODE	Column added.	7.2
RESOURCE_STATE_FACT	STATE_NAME_CODE	Column added.	7.2
ROUTING_TARGET	ROUTING_TARGET_TYPE	Column added.	7.2
ROUTING_TARGET	ROUTING_TARGET_TYPE_CODE	Column added.	7.2
SCHEMA_INFO	INSTALL_TIME	Column added.	7.2
SCHEMA_INFO	MIGRATE_TIME	Column added.	7.2
STRATEGY	STRATEGY_TYPE_CODE	Column added.	7.2
TECHNICAL_DESCRIPTOR	TECHNICAL_RESULT_CODE	Column added.	7.2
TECHNICAL_DESCRIPTOR	RESULT_REASON_CODE	Column added.	7.2
TECHNICAL_DESCRIPTOR	RESOURCE_ROLE_CODE	Column added.	7.2
TENANT_DATE	CAL_YEAR_WEEK_NUM	Column added.	7.2
TENANT_DATE	CAL_YEAR_MONTH_DAY_NUM	Column added.	7.2
TENANT_DATE	CAL_YEAR_MONTH_NUM	Column added.	7.2
TIME_OF_DAY	TIME_INTERVAL_15_MINUTE_NUM	Column added.	7.2
TIME_OF_DAY	TIME_INTERVAL_30_MINUTE_NUM	Column added.	7.2
TIME_OF_DAY	TIME_INTERVAL_60_MINUTE_NUM	Column added.	7.2

Table 175: Schema Changes in Release 7.2 (Continued)

Table/View	Column	Change Type	Changed in Release
VOICE_IXN_FACT_EXT	AGENT_TALK_DURATION	Column added.	7.2
VOICE_IXN_FACT_EXT	AGENT_HOLD_DURATION	Column added.	7.2
VOICE_IXN_FACT_EXT	ANSWERED_BY_AGENT_FLAG	Column added.	7.2
VOICE_IXN_FACT_EXT	TRANSFERRED_BY_AGENT_FLAG	Column added.	7.2
VOICE_IXN_FACT_EXT	ABANDONED_BY_CUSTOMER_FLAG	Column added.	7.2
AUDIT	ARTIFICIALLY_ENDED	Column added.	7.2

Schema Changes in the Info Mart Database 7.0.2

Table 176 lists the Info Mart database schema changes for Genesys Info Mart 7.0.2. The Info Mart database schema is described in detail in the *Genesys Info Mart 7.0.2 Reference* for your RDBMS (DB2, Microsoft SQL Server or Oracle).

Table 176: Schema Changes in Release 7.0.2

Table/View	Column	Change Type	Changed in Release
AUDIT		Table added.	7.0.2
All tables	CREATE_AUDIT_KEY	Column added.	7.0.2
All tables	UPDATE_AUDIT_KEY	Column added.	7.0.2
All tables	GMT_ROW_CREATED_TIME	Column added.	7.0.2
All tables	GMT_ROW_UPDATED_TIME	Column added.	7.0.2
All tables	PURGE_FLAG	Column added.	7.0.2
INTERACTION_FACT	ACTIVE_FLAG	Column added.	7.0.2
INTERACTION_SEGMENT_FACT	ACTIVE_FLAG	Column added.	7.0.2
RESOURCE_SESSION_FACT	ACTIVE_FLAG	Column added.	7.0.2

Table 176: Schema Changes in Release 7.0.2 (Continued)

Table/View	Column	Change Type	Changed in Release
RESOURCE_STATE_FACT	ACTIVE_FLAG	Column added.	7.0.2
VOICE_IXN_FACT_EXT	STD_ENTERPRISE_DATE_KEY	Column added.	7.0.2
VOICE_IXN_FACT_EXT	STD_TENANT_DATE_KEY	Column added.	7.0.2
VOICE_IXN_FACT_EXT	ACTIVE_FLAG	Column added.	7.0.2
VOICE_SEG_FACT_EXT	STD_ENTERPRISE_DATE_KEY	Column added.	7.0.2
VOICE_SEG_FACT_EXT	STD_TENANT_DATE_KEY	Column added.	7.0.2
VOICE_SEG_FACT_EXT	ACTIVE_FLAG	Column added.	7.0.2

Chapter

52 Genesys Info Mart Migration Procedures

This chapter provides a high-level description of the migration procedures for Genesys Info Mart 7.x and for other products that support and enable it. Refer to the other sections of this book for detailed information to help you migrate Framework and other Genesys solutions, such as Call Concentrator.

Note: The migration process for Genesys Info Mart 8.x releases is described in a separate section of the *Genesys Migration Guide*.

This chapter contains the following sections:

Note: The information in this chapter covers migration information for Genesys Info Mart up to general release 7.6.014. If you are migrating your Genesys Info Mart from release 7.5, 7.2, or 7.0 to a general release later than 7.6.014.x, contact Genesys Technical Support for available migration instructions. If you are upgrading your Genesys Info Mart from a 7.6 release to a later 7.6 release, consult the Deployment Procedure supplied with the release to which you are upgrading.

Migrating Genesys Info Mart from 7.5.x to 7.6.x

This section describes the steps that are required to migrate Genesys Info Mart and supporting software from release 7.5.x to release 7.6.x.

Migration Roadmap

The migration procedure from release 7.5.x to 7.6.x is provided for:

- An environment with Genesys Info Mart 7.5.005 or later.
- An environment with Genesys Info Mart 7.5.004 or later.

You can migrate to the currently shipping version of Genesys Info Mart 7.6.x.

Note: If you have a 7.5 release earlier than 7.5.004.07, upgrade to release 7.5.004.07 using the *Deployment Procedure* supplied with it, and then use the migration instructions in this document to migrate from release 7.5.004.07 to 7.6.

The migration process preserves the Genesys Info Mart functionality available to you in release 7.5.x within your current data source environment:

- Genesys does not recommend migrating any of the data sources at the time of Genesys Info Mart migration. If you need to migrate any of the data sources to a more recent release, do so after you complete the Genesys Info Mart migration successfully. Refer to *Genesys Info Mart 7.6 Operations Guide* for guidelines.
- If you need to enable new features introduced in release 7.6, do so after you complete the Genesys Info Mart migration successfully. Refer to the *Genesys Info Mart 7.6 Deployment Guide* for information on how to enable new features.

Notes:

- If you choose to enable some of the new functionality that requires Interaction Concentrator 7.6, do not create a new ICON `Application` object in the Configuration Layer when upgrading Interaction Concentrator. Instead, use the existing `Application` in the Configuration Layer when you install the Interaction Concentrator upgrade. Refer to the *Genesys Info Mart 7.6 Operations Guide* for details.
- If you choose to enable support for high availability (HA) of Outbound Contact reporting, which requires Interaction Concentrator 8.0, you must create new ICON `Application` objects and Interaction Databases (IDBs) in the Configuration Layer. Refer to the *Genesys Info Mart 7.6 Deployment Guide* and *Interaction Concentrator 8.0 Deployment Guide* for details.

Migration Planning

1. Make sure to review all of the instructions carefully before you execute any of them.
2. Review the *Genesys Info Mart 7.6 Release Advisory* for information about known operating system and RDBMS issues, and potential ways to work around these issues.
3. Review the data-size estimates for the Staging Area database in the *Genesys Info Mart 7.6 Database Size Estimator*. The 7.6 release stores more data than the 7.5 release; therefore, if necessary, allocate more physical database storage.
4. Review the data-size estimates for the Info Mart 7.6 database in the *Genesys Info Mart 7.6 Database Size Estimator*. The 7.6 release stores more data than the 7.5 release; therefore, if necessary, allocate more physical database storage.
5. Plan to execute your migration at a time when there is relatively little contact center activity and relatively little demand for access to Info Mart database data for reporting purposes, such as during a regularly scheduled maintenance window. Several of the steps can take a significant amount of time to complete, which might affect the availability of Info Mart data.

   Carefully following the migration procedure in this document helps you to:
   - Minimize the time where Genesys Info Mart is not extracting, transforming, and loading new data.
   - Minimize the time where the Info Mart database is not available for reporting.
6. Review the information about the new job, `Job_MigrateGIM`, in the *Genesys Info Mart 7.6 Operations Guide*. It is important that you understand the role of this job in the migration process and its effect on other daily jobs.

Remember that, during its first run, `Job_MigrateGIM` will migrate the data from the critical tables only. Plan on scheduling `Job_MigrateGIM` to run on a daily basis to migrate the data from non-critical tables until all data is migrated. This should minimize the impact of the migration process on your operations.

7. If you are currently storing ICON Voice details and ICON Multimedia details in the same IDB, you must now store them in separate IDBs. The "Pre-Migration Procedure" section below includes a procedure to separate the storage of ICON Multimedia details.
8. If you are migrating from release 7.5.005.05 or a later 7.5 release, review the changes to technical descriptor keys described in "Technical Descriptor Key Changes" on page 996. Analyze if you require any adjustments to your custom fact, summary, or aggregate tables that depend on those keys. Plan to make any necessary adjustments after completing critical data migration.

Pre-Migration Procedure

Preserving Custom Changes

Identify any custom changes that you made to the Genesys Info Mart 7.5 Merge Staging Area, Staging Area, and Info Mart databases—for example, table spaces, partitions, additional indexes, views, or permissions. This includes the permissions or privileges that you granted to the users of the Staging Area and Info Mart databases, as described in the section about database privileges in the *Genesys Info Mart 7.5 Deployment Guide*.

The Genesys Info Mart SQL scripts that you will run to update these databases sometimes create new tables, instead of updating the old tables. They also replace some tables with views, for backward compatibility. You will need to re-create any custom database objects or permissions that become lost or invalidated during the update process.

Check if you customized any of the application startup arguments for your Genesys Info Mart 7.5 application. The 7.6 installation process will overwrite these arguments and you will lose any changes you made. You will need to customize the startup arguments once again for the 7.6 application in one of the following locations, depending on your startup process for Genesys Info Mart Server:

- If you are running Genesys Info Mart Server as a Windows service, the `Path to executable:` text box of the Windows Service `Properties` dialog box includes the startup arguments. They could also be copied to the `gim_etl_update_service_arguments.bat` file located in your `gim-etl` home folder.
- If you are using Genesys Solution Control Interface to start and stop Genesys Info Mart Server, the `Start Info` tab of the Genesys Info Mart `Application` object in Configuration Manager includes the command-line arguments.

- If you are using the `gim_etl_server.bat` file to start Genesys Info Mart Server, the `.bat` file includes the command-line arguments. (The `gim_etl_server.bat` file is located in your `gim-etl` home folder.)

Storing Voice and Multimedia Details in Separate IDBs

With Genesys Info Mart release 7.6, the ICON application that you use to store Multimedia data *must* use a different IDB than any ICON application that is storing Voice details. If you are currently storing Voice details and Multimedia details in the same IDB, you must now begin storing them in separate IDBs.

Note: Loss of Multimedia interaction data may occur in Genesys Info Mart when changing the IDB used to store ICON Multimedia details. Genesys Info Mart may have incomplete information for interactions that were active at the time Multimedia data was being populated to the old (joint) IDB, and completed at the time Multimedia data was being populated to the new IDB.

Use the following procedure to separate the storage of Voice details and Multimedia details into different IDBs:

Note: All references to the ICON application in the procedure imply the ICON application that you have dedicated to handling the Multimedia data.

1. Create and initialize a new IDB (hereafter referred to as *Multimedia IDB*) to contain ICON Multimedia details (separate from ICON Voice details).

   Refer to the *Interaction Concentrator 7.5 Deployment Guide* for instructions on how to create and initialize an IDB.

   Also, use the instructions in the "Preparing IDB" section of the *Genesys Info Mart 7.5 Deployment Guide* to:
   - Run the SQL scripts that are provided with Genesys Info Mart 7.5 for the new IDB (`make_icon_indexes_for_gim.sql` and `make_iconmm_indexes_for_gim.sql`).
   - Ensure that database access is configured correctly so that Genesys Info Mart 7.5 can access the IDB data.
2. Configure a Database Access Point (DAP) for the ICON application to access this new IDB:
   - Use distinctive naming convention for the `DAP` configuration object.
   - Make sure the `role` option includes `gcc`, `gud`, `gls` values for this `DAP`.
   - Do not add this `DAP` to the ICON's `Connections` tab at this time.

   Refer to the *Interaction Concentrator 7.5 Deployment Guide* for the procedure for configuring a DAP for an IDB.
3. Configure a DAP for Genesys Info Mart to use to access the Multimedia IDB:
   - Use distinctive naming convention for the `DAP` object.

- Specify the `role` option with the `ICON_MM` value for this `DAP`.

Refer to the *Genesys Info Mart 7.5 Deployment Guide* for the procedure for configuring a DAP with the role `ICON_MM`.

4. Add the `DAP` object you have created in Step 3 to the `Connections` tab of the Genesys Info Mart `Application` object.
5. Stop your ICON application.

   Refer to the *Interaction Concentrator 7.5 Deployment Guide* for the procedure for stopping Interaction Concentrator.
6. Add the new ICON `DAP` object you have created in Step 2 to the `Connections` tab of the ICON `Application` object.
7. Remove the old ICON `DAP` object (used to access the IDB where Voice details and Multimedia details were joint) from the `Connections` tab of the ICON `Application` object.
8. Start your ICON application.

   Refer to the *Interaction Concentrator 7.5 Deployment Guide* for the procedure for starting Interaction Concentrator.

   The ICON application should now store Multimedia details to the new IDB, and this new IDB should not contain any Voice details.

As a result, Genesys Info Mart is now able to extract the data from the new Multimedia IDB as well as the remaining Multimedia data from the old IDB (where Voice details and Multimedia details were joint).

To complete the separation of Multimedia details storage from Voice details storage, perform the following steps, either before or after migrating Genesys Info Mart to release 7.6:

1. Monitor the Genesys Info Mart data extraction until all of the Multimedia data is extracted from the old (joint) IDB.

   You can use the `ADMIN_EXTRACT_HISTORY` view (described in *Genesys Info Mart 7.5 Operations Guide*) to tell when all of the Multimedia data from the old (joint) IDB has been processed by Genesys Info Mart. Look at the rows where `DBCONNECTION` indicates the old (joint) IDB; once the `LATEST_DATA_TIME` column reaches the time of the last Multimedia data that was written to the old IDB, all of the Multimedia data from the old IDB should have been processed.
2. After Genesys Info Mart has extracted all of the Multimedia data from the old (joint) IDB, remove the `ICON_MM` role from the `DAP` object that provides access to the old (joint) IDB. (You may want to wait an additional week before removing the `ICON_MM` role from the old `DAP`.)

   This way, Genesys Info Mart detects that only Voice details should now be extracted from that IDB.

Migration Procedure

1. Stop the Genesys Info Mart 7.5 Scheduler by setting the `run-scheduler` configuration option to `FALSE` in the `schedule` section of the `Genesys Info Mart Application` object. This will prevent the Genesys Info Mart 7.5 Server from running 7.5 ETL jobs automatically.
2. Use the Genesys Info Mart Administration Console 7.5 to run a final ETL cycle manually with the 7.5 jobs, including:
   a. The data extraction jobs that you normally schedule (`Job_ExtractICON`, `Job_ExtractSS`, and `Job_ExtractGVP`, as applicable).
   b. `Job_TransformGIM`.
   c. `Job_LoadRecent`.
3. Use the Genesys Info Mart Administration Console 7.5 to run the 7.5 daily jobs that you normally schedule:
   a. `Job_LoadGIM`—This step moves all data from the intraday fact tables (with the exception of active e-mail interactions) to the historical fact tables.
   b. `Job_AggregateGIM`.
   c. `Job_MaintainGIM`.
4. Use Solution Control Interface (SCI) to stop the Genesys Info Mart 7.5 Server process.

   Note: From this point onward, the ETL engine will process no new data until all critical migration is complete and until it is safe to resume ETL execution by using the 7.6 ETL jobs.

5. If you perform multi-IDB merge in your deployment, back up your 7.5 Merge Staging Area database.
6. Back up your 7.5 Staging Area database.
7. Back up your 7.5 Info Mart database.
8. Back up the files that you customized from your Genesys Info Mart 7.5 installation package. The installation process will overwrite theses files and you will lose any changes that you made.
9. Make a note of the application startup arguments if you customized them for your Genesys Info Mart 7.5 application. The installation process will overwrite these arguments and you will lose any changes you made.
   - If you are running Genesys Info Mart Server as a Windows service, you should have modified the startup arguments in the `gim_etl_update_service_arguments.bat` file when you deployed your Genesys Info Mart Server 7.5. If you modified the `gim_etl_update_service_arguments.bat` file with release 7.5, back up a copy of your `.bat` file that is located in your `gim-etl` home folder.

- If you are not running Genesys Info Mart Server as a Windows service, but rather use Genesys Solution Control Interface to start and stop Genesys Info Mart Server, note the command-line arguments on the `Start Info` tab of the Genesys Info Mart `Application` object in Configuration Manager.
- If you are using the `gim_etl_server.bat` file to start Genesys Info Mart Server, back up a copy of your `gim_etl_server.bat` file that is located in your `gim-etl` home folder.

10. Install the Genesys Info Mart 7.6 installation package on your Genesys Info Mart Server host over your current Genesys Info Mart 7.5 installation.

See the chapter about installing Genesys Info Mart components in the *Genesys Info Mart 7.6 Deployment Guide.*

11. Update the 7.6 application startup arguments if you previously customized them for your Genesys Info Mart 7.5 application.

- If you are running Genesys Info Mart Server as a Windows service, open the `General` tab of the Genesys Info Mart 7.6 Windows service `Properties` window. Copy the arguments for the 7.6 application from the `Path to executable:` text box to the `gim_etl_update_service_arguments.bat` file located in your 7.6 `gim-etl` home folder. Update the arguments per the 7.5 backup copy of the `.bat` file that you created in Step 9, but preserve the path to the 7.6 executable. Once you update the 7.6 `.bat` file, execute it in order for the changes to take affect. Genesys recommends that you make the same changes to the Genesys Info Mart `Application` object in the Configuration Manager.
- If you are using Genesys Solution Control Interface to start and stop Genesys Info Mart Server, modify the command-line arguments on the `Start Info` tab of the Genesys Info Mart Application object in Configuration Manager, as noted in Step 9. Preserve the path to the 7.6 executable.
- If you are using the `gim_etl_server.bat` file to start Genesys Info Mart Server, use the content of the backup 7.5 `gim_etl_server.bat` file to update the command-line arguments in the 7.6 copy of the `gim_etl_server.bat` file that the installation placed into your `gim-etl` home folder. Preserve the path to the 7.6 executable.

12. Install the Genesys Info Mart 7.6 Administration Console installation package on your Configuration Manager host over your current, Genesys Info Mart Administration Console 7.5 installation.

13. Run the SQL script that is provided with Genesys Info Mart release 7.6 to migrate the Staging Area database schema.

Notes:

- Make sure that you back up your 7.5 Staging Area database before you run the migration script. This step can take a long time depending on the amount of data in the database.
- Also, make sure that you turn on database session logging, so that if the script fails before it is finished, it will be easy for you to determine which statements have been completed successfully; then, you can eliminate these from the script before you restart it.
- If you cannot determine which statements completed successfully, restore the 7.5 Staging Area database from the backup you just created and repeat Steps 13a through 13e.

Use your RDBMS management tool to:

a. Navigate to the `genesys_info_mart\db_scripts` subdirectory of the Genesys Info Mart 7.6 product CD.

b. Navigate to the `unix` or `windows` subdirectory that corresponds to the operating system on which you will be running the database scripts.

c. Navigate to the `sql_scripts` subdirectory.

d. Navigate to the RDBMS-specific directory that corresponds to your Staging Area database type (`db2`, `mssql`, or `oracle`).

e. Run the `migrate_gim_staging_area.sql` script.

Ignore error messages indicating that objects cannot be created or renamed because they already exist or do not yet exist. The following are specific examples of objects that might cause these error messages:

- `STG_EXTRACT_THROTTLE.UNFINISHED` column
- `STG_ICON_CALL_INFO.ICI_CAF_KEY_IDX` index
- `STG_ICON_CALL_INFO.ICI_CALLID_IDX` index
- `STG_PARTY_SEGMENT_INFO.STG_PSI_INT_SEG_IDX` index

Note: The SQL scripts do not qualify database objects according to their schema or owner. When you run the SQL scripts, make sure that you use the ID of the schema or owner to log in to the database. You noted this information in the appropriate section of the installation checklist in the *Genesys Info Mart 7.6 Deployment Guide.*

14. Run the SQL script that is provided with Genesys Info Mart release 7.6 to load the Staging Area database with metadata used by the jobs that perform aggregation (`JOB_LoadRecent` and `JOB_AggregateGIM`).

Use your RDBMS management tool to:

a. Navigate to the `genesys_info_mart\db_scripts` subdirectory of the Genesys Info Mart 7.6 product CD.

b. Navigate to the `unix` or `windows` subdirectory that corresponds to the operating system on which you will be running the database scripts.

c. Navigate to the `sql_scripts` subdirectory.

d. Navigate to the RDBMS-specific directory that corresponds to your Staging Area database type (`db2`, `mssql`, or `oracle`).

e. Run the `load_gim_staging_area.sql` script.

15. Run the SQL script that is provided with Genesys Info Mart release 7.6 to migrate the Info Mart database schema.

Warning! From this point onward, the Info Mart database should not be accessed by report queries or other scheduled activities, such as custom aggregation, until all critical migration is complete. Doing otherwise would interfere with the migration process which will be modifying database tables, views, and indexes, and performing critical data migration.

Notes:

- Make sure that you back up your 7.5 Info Mart database before you run the migration script. This step can take a long time, depending on the amount of data in the database.
- Also make sure that you turn on database session logging, so that if the script fails before it is finished, it will be easy for you to determine which statements have completed successfully; then, you can eliminate these from the script before you restart it.
- If you cannot determine which statements completed successfully, restore the 7.5 Info Mart database from the backup you just created and repeat Steps 15a through 15e.

Use your RDBMS management tool to:

a. Navigate to the `genesys_info_mart\db_scripts` subdirectory of the Genesys Info Mart 7.6 product CD.

b. Navigate to the `unix` or `windows` subdirectory that corresponds to the operating system on which you will be running the database scripts.

c. Navigate to the `sql_scripts` subdirectory.

d. Navigate to the RDBMS-specific directory that corresponds to your Info Mart database type (`db2`, `mssql`, or `oracle`).

e. Run the `migrate_gim.sql` script.

16. Run the SQL script that is provided with Genesys Info Mart release 7.6 to re-create the Genesys Info Mart read-only views.

Notes:

- The SQL script does not specify any particular logical or physical storage—for example, table spaces and partitions. Review and, if necessary, modify the SQL script to make sure that it is suitable for your deployment.
- Also, see the note about schemas and owners under Step 13 (page 1047).

Use your RDBMS management tool to:

a. Navigate to the `genesys_info_mart\db_scripts` subdirectory of the Genesys Info Mart 7.6 product CD.

b. Navigate to the `unix` or `windows` subdirectory that corresponds to the operating system on which you will be running the database scripts.

c. Navigate to the `sql_scripts` subdirectory.

d. Navigate to the RDBMS-specific directory that corresponds to your Info Mart database type (`db2`, `mssql`, or `oracle`).

e. Run the `make_gim_view.sql` script.

17. In a multi-tenant environment, run the SQL script that is provided with Genesys Info Mart release 7.6 to re-create the tenant-specific read-only views.

Note: Specify parameters for the owner ID and views owner ID.

Use your RDBMS management tool to:

a. Navigate to the `genesys_info_mart\db_scripts` subdirectory of the Genesys Info Mart 7.6 product CD.

b. Navigate to the `unix` or `windows` subdirectory that corresponds to the operating system on which you will be running the database scripts.

c. Navigate to the `sql_scripts` subdirectory.

d. Navigate to the RDBMS-specific directory that corresponds to your Info Mart database type (`db2`, `mssql`, or `oracle`).

e. Run the `make_gim_view_for_tenant.sql` script once for each tenant that Genesys Info Mart monitors.

18. Re-create any custom database objects, such as views or indexes, or permissions that you created on top of the out-of-box Genesys Info Mart database objects. (You identified these objects and permissions in "Pre-Migration Procedure" on page 1042.)

19. Create indexes in IDB(s) from which Genesys Info Mart extracts Configuration details.

    Use your RDBMS management tool to perform the following actions against each IDB with the DAP role equal to `ICON_CFG`:

    a. Navigate to the `genesys_info_mart\db_scripts` subdirectory of the Genesys Info Mart 7.6 product CD.
    b. Navigate to the `unix` or `windows` subdirectory that corresponds to the operating system on which you will be running the database scripts.
    c. Navigate to the `sql_scripts` subdirectory.
    d. Navigate to the RDBMS-specific directory that corresponds to the IDB database type (`db2`, `mssql`, or `oracle`).
    e. Run the `make_icon_cfg_indexes_for_gim.sql` script.

20. Create and update tables and indexes in IDB(s) from which Genesys Info Mart extracts Voice or Multimedia details.

    Use your RDBMS management tool to perform the following actions against each IDB with the DAP role equal to `ICON_CORE` or `ICON_MM`:

    a. Navigate to the `genesys_info_mart\db_scripts` subdirectory of the Genesys Info Mart 7.6 product CD.
    b. Navigate to the `unix` or `windows` subdirectory that corresponds to the operating system on which you will be running the database scripts.
    c. Navigate to the `sql_scripts` subdirectory.
    d. Navigate to the RDBMS-specific directory that corresponds to the IDB database type (`db2`, `mssql`, or `oracle`).
    e. Run the `migrate_icon_indexes_for_gim.sql` script.

21. Update indexes in IDB(s) from which Genesys Info Mart extracts Multimedia details.

    Use your RDBMS management tool to perform the following actions against each IDB with the DAP role equal to `ICON_MM`:

    a. Navigate to the `genesys_info_mart\db_scripts` subdirectory of the Genesys Info Mart 7.6 product CD.
    b. Navigate to the `unix` or `windows` subdirectory that corresponds to the operating system on which you will be running the database scripts.
    c. Navigate to the `sql_scripts` subdirectory.
    d. Navigate to the RDBMS-specific directory that corresponds to the IDB database type (`db2`, `mssql`, or `oracle`).
    e. Run the `migrate_iconmm_indexes_for_gim.sql` script.

22. Add indexes in IDB(s) from which Genesys Info Mart extracts Outbound Contact details.

    Use your RDBMS management tool to perform the following actions against each IDB with the DAP role equal to `ICON_OCS`:

    a. Navigate to the `genesys_info_mart\db_scripts` subdirectory of the Genesys Info Mart 7.6 product CD.

b. Navigate to the `unix` or `windows` subdirectory that corresponds to the operating system on which you will be running the database scripts.

c. Navigate to the `sql_scripts` subdirectory.

d. Navigate to the RDBMS-specific directory that corresponds to the IDB database type (`db2`, `mssql`, or `oracle`).

e. Run the `make_icon_ocs_indexes_for_gim.sql` script.

23. If you are running a multi-IDB topology with a Merge Staging Area configured, update indexes and primary key definitions.

Use your RDBMS management tool to perform the following actions against the Merge Staging Area database:

a. Navigate to the `genesys_info_mart\db_scripts` subdirectory of the Genesys Info Mart 7.6 product CD.

b. Navigate to the `unix` or `windows` subdirectory that corresponds to the operating system on which you will be running the database scripts.

c. Navigate to the `sql_scripts` subdirectory.

d. Navigate to the RDBMS-specific directory that corresponds to the Staging Area database type (`db2`, `mssql`, or `oracle`).

e. Run the `upgrade_merging_to_76006.sql` script.

24. Run the Genesys Info Mart 7.6 Configuration Checker utility to verify your configuration option settings and database connectivity.

See the chapter about post-installation activities in the *Genesys Info Mart 7.6 Deployment Guide*.

25. Use SCI to start the Genesys Info Mart 7.6 Server process.

26. From the Genesys Info Mart Administration Console 7.6, run `Job_MigrateGIM`, specifying the `<ALL SOURCES>` DAP. Started in this manner, the migration job will perform all critical data migration that is required before you can resume ETL processing.

The Genesys Info Mart Administration Console will indicate when the migration job has completed successfully:

- A successful completion of the job means that all data from the critical tables has been migrated.
- If `Job_MigrateGIM` fails to complete, the log file that Genesys Info Mart Server generates will indicate the cause of the failure. After you correct the issue that caused the failure, use the Genesys Info Mart Administration Console to re-run `Job_MigrateGIM`. The job will resume where it left off.

27. Configure the Genesys Info Mart 7.6 to run the `Job_MigrateGIM` as a daily job. Started in this manner, the migration job will perform the data migration that is not critical to be completed before you resume ETL processing.

To do so, set the configuration options that control `Job_MigrateGIM` in `schedule` section of the Genesys Info Mart `Application` object:

- `run-migration` (which is set to `FALSE` by default)
- `migration-start-time` (which is set to `04:00` by default)
- `migration-duration-in-hours` (which is set to `1` by default)

Note: If you set the `migration-duration-in-hours` option to `0`, the migration job will run until all data is migrated; however, this process may take a long time and delay regular Genesys Info Mart operations. To decide whether migration of the non-critical data in one run is acceptable for your environment, review the "Job_MigrateGIM" section of the *Genesys Info Mart 7.6 Operations Guide*.

For complete descriptions of these options, including their valid values, refer to the section about configuring Genesys Info Mart options in *Genesys Info Mart 7.6 Deployment Guide*.

Note: If `Job_MigrateGIM` fails to complete, the log file that Genesys Info Mart Server generates will indicate the cause of the failure. After you correct the issue that caused the failure, use the Genesys Info Mart Administration Console to re-run `Job_MigrateGIM`. The job will resume where it left off.

28. Start the Genesys Info Mart 7.6 Scheduler by setting the `run-scheduler` configuration option to `TRUE` in the `schedule` section of the Genesys Info Mart `Application` object.

Note: At this point, you have completed the critical migration. It is now safe to resume ETL execution by using the 7.6 ETL jobs. It is also now safe to access the Info Mart database to produce reports and run other scheduled activities, such as custom aggregation.

29. Use the Genesys Info Mart Administration Console 7.6 to monitor whether Genesys Info Mart 7.6 ETL jobs are completing successfully, as scheduled.
30. Use your RDBMS management tool to issue the following SQL statement against the Info Mart database schema in order to determine that `Job_MigrateGIM` has completed the migration of all non-critical data:

```
SELECT
   TABLE_NAME, COMPLETED_FLAG
FROM
   DATA_MIGRATION;
```

When all table values return `COMPLETED_FLAG=1`, the data migration is complete.

31. After you have verified that `Job_MigrateGIM` has completed performing all non-critical data migration, configure the Genesys Info Mart Server not to run `Job_MigrateGIM` as a daily job. To do so, set the `run-migration` configuration option to `FALSE` in the `schedule` section of the Genesys Info Mart `Application` object.
32. To complete the migration process, run the SQL script that is provided with Genesys Info Mart release 7.6 to create the Genesys Info Mart read-only views in place of certain tables, for backward compatibility, and reset database constraints for the Info Mart database.
    a. Use SCI to temporarily stop the Genesys Info Mart 7.6 Server process.
    b. Use the Genesys Info Mart Administration Console 7.6 to monitor completion of any running ETL jobs.
    c. Use your RDBMS management tool to navigate to the `genesys_info_mart\db_scripts` subdirectory of the Genesys Info Mart 7.6 product CD.
    d. Navigate to the `unix` or `windows` subdirectory corresponding to the operating system on which you will be running the database scripts.
    e. Navigate to the `sql_scripts` subdirectory.
    f. Navigate to the RDBMS-specific directory that corresponds to your Info Mart database type (`db2`, `mssql`, or `oracle`).
    g. Run the `migrate_gim_done.sql` script against the Info Mart database.
    h. Use SCI to start the Genesys Info Mart 7.6 Server process.
    i. Use the Genesys Info Mart Administration Console 7.6 to verify that Genesys Info Mart 7.6 starts launching ETL jobs successfully.

Note: At successful completion of the migration job, adjustments to the technical descriptor keys are completed as well. If you are migrating from release 7.5.005 (or a later 7.5 release) to release 7.6.003 (or a later 7.6 release), make any additional adjustments, if necessary, to your custom fact, summary, and aggregate tables that are dependent on the technical descriptor keys.

Migrating Genesys Info Mart from 7.2.x to 7.6.x

This section describes the steps that are required to migrate Genesys Info Mart and supporting software from release 7.2.x to release 7.6.x.

Migrating Genesys Info Mart from release 7.2.x to release 7.6.x requires a two-step migration process:

1. Migrate Genesys Info Mart from release 7.2.x to 7.5.x (see “Migrating Genesys Info Mart from 7.2.x to 7.5.x” on page 1054).

2. Migrate Genesys Info Mart from release 7.5.x to 7.6.x (see "Migrating Genesys Info Mart from 7.5.x to 7.6.x" on page 1040).

Migrating Genesys Info Mart from 7.0.2 to 7.6.x

This section describes the steps that are required to migrate Genesys Info Mart and supporting software from release 7.0.2 to release 7.6.x.

Migrating Genesys Info Mart from release 7.0.2 to release 7.6.x requires a three-step migration process:

1. Migrate Genesys Info Mart from release 7.0.2 to 7.2.x (see "Migrating Genesys Info Mart from 7.0.2 to 7.2.x" on page 1063).
2. Migrate Genesys Info Mart from release 7.2.x to 7.5.x (see "Migrating Genesys Info Mart from 7.2.x to 7.5.x" on page 1054).
3. Migrate Genesys Info Mart from release 7.5.x to 7.6.x (see "Migrating Genesys Info Mart from 7.5.x to 7.6.x" on page 1040).

Migrating Genesys Info Mart from 7.2.x to 7.5.x

This section describes the steps that are required to migrate Genesys Info Mart and supporting software from release 7.2.x to release 7.5.x.

Notes:

- You must migrate to release 7.5.005.17, or a later 7.5 release. Genesys does not support migrating from 7.2 to any release of Genesys Info Mart earlier than 7.5.005.17.
- Genesys Info Mart 7.5 is considered a major software release that contains many architectural changes and functional enhancements. Genesys *strongly* recommends that you carefully plan and practice migrating to Genesys Info Mart 7.5 in a non-production environment *before* you perform the migration in your production environment.
- It is important also that you test the population of new data in your non-production environment, to ensure compatibility with your current reporting application SQL queries—particularly for Genesys Info Mart facts and dimensions that are populated from attached data key-value pairs that are extracted from ICON data sources.

Migration Planning

1. Perform any necessary operating system upgrades. For information about the operating system versions that Genesys Info Mart 7.5 supports, see the *Genesys Supported Operating Environment Reference Guide*.
2. Perform any necessary relational database management system (RDBMS) client and server upgrades. For information about the RDBMS versions that Genesys Info Mart 7.5 supports, see the *Genesys Supported Operating Environment Reference Guide*.
3. Review the *Genesys Info Mart 7.5 Release Advisory* for information about known operating system and RDBMS issues, and potential ways to work around these issues.
4. Determine the version of the Java Development Kit (JDK) that is installed. Genesys Info Mart requires a Java 1.5 JDK version that supports the 2007 changes to the U.S. daylight saving time. (Consult your Java vendor for details.) For more information, see the section about software requirements in the *Genesys Info Mart 7.5 Deployment Guide*.
5. Determine whether a Java Database Connectivity (JDBC) driver is installed for your RDBMS. Genesys Info Mart 7.5 requires you to install a JDBC driver for your RDBMS. For more information about supported JDBC drivers and how to install and configure them for Genesys Info Mart, see the section about preparing the Genesys Info Mart Server host in the *Genesys Info Mart 7.5 Deployment Guide*.
6. Upgrade your Interaction Concentrator to release 7.5 if you are using Interaction Concentrator 7.2 to collect Outbound Contact data for Genesys Info Mart. Make sure to perform this upgrade at a time when there are no active campaign sessions in progress.
7. Create a new database schema for the Merge Staging Area if you intend to extract Voice interaction data from multiple Interaction Concentrator Interaction Databases (IDBs).
8. Review the data-size estimates for the Staging Area database in the *Genesys Info Mart 7.5 Database Size Estimator*. The 7.5 release stores more data than the 7.2 release; therefore, if necessary, allocate more physical database storage.
9. Review the data-size estimates for the Info Mart 7.5 database in the *Genesys Info Mart 7.5 Database Size Estimator*. The 7.5 release stores more data than the 7.2 release; therefore, if necessary, allocate more physical database storage.
10. The extraction, transformation, and loading (ETL) jobs that ship with Genesys Info Mart 7.5 differ from those in previous releases. To plan an ETL job schedule that is suitable for your environment, review the descriptions of the Genesys Info Mart 7.5 ETL jobs— and how to schedule them—in the section about data transformation in the *Genesys Info Mart 7.5 Operations Guide*.

11. Plan a time when you can complete this migration. Several of the steps can take a significant amount of time to complete, which might affect the availability of Info Mart data.

Pre-Migration Procedure

Identify any custom changes that you made to the Genesys Info Mart 7.2 Staging Area and Info Mart databases—for example, table spaces, partitions, additional indexes, views, or permissions. This includes the permissions or privileges that you granted to the users of the Staging Area and Info Mart databases, as described in the section about database privileges in the Genesys Info Mart 7.5 Deployment Guide.

The Genesys Info Mart SQL scripts that you will run to update these databases sometimes create new tables, instead of updating the old tables. You will need to re-create any custom database objects or permissions that become lost or invalidated during the update process.

Migration Procedure

1. From Configuration Manager, create and configure Interaction Concentrator 7.5 `Application` objects(s) to replace all of the following:
   - Your existing Call Concentrator source(s) (`role` is `gcc`).
   - Your Stat Server data sources that collect resource session information (`role` is `gls`).

   Note: Stat Server will continue to populate voice resource states and reasons.

   - Your Configuration data source (`role` is `cfg`).

   For information about configuring the Interaction Concentrator application, see the section about preparing Interaction Concentrator in the *Genesys Info Mart 7.5 Deployment Guide*.
2. Install the Interaction Concentrator 7.5 applications that you configured in Step 1. The Interaction Concentrator installation will require you to install other Genesys 7.5 software—for example, Framework T-Server and Outbound Contact.

   For information about deploying Interaction Concentrator, see the *Interaction 7.5 Deployment Guide* and the *Genesys Migration Guide*.
3. For each IDB from which Genesys Info Mart will extract Voice or Multimedia details (`role` is `gcc` or `gls`), run the `make_icon_indexes_for_gim.sql` script.

4. Modify the sample `ccon_adata_spec.xml` file, which is included in the Genesys Info Mart installation package, to define the mappings between key-value pairs that are stored in the IDB tables and the Info Mart database. See the section about customizing your `ccon_adata_spec` file in the *Genesys Info Mart 7.5 Deployment Guide.*

   Note: This step must be repeated for each Interaction Concentrator that is recording Voice or Multimedia details (`role` is `gcc`).

5. If you are using Interaction Concentrator 7.2 to collect Outbound Contact data for Genesys Info Mart, upgrade your Interaction Concentrator to release 7.5. Make sure to perform this upgrade at a time when there are no active campaign sessions in progress.
6. Start your Interaction Concentrator 7.5 application(s).

   Note: It is important to start Interaction Concentrator(s) 7.5 at this point in the migration, in order to begin collecting contact center information. This will ensure that no information is missed during the transition between Call Concentrator and Interaction Concentrator 7.5. Make a note of when you start the Interaction Concentrator 7.5 application(s). (This date will be needed in Step 30).

7. Create a new database schema for the Merge Staging Area if you intend to have Genesys Info Mart process voice details from multiple Interaction Concentrator IDBs. To do this, run the Interaction Concentrator IDB initialization scripts against the Staging Area database. For instructions on how to run the scripts, see the *Interaction Concentrator 7.5 Deployment Guide.*
8. Create a new `Genesys Info Mart Application` object in Genesys Configuration Manager using the Genesys Info Mart 7.5 application template. See the chapter about configuring the Genesys Info Mart application in the *Genesys Info Mart 7.5 Deployment Guide*.
9. Configure your `Genesys Info Mart Application` object. For more information about the configuration options, see the section about configuring Genesys Info Mart options in the *Genesys Info Mart 7.5 Deployment Guide.*
10. Configure the scheduling of the Genesys Info Mart 7.5 ETL jobs. See Step 10 on page 1055, and the section about data transformation in the *Genesys Info Mart 7.5 Operations Guide.* To prevent the ETL jobs from running until later in the migration process, set the `run-scheduler` option to `FALSE`.

11. Create and configure JDBC Database Access Points (DAPs) to access the Staging Area, Info Mart, and Interaction Concentrator databases. You will also need to create and configure JDBC DAPs for any Stat Server database from which Genesys Info Mart will be extracting voice resource data.

    For information about configuring DAPs and DAP options, see the chapter about configuring DAPs for Genesys Info Mart in the *Genesys Info Mart 7.5 Deployment Guide.* Refer also to the database connection parameters that you noted in the appropriate section of the Installation Checklist in the *Genesys Info Mart 7.5 Deployment Guide.*

12. Create a non-JDBC DAP to access the Staging Area database from the Genesys Info Mart Administration Console. See the section about configuring a non-JDBC DAP in the *Genesys Info Mart 7.5 Deployment Guide.*

13. Perform any additional configuration for any DAPs created in Step 11 that are associated with an IDB in the HA pair (in Genesys Info Mart 7.5) that replaces the Call Concentrator HA pair (in Genesys Info Mart 7.2). For more information, see the section about configuring DAPs for high availability in the *Genesys Info Mart 7.5 Deployment Guide*.

14. On the `Connections` tab of your Genesys Info Mart application, add a connection to each of the `DAP Application` objects created in Step 11. For more information, see the section about configuring the Genesys Info Mart application in the *Genesys Info Mart 7.5 Deployment Guide.*

15. Allow the Genesys Info Mart 7.2 ETL jobs to finish a final ETL cycle.

16. Use the Solution Control Server (SCS) to stop Genesys Info Mart Server so that the 7.2 ETL jobs do not automatically start again. If you are using Data Integrator Web Administrator to schedule jobs, disable the job schedules.

    Note: It is very important that you allow Call Concentrator to continue running until the migration is complete, and until you are sure that new call details are being processed correctly from Interaction Concentrator by Genesys Info Mart 7.5.

17. Use the Data Integrator Web Administrator to manually run the following jobs, until all the extracted data has been transformed and loaded:
    a. `JOB_TransformGIM`
    b. `JOB_LoadRecent`
    c. `JOB_LoadGIM`

    Note: You can use the `ADMIN_LOAD_HISTORY` view to help determine when all of the data has been loaded by making sure that for all fact tables the `row_count_add` and `row_count_update` columns are `0`.

Back Up Staging Area and Info Mart Databases

18. Back up the Staging Area and Info Mart databases. The Info Mart database can be restored into a new schema and used for reporting purposes during the remainder of the migration process or during your verification of successful migration.

19. Upgrade your Stat Server(s) to release 7.1.000.10 (or later), if your Stat Server release is earlier than 7.1.000.10. Make sure that the `status-table-update-end-time-at-end-only` configuration option is set to `TRUE` in the `statserver` section of the `Stat Server Application` object(s).

20. Install a version of Java 1.5 JDK that supports the 2007 changes to U.S. daylight saving time. For more information, see the section about software requirements in the *Genesys Info Mart 7.5 Deployment Guide*.

21. On the Genesys Info Mart Server:

    a. Install the appropriate JDBC driver for your RDBMS, which corresponds to the database type of the IDB, Stat Server, Staging Area, Merge Staging Area, and Info Mart databases.

    Note: Genesys Info Mart 7.5 uses JDBC drivers that are installed on the Job Server to communicate with the data source and Info Mart databases.

    b. Make the JDBC driver available for use by Genesys Info Mart by including it in the `CLASSPATH` environment variable. For more information, see the section about installing JDBC drivers in the *Genesys Info Mart 7.5 Deployment Guide*.

22. Run the SQL script to update the Staging Area database schema.

    Notes:

    - Make sure that you back up your 7.2 Staging Area database before you run the migration script. This step can take a long time, depending on the amount of data in the database.
    - It is very important that you run the migration scripts against the original 7.2 Staging Area database and not against the backup one.
    - Also make sure that you turn on database session logging, so that if the script fails before it is finished, it will be easy for you to determine which statements have been completed successfully; then, you can eliminate these from the script before you restart it.

    From the Genesys Info Mart CD-ROM:

    a. Navigate to the `genesys_info_mart\db_scripts` subdirectory.
    b. Navigate to the `unix` or `windows` subdirectory corresponding to the operating system on which you will be running the database scripts.
    c. Navigate to the `sql_scripts` subdirectory.

d. Navigate to the RDBMS-specific directory that corresponds to your Staging Area database type (`db2`, `mssql`, or `oracle`).

e. Run: `migrate_gim_staging_area.sql`.

23. Run the SQL script to load the Staging Area database with metadata used by the jobs that perform aggregation (`JOB_LoadRecent` and `JOB_AggregateGIM`).

From the Genesys Info Mart CD-ROM:

a. Navigate to the `genesys_info_mart\db_scripts` subdirectory.

b. Navigate to the `unix` or `windows` subdirectory that corresponds to the operating system on which you will be running the database scripts.

c. Navigate to the `sql_scripts` subdirectory.

d. Navigate to the RDBMS-specific directory that corresponds to your Staging Area database type (`db2`, `mssql`, or `oracle`).

e. Run: `load_gim_staging_area.sql`.

Note: The SQL scripts do not qualify database objects according to their schema or owner. When you run the SQL scripts, make sure that you use the ID of the schema or owner to log in to the database. You noted this information in the appropriate section of the installation checklist in the *Genesys Info Mart 7.5 Deployment Guide.*

24. Run the SQL script to update the Info Mart database schema.

Notes:

- Make sure that you back up your 7.2 Info Mart database before you run the migration script. This step can take a long time, depending on the amount of data in the database.
- It is very important that you run the migration scripts against the original 7.2 Info Mart database and not against the backup one.
- Also make sure that you turn on database session logging, so that if the script fails before it is finished, it will be easy for you to determine which statements have completed successfully; then, you can eliminate these from the script before you restart it.

From the Genesys Info Mart CD-ROM:

a. Navigate to the `genesys_info_mart\db_scripts` subdirectory.

b. Navigate to the `unix` or `windows` subdirectory corresponding to the operating system on which you will be running the database scripts.

c. Navigate to the `sql_scripts` subdirectory.

d. Navigate to the RDBMS-specific directory that corresponds to your Info Mart database type (`db2`, `mssql`, or `oracle`).

e. Run `migrate_gim.sql`.

Notes:

- The SQL script does not specify any particular logical or physical storage—for example, table spaces and partitions. Review and, if necessary, modify the SQL script, to make sure that it is suitable for your deployment.
- See also the note about schemas and owners under Step 23.

25. Run the Genesys Info Mart 7.5 `make_gim_view.sql` and `make_gim_tenant_view.sql` scripts, to re-create the read-only views and the tenant-specific read-only views on the Info Mart database. Specify parameters for the owner ID and views owner ID.

    These `.sql` scripts are included on the Genesys Info Mart 7.5 CD-ROM in the same subdirectories as the migration scripts that were run in Steps 22 and 24.

26. Re-create any custom database objects or permissions that become lost or invalidated during the migration process. (You identified these objects and permissions in "Pre-Migration Procedure" on page 1056.)

27. Install the Genesys info Mart 7.5 application:
    a. Run the installation program to copy files to the installation directory.
    b. Run the Configuration Checker program to validate your configuration option values.

    See the chapters about installing Genesys Info Mart components and post-installation activities in the *Genesys Info Mart 7.5 Deployment Guide*.

28. Install the Genesys Info Mart 7.5 Administration Console on the same host as your Genesys Configuration Manager.

    The Genesys Info Mart Administration Console is a graphical user interface (GUI) that enables the monitoring and real-time administration of some aspects of the Genesys Info Mart ETL jobs. It is accessed through the Genesys Info Mart application in Configuration Manager. See the section about installing the Genesys Info Mart Administration Console in the *Genesys Info Mart 7.5 Deployment Guide*.

Note: The Genesys Info Mart Administration Console requires a non-JDBC DAP in order to access the Staging Area database. See Step 12 on page 1058.

29. Run the Genesys Info Mart 7.5 ETL jobs one-by-one. Use the Genesys Info Mart Administration Console to run them for the first time, rather than scheduling them to run. For complete instructions see the section about executing and scheduling ETL jobs in the *Genesys Info Mart 7.5* Operations Guide.

30. Run the `mark_duplicate_gim_facts.sql` script against the Info Mart database. This will set the `purge_flag` to `1` for duplicate facts that were recorded when Interaction Concentrator and Call Concentrator or Stat Server processed the same information during a period of time in the migration process. `JOB_MaintainGIM` will then physically delete these marked rows from the Info Mart database the next time it is run if the value of the `purge-action-is-delete` configuration option is set to `TRUE`.

    Note: This script requires that you input the date on which you started Interaction Concentrator 7.5 (see Step 6).

31. After the successful initial run of the Genesys Info Mart 7.5 ETL jobs, set the `run-scheduler` option to `TRUE` to enable the Genesys Info Mart Server to schedule the jobs. See the section about using Genesys Info Mart Server to launch ETL jobs in the *Genesys Info Mart 7.5 Operations Guide*.
32. When you are satisfied that Genesys Info Mart 7.5 is working properly:
    a. Delete the Genesys Info Mart 7.2 `Application` object from Configuration Manager.
    b. Uninstall the Genesys Info Mart 7.2 application.
    c. Use your RDBMS database-specific tool to delete the Genesys Info Mart 7.2 local repository.
    d. Uninstall Data Integrator on any host on which you ran Data Integrator Designer or Data Integrator Job Server.

Migrating Genesys Info Mart from 7.0.2 to 7.5.x

This section describes the steps required to migrate Genesys Info Mart and supporting software from release 7.0.2 to release 7.5.x.

Migrating Genesys Info Mart from release 7.0.2 to release 7.5.x requires a two-step migration process:

1. Migrate Genesys Info Mart from release 7.0.2 to 7.2.x (see “Migrating Genesys Info Mart from 7.0.2 to 7.2.x” on page 1063).
2. Migrate Genesys Info Mart from release 7.2.x to 7.5.x (see “Migrating Genesys Info Mart from 7.2.x to 7.5.x” on page 1054).

Migrating Genesys Info Mart from 7.0.2 to 7.2.x

This section describes the steps required to migrate Genesys Info Mart and supporting software from release 7.0.2 to release 7.2.x.

Migration Planning

1. Review the list of new features in Genesys Info Mart 7.2 (see "Content Changes in Genesys Info Mart 7.2" on page 999), and determine which feature you want to implement.
2. Perform any necessary operating system upgrades. For information about the operating system versions that Genesys Info Mart 7.2 supports, see the *Genesys Supported Operating Environment Reference Guide*.
3. Perform any necessary relational database management system (RDBMS) client and server upgrades. For information about the RDBMS versions Genesys Info Mart 7.2 supports, see the *Genesys Supported Operating Environment Reference Guide*.
4. Review the *Genesys Info Mart 7.2 Release Advisory* for information about known Data Integrator, operating system, and RDBMS issues, and potential ways to work around these issues.
5. Review the *Genesys Info Mart 7.2 Release Notes* for important information about this Genesys Info Mart version.
6. Genesys Info Mart requires a version of Java 1.5 JDK that supports the 2007 changes to the U.S. daylight saving time. (Consult your Java vendor for details.) For more information, see the section about software requirements in the *Genesys Info Mart Deployment Guide*.
7. Determine whether a Java Database Connectivity (JDBC) driver is installed for your RDBMS. Genesys Info Mart 7.2 requires you to install a JDBC driver for your RDBMS. For more information about supported JDBC drivers, and how to install and configure them for Genesys Info Mart, see the section about JDBC drivers in the *Genesys Info Mart Deployment Guide*.
8. If you want to use Genesys Solution Control to start and stop the Genesys Info Mart Server, install Local Control Agent (LCA) 7.x on the host where you plan to install Genesys Info Mart.
9. Upgrade your Configuration Server to release 7.2.000.06 (or later) if you intend to have Genesys Info Mart populate the membership of agents among skill expression-based virtual agent groups in the Resource Group Fact table.

10. Consider upgrading Call Concentrator(s) to the latest Genesys 7 maintenance release. Although this is an optional task, upgrading to the latest maintenance release will enable Genesys Info Mart to produce higher-quality data.
11. Upgrade Stat Server(s) to release 7.2 if you intend to have Genesys Info Mart populate agent DN work modes and reason codes in its Resource State Reason Fact table. This release also supplies the `status-table-update-end-time-at-end-only` configuration option (initially available in Stat Server 7.1.000.10) that is required if you intend to have Genesys Info Mart perform intraday loading. This option allows you to set lower values for Genesys Info Mart's `etl-frequency` and `data-source-lag` options, resulting in decreased data latency.
12. Install Interaction Concentrator 7.2 if you intend to have Genesys Info Mart populate Outbound Contact-related fact and dimension tables. Interaction Concentrator requires you to install otherGenesys 7.2 software, such as Framework T-Server and Outbound Contact. For information about deploying Interaction Concentrator, see the *Interaction Concentrator Deployment Guide*.

    For information about configuring the Interaction Concentrator application, see the sections about the Interaction Concentrator application and Genesys Info Mart and Outbound Contact record field data in the *Genesys Info Mart Deployment Guide.* Genesys Info Mart also relies on a new key-value pair attached to voice interactions by Outbound Contact Server 7.2 (or your agent desktop for Preview dialing campaigns). See "Modifying Your Call Concentrator Database" on page 1073 for more information.
13. Review the Staging Area database's data-size estimates in the *Genesys Hardware Sizing Guide* for Genesys Info Mart 7.2. The 7.2 release stores more data than the 7.0.2 release; therefore, if necessary, allocate more physical database storage.
14. Review the data-size estimates for the Info Mart 7.2 database in the *Genesys Hardware Sizing Guide*. The 7.2 release stores more data than version 7.0.2 release; therefore, if necessary, allocate more physical database storage.
15. Genesys Info Mart 7.2 ships with Business Objects Data Integrator 11.0.2. You will be guided through the process to upgrade from Data Integrator 6.5.1 in "Migration Procedure" on page 1066.
16. The extraction, transformation, and loading (ETL) jobs that ship with Genesys Info Mart 7.2 differ from those in release 7.0.2. Genesys Info Mart 7.2 also uses a new job scheduler—Genesys Info Mart Server. To plan an ETL job schedule that is suitable for your environment, review the descriptions of the Genesys Info Mart 7.2 ETL jobs—and how to schedule them— in the section about data transformation in the *Genesys Info Mart Operations Guide*.

17. Plan a time when you can complete the migration. Several of the steps can take a significant amount of time to complete, which might affect the availability of Info Mart data.

Pre-Migration Procedure

1. Allow the Genesys Info Mart 7.0.2 ETL jobs to finish their final extract, transform, and load. Once the transform and load jobs have finished, do not allow another extract to run. Extracted data in the Staging Area database that has not been transformed and loaded into the Info Mart database will be lost when you install Genesys Info Mart 7.2. Use the Data Integrator Web Administrator to deactivate the ETL job schedules, so that the 7.0.2 ETL jobs do not run again. To deactivate the schedules:
   a. Log in to the Data Integrator Web Administrator.
   b. In the navigation tree, click `Batch` to display the list of Data Integrator local repositories.
   c. In the navigation tree, click the local repository name to display the ETL job status.
   d. Click the `Configuration` tab.
   e. For each job, click `Schedules`, select the `Select All` check box to select all schedules, and click the `Deactivate` button to deactivate the selected schedules.

      For more information on scheduling jobs, refer to the section about scheduling jobs in the *Data Integrator Administrator Guide*.
2. Create a new database schema for the Data Integrator 11.0.2 local repository. This repository will store the Genesys Info Mart 7.2 ETL job metadata. For information about how to create this database, see the section about pre-installation tasks in the *Genesys Info Mart Deployment Guide*.

Warning! The Staging Area and Info Mart databases are critical resources. Make sure to back up your data to prevent any loss or corruption that might accidentally occur during the migration process.

Back Up Local Repository

3. Back up your Genesys Info Mart 7.0.2 Local Repository database.

Back Up 7.0.2 Staging Area Database

4. Back up your Genesys Info Mart 7.0.2 Staging Area database. This can take a significant amount of time and storage, depending on the amount of data that has accumulated in the Staging Area database.

Back Up 7.0.2 Info Mart Database

5. Back up your Genesys Info Mart 7.0.2 Info Mart database. This may take a significant amount of time and storage, depending on how much data has accumulated in the Info Mart database.

Back Up 7.0.2 SQL Scripts

6. Create backup copies of the Genesys Info Mart 7.0.2 deployment SQL scripts that you modified and ran when you deployed Genesys Info Mart 7.0.2. These SQL scripts perform the following tasks:
   a. Create or modify source Call Concentrator and Stat Server databases.
   b. Create the Call Concentrator EVREFEX extraction view.
   c. Create the target Staging Area and Info Mart databases.
   d. Create the Info Mart read-only views.

   The Genesys Info Mart 7.2 installation program overwrites these SQL scripts, and it does not preserve your modifications.

   To locate these SQL scripts, navigate to the Genesys Info Mart installation directory, and to its `sql_scripts` subdirectory. The SQL scripts are in the RDBMS-specific subdirectories (`db2`, `mssql`, and `Oracle`).
7. Identify any custom changes that you made to the Staging Area and Info Mart databases—for example, table spaces, partitions, additional indexes, views, or permissions. This includes the permissions or privileges that you granted to the users of the Staging Area and Info Mart databases, as described in the section about database privileges in the *Genesys Info Mart Deployment Guide*.

   The Genesys Info Mart SQL scripts that you will run to update these databases sometimes create new tables, instead of updating the old tables. You will need to re-create any custom database objects or permissions that become lost or invalidated during the update process.

Back Up Configuration Options

8. Create a backup copy of your Genesys Info Mart application's configuration options, using the following procedure:
   a. Log in to Genesys Configuration Manager.
   b. Click the `Options` tab of the `Genesys Info Mart Application` object.
   c. Click `Export to Configuration File`.
   d. Type a target file name, and then click `Save`.

Migration Procedure

1. Uninstall Data Integrator 6.5.1 on any hosts where you run Data Integrator Designer or Data Integrator Job Server:
   a. Record the names and port numbers of your existing Job Servers.
   b. Stop the Data Integrator services.
   c. Uninstall the Data Integrator Software.

   For detailed instructions, see the section about preparing to install Data Integrator in the *Data Integrator Getting Started Guide*.
2. Install Java 1.5 Java Development Kit (JDK). Genesys Info Mart requires a version of Java 1.5 JDK that supports the 2007 changes to the U.S. daylight saving time. (Consult your Java vendor for details.) For more information, see the section about software requirements in the *Genesys Info Mart Deployment Guide*.

3. Install Data Integrator 11.0.2. For information about how to install Data Integrator, see the section about installing Data Integrator in the *Genesys Info Mart Deployment Guide*. When installing, note the following:
   a. If you run Data Integrator Designer and the Data Integrator Job Server on different host systems, be sure to install Data Integrator 11.0.2 on both of them.
   b. Make sure that you create a new local repository, using the database connection information for the new database schema that you created in Step 2, on page 1065. Do not migrate the existing Data Integrator 6.5.1 local repository that you created for Genesys Info Mart 7.0.2.
   c. You may wish to configure the Job Servers to use the same names and port numbers that were used by Data Integrator 6.5.1.
   d. Make sure that you edit your Job Server configuration to add the new local repository and that you make it the default repository for that Job Server.
4. Edit Data Integrator's configuration file on the Job Server:
   a. Set the `SkipValidationAtStartup` option to `1`, in order to decrease the time it takes to load and optimize ETL jobs.
   b. Set the `Global_DOP` option to the value appropriate for your job server hardware, in order to decrease the time that it takes to run ETL jobs.
   c. Set the `TREAT_CATCH_EXCEPTION_AS` option to `ERROR`, so that Data Integrator Web Administrator displays a red indicator beside a failed ETL job.
   d. In section `[AL_Engine]` set the `Enable_Statistics` option to `FALSE`, so that Data Integrator does not store execution metadata in the local repository database. Storing this metadata can cause ETL jobs to run significantly slower.

   Note: For details about configuring these options, see the section about performance tuning in the *Genesys Info Mart Deployment Guide*.

5. On the Job Server:
   a. Install the appropriate JDBC driver for your RDBMS, which corresponds to the database type of the Interaction Concentrator, Staging Area, and Info Mart databases.

   Note: Genesys Info Mart 7.2 uses JDBC drivers that are installed on the Job Server to communicate with the Interaction Concentrator, Staging Area, and Info Mart databases. See the section about JDBC drivers in the *Genesys Info Mart Deployment Guide*.

   b. Make the JDBC driver available for use by Genesys Info Mart.

6. If you are using Genesys Configuration Server release 7.2.000.06 (or later), and you intend to have Genesys Info Mart populate the membership of agents among skill expression-based virtual agent groups in its Resource Group Fact table:
   a. Perform the following in the 'hca' section of the Configuration Server application:
      - Set the schema option to Journal.
      - If the record-vag option is present, set it to TRUE.
   b. Run the Configuration Server once with the -hca and -u mm/dd/yyyy command-line options to update the HCA tables with the current virtual agent group membership information.

      Before the Configuration Server updates the configuration history tables, it prompts you with a message similar to the following:

      ```
      Attention! You're about to initiate a task [Update] which
      will change the content of the HCA tables. Press [Enter] to
      proceed or [Ctrl+C] to cancel.
      ```

      If you do not see this message, the Configuration Server's log-buffering option is set to ON, which prevents the message from being displayed. Press [Enter] to proceed or [Ctrl+C] to cancel.

Note: The objects added to the HCA tables by the Update command are populated in the configuration history as having been created on the date you specified with the -u mm/dd/yyyy option. You must choose a date that is earlier than the earliest interaction and resource record you will be extracting from all Call Concentrator, Interaction Concentrator, and Stat Server databases. The earliest date you can specify is January 5, 2000. Genesys Info Mart cannot transform and load data that occurred before that date.

Warning! It is very important that you update the HCA tables by using the -u mm/dd/yyyy Configuration Server command-line option, not the -s mm/dd/yyyy option. The -s mm/dd/yyyy option should never be used again once the HCA tables have been initially populated at deployment time.

7. Modify your Call Concentrator database(s) to enable Genesys Info Mart to extract a new attached data KVP that identifies Outbound Contact Server-related calls. See "Modifying Your Call Concentrator Database" on page 1073.

Note: You must perform this step, even if your contact center does not use Outbound Contact.

8. If you are using Stat Server 7.1.000.10 (or later) and you intend to have Genesys Info Mart perform intraday loading, set the Stat Server `status-table-update-end-time-at-end-only` configuration option to `TRUE` in the `statserver` section of the `Stat Server Application` object.
9. If you are using Stat Server 7.2 you and intend to have Genesys Info Mart populate the Resource State Reason Fact table, set the Stat Server `voice-reasons-table configuration` option to `TRUE` in the `statserver` section of the `Stat Server Application` object.

   Note: Do not set this option to `TRUE` while your Stat Server is running, unless you have already run the SQL script that creates the `VOICE_REASONS` table in the Stat Server database. See Step 17 on page 1070.

10. If you have installed Interaction Concentrator and will be using Genesys Info Mart to populate Outbound Contact data, see the section about the Interaction Concentrator database in the *Genesys Info Mart Deployment Guide* for information on configuring the Interaction Concentrator application to provide all the data needed by Genesys Info Mart.

    In addition, if you intend to have Genesys Info Mart populate non-mandatory Outbound Contact `record` fields in the Info Mart database, or if you intend to use the value of non-mandatory record fields to indicate `Right Party Contacted` or `Conversion`, you will need to perform configuration of the `Field` objects. For more information, see the section about configuring the mapping of Outbound Contact record fields in the *Genesys Info Mart Deployment Guide*.
11. Using Genesys Configuration Manager, update the configuration options and parameters in your `Genesys Info Mart Application` object. For a complete list of the new and changed configuration options, see "Configuration Option Changes in Genesys Info Mart 7.2" on page 1013.
12. Configure the scheduling of the ETL jobs. In Genesys Info Mart 7.2, ETL job scheduling is now performed by the Genesys Info Mart Server component instead of the Data Integrator Web Administrator. Options in the new `schedule` section of the Genesys Info Mart application specify the scheduling used to launch the ETL jobs.

    See Step 16 on page 1064, and the section about using Genesys Info Mart Server to launch ETL jobs in the *Genesys Info Mart Operations Guide*.
13. Create Data Access Points (DAPs) to access the Staging Area, Info Mart, and Interaction Concentrator databases. You will always need to create DAPs for the Staging Area and Info Mart databases. Create DAPs for any Interaction Concentrator database from which Genesys Info Mart will extract Outbound Contact data. For information about configuring DAPs and DAP options, see the section about configuring Genesys Info Mart DAPs in the *Genesys Info Mart Deployment Guide*.

Refer also to the database connection parameters needed to configure each DAP that you noted in the appropriate section of the Installation Checklist in the *Genesys Info Mart Deployment Guide*.

14. On each of the `DAP Application` objects that you created in Step 13, add a connection to your Genesys Info Mart application. For more information, see the section about configuring the Genesys Info Mart application in the *Genesys Info Mart Deployment Guide*.
15. Uninstall the Genesys Info Mart 7.0.2 application:
    a. On a Windows operating system: From the Windows `Start` menu, go to `Settings` >`Control Panel` > `Add/Remove Programs`.
    b. On a UNIX operating system: When you run the new installation script, select the appropriate action (for example, `Overwrite only the files contained in this package`).
16. Install the Genesys Info Mart 7.2 application:
    a. Run the installation program to copy files to the installation directory.
    b. Run the `Check Configuration` program to validate your configuration option and DAP configuration values.
    c. Import the ETL job metadata into the newly created local repository.

    For more information, see the chapter about installing Genesys Info Mart in the *Genesys Info Mart Deployment Guide*.
17. Run the SQL script to update the Stat Server database schema:

> **Note:** This script creates the `VOICE_REASONS` table, which must now exist in order for `JOB_ExtractSS` to run. You must run this SQL script, even if you do not intend to have Genesys Info Mart populate the Resource State Reason Fact table.

    a. Navigate to the Genesys Info Mart installation directory.
    b. Navigate to the `sql_scripts` subdirectory.
    c. Navigate to the RDBMS-specific directory that corresponds to your Staging Area database type (`db2`, `mssql`, or `oracle`).
    d. Run:
       - `voice_reasons_db2.sql` (for db2)
       - `voice_reasons_mssql.sql` (for mssql)
       - `voice_reasons_oracle.sql` (for oracle)

> **Note:** The SQL scripts do not qualify database objects according to their schema or owner. When you run the SQL scripts, make sure that you use the ID of the schema or owner to log in to the database. You noted this information in the appropriate section of the Installation Checklist in the Genesys Info Mart Deployment Guide.

18. Run the SQL script to update the Staging Area database schema:

Notes:

- Make sure that you back up your 7.0.2 Staging Area database before you run the migration script. This can take a long time, depending on the amount of data in the database.
- Also make sure that you turn on database session logging, so that if the script fails before it is finished, it will be easy for you to determine which statements completed successfully, and you can eliminate these from the script before you restart it.

a. Navigate to the Genesys Info Mart installation directory.
b. Navigate to the `sql_scripts` subdirectory.
c. Navigate to the RDBMS-specific directory for your Staging Area database type (`db2`, `mssql`, or `oracle`).
d. Run `migrate_gim_staging_area.sql`.

See the note about schemas and owners under Step 17.

19. Run the SQL script to load the Staging Area database with metadata used by the jobs that perform aggregation (`JOB_LoadRecent` and `JOB_AggregateGIM`):

a. Navigate to the Genesys Info Mart installation directory.
b. Navigate to the `sql_scripts` subdirectory.
c. Navigate to the RDBMS-specific directory for your Staging Area database type (`db2`, `mssql`, or `oracle`).
d. Run `load_gim_staging_area.sql`.

See the note about schemas and owners under Step 17.

20. Run the SQL script to update the Info Mart database schema:

Notes:

- Make sure that you back up your 7.0.2 Info Mart database before you run the migration script. This step may take a long time, depending on the amount of data in the database.
- Also make sure that you turn on database session logging, so that if the script fails before it is finished, it will be easy for you to determine which statements completed successfully, and you can eliminate these from the script before you restart it.

a. Navigate to the Genesys Info Mart installation directory.
b. Navigate to the `sql_scripts` subdirectory.
c. Navigate to the RDBMS-specific directory for your Staging Area database type (`db2`, `mssql`, or `oracle`).
d. Run `migrate_gim.sql`.

Notes:

- The SQL script does not specify any particular logical or physical storage—for example, table spaces and partitions. Review and, if necessary, modify the SQL script to make sure that it is suitable for your deployment.
- A column called `MEDIA_RESOURCE_KEY` was added to the `INTERACTION_FACT`, `INTERACTION_SEGMENT_FACT`, and `RESOURCE_SESSION_FACT` tables to represent the Extension or ACD Position associated with the fact. For existing facts in these tables, the migration script will populate the `MEDIA_RESOURCE_KEY` with a value representing the "Unknown" resource for the tenant since there is no way to determine the correct `MEDIA_RESOURCE_KEY` once the data has already been populated in the Info Mart database.
- See also the note about schemas and owners under Step 17 on page 1070.

---

21. Run the Genesys Info Mart 7.2 `make_gim_view.sql` and `make_gim_tenant_view.sql` scripts to re-create the read-only views and the tenant-specific read-only views on the Info Mart database. You will have to specify parameters for the owner ID and views owner ID, as you did when you created these views for Genesys Info Mart 7.0.2.

These SQL scripts are provided with Genesys Info Mart. For more information, see the chapter about Genesys Info Mart SQL scripts in the *Genesys Info Mart Deployment Guide*.

22. Re-create any custom database objects or permissions that become lost or invalidated during the update process. (You identified these objects and permissions in Step 7 on page 1066.)

23. Create Datastore Configurations for each of your datastores in the newly created local repository.

You noted the Datastore connection parameters needed to configure each Datastore Configuration in the appropriate section of the Installation Checklists in the *Genesys Info Mart Deployment Guide*.

For information about creating Datastore Configurations, see the section about Data Integrator databases and system configuration in the *Genesys Info Mart Operations Guide.*

24. Create System Configurations for the extraction, transformation, and loading (ETL) jobs in the newly created local repository. The ETL jobs that ship with Genesys Info Mart 7.2 differ from those in release 7.0.2.

To determine the System Configurations that you must create, review the information in the section about Data Integrator database and system configuration in the *Genesys Info Mart Operations Guide.*

For information about configuring the System Configurations, see the section about creating system configurations in the *Genesys Info Mart Operations Guide.* Pay particular attention to the names that must be used

for the System Configurations, and their relationship to the option names for the Call Concentrator, Stat Server, and Interaction Concentrator databases that were specified in the Genesys Info Mart application configuration.

25. Log in to the Data Integrator Web Administrator, and add access to the newly created local repository that contains the Genesys Info Mart 7.2 ETL job metadata.

    For information on adding connections to local repositories, see the section on connecting to the local repository in the *Genesys Info Mart Operations Guide*.

26. Run the Genesys Info Mart 7.2 ETL jobs one-by-one the first time, instead of scheduling them to run. For complete instructions, see the section on using the Web Administrator to run ETL jobs in the *Genesys Info Mart Operations Guide.*

    Note: Make sure that you run `JOB_InitializeGIM` first. This job stores new fixed dimension information in the Staging Area and Info Mart databases.

27. After the successful initial run of the Genesys Info Mart 7.2 ETL jobs, enable the Genesys Info Mart Server to schedule the jobs. For more information, see the section about using Genesys Info Mart Server to launch ETL jobs in the *Genesys Info Mart Operations Guide*.
28. If you intend to use the Info Mart aggregate tables, and want to populate aggregates for your existing facts, make sure to run `JOB_AggregateGIM` and specify the aggregation time period. For more information, see the section about the `JOB_AggregateGIM` in the *Genesys Info Mart Operations Guide*.
29. When you are satisfied that Genesys Info Mart 7.2 is working properly, use your RDBMS database-specific tool to delete the Genesys Info Mart 7.0.2 local repository.

Modifying Your Call Concentrator Database

Genesys Info Mart 7.2 functionality relies on a new key-value pair, `GSW_CALL_ATTEMPT_GUID`, attached by Outbound Contact 7.2 (or your agent desktop application for Preview dialing campaigns). You must perform the steps in this section, even if your contact center does not use Outbound Contact.

If any of the following is true for your deployment, perform the steps in "Adding a Default Call Attempt GUID" (below).

- Your contact center does not use Outbound Contact.

- Your contact center uses Outbound Contact; you want Genesys Info Mart to populate Outbound Contact-related calls in the interaction fact tables, but you do not want to use Info Mart's Interaction Type dimension to distinguish them from normal outbound calls.

If your contact center uses Outbound Contact 7.2 and any of the following is true for your deployment, perform the steps in "Adding Call Attempt GUID to Call Concentrator" on page 1074.

- You want Genesys Info Mart to populate Outbound Contact data (extracted from Interaction Concentrator), including contact attempt facts.
- You want Genesys Info Mart to populate Outbound Contact-related calls (extracted from Call Concentrator) in the interaction fact tables, and you want to use Info Mart's Interaction Type dimension to distinguish them from normal outbound calls.
- You want to prevent Genesys Info Mart from loading Outbound Contact-related calls (extracted from Call Concentrator) in the interaction fact tables because of data quality issues that exist for ASM mode and switch-dialer based campaigns.

Adding a Default Call Attempt GUID

If your Call Concentrator does not store `GSW_CALL_ATTEMPT_GUID` in its `EVREFEX` table, you must provide a default `NULL` Call Attempt GUID (global unique identifier) for Genesys Info Mart to extract.

Notes:

- Make sure that you repeat the step in this section for all your other Call Concentrator databases.
- Genesys recommends that you make the change described in this section to the copy of `make_evrefex_view.sql` you ran when you installed Genesys Info Mart 7.0.2 so that the SQL script is consistent with your Call Concentrator database.

If your Call Concentrator database uses Oracle or Microsoft SQL Server, use your RDBMS tools to add the following mapping to the end of `EVREFEX_VIEW`: `NULL as GSW_CALL_ATTEMPT_GUID`

If your Call Concentrator database uses DB2, use your RDBMS tools to add the following mapping to the end of `EVREFEX_VIEW`:
`CAST(NULL AS VARCHAR(64)) AS GSW_CALL_ATTEMPT_GUID`

Adding Call Attempt GUID to Call Concentrator

To store the Call Attempt GUID in Call Concentrator's database, perform the steps in this section.

Note: Make sure that you repeat the steps in this section for all your Call Concentrator applications and databases.

Genesys recommends that you make the changes described in this section to the copy of `make_cdr_primary_keys.sql` and the copy of `make_evrefex_view.sql` so that the SQL scripts are consistent with your Call Concentrator database. You ran these scripts initially when you installed Genesys Info Mart 7.0.2.

1. Configure Call Concentrator to store the Call Attempt GUID. Using Configuration Manager, add the following to the `EventData` configuration option on your `Call Concentrator Application` object:

   ```
   ,char,GSW_CALL_ATTEMPT_GUID
   ```

   If your Call Concentrator configuration has more than one `EventData` option, add it to the one that contains the mappings for the columns that are stored at the end of the `EVREFEX` row.

2. Add the Call Attempt GUID to Call Concentrator's `EVREFEX_TABLE`. If your Call Concentrator database uses Oracle, use your RDBMS tools to add the following column to the end of the table named `EVREFEX_TABLE`:

   ```
   GSW_CALL_ATTEMPT_GUID VARCHAR2(64)
   ```

   If your Call Concentrator database uses MS SQL Server or DB2, use your RDBMS tools to add the following to the end of the table named `EVREFEX_TABLE`:

   ```
   GSW_CALL_ATTEMPT_GUID VARCHAR(64)
   ```

3. Add the Call Attempt GUID to the trigger `TIB_EVREFEX_TABLE`, defined on `EVREFEX_TABLE`, if your Call Concentrator database uses MS SQL Server. Use your RDBMS tools to add `GSW_CALL_ATTEMPT_GUID` to the end of the list of columns in both the `insert into EVREFEX_TABLE` and `select from inserted` statements in the trigger:

   Note: Make sure that `GSW_CALL_ATTEMPT_GUID` appears in the same order in the column list for both statements in the trigger.

4. Add the Call Attempt GUID to Call Concentrator's `EVREFEX` insertion view. Use your RDBMS tools to add `GSW_CALL_ATTEMPT_GUID` to the end of the list of columns selected in the view named `EVREFEX`.

5. Add the Call Attempt GUID to Call Concentrator's `EVREFEX_VIEW` extraction view. Use your RDBMS tools to add the following column to the end of the list of columns selected in the view named `EVREFEX_VIEW`:

   ```
   GSW_CALL_ATTEMPT_GUID as GSW_CALL_ATTEMPT_GUID.
   ```

Configuration Changes

To configure Genesys Info Mart 7.2, do the following:

1. Add new mandatory sections and options to the Genesys Info Mart application configuration.

   Refer to the "Content Changes in Genesys Info Mart 7.2" on page 999 and add any new sections or options, designated in the table with a change type of "Section Added" or "Option Added". For information about configuring options, see the section about customizing your configuration in the *Genesys Info Mart Deployment Guide.*

2. Verify that the option names in the ccon-data-sources and stat-server-data-sources sections match the name of your system configurations.

   "Content Changes in Genesys Info Mart 7.2" on page 999 of this document summarizes the changes to the Genesys Info Mart ETL application's configuration. For details about the configuring the new options, see the chapter about customizing your configuration in the *Genesys Info Mart Deployment Guide*.

Verifying Option Dependencies

In order for the Genesys Info Mart Server to properly launch the JOB_ExtractCCON and JOB_ExtractSS ETL jobs, do the following:

1. Verify that each option name in the ccon-data-sources section matches the Data Integrator system configuration name that will be used when JOB_ExtractCCON is run against that data source. Either the option name or the system configuration name can be changed to ensure compliance with this dependency.
2. Verify that each option name in the stat-server-data-sources section matches the Data Integrator system configuration name that will be used when JOB_ExtractSS is run against that data source. Either the option name or the system configuration name can be changed to ensure compliance with this dependency.

For more information, see the section about Data Integrator datastore and system configuration in the *Genesys Info Mart Operations Guide*.

Migrating Genesys Info Mart from 7.0.1 to 7.0.2

This section describes the steps that are required to migrate Genesys Info Mart and its supporting software from release 7.0.1 to release 7.0.2.

Note: Review all the steps before performing any of them. Make sure that you have the following resources available before you begin:

- *Genesys Info Mart 7.0.2 Deployment Guide*.
- *Genesys Info Mart 7.0.2 Operations Guide*.

- Business Objects Data Integrator 6.5.1 technical manuals. (You will install a new version of Data Integrator for Genesys Info Mart 7.0.2.)
- *Genesys Hardware Sizing Guide*—This document has been updated with the database size estimates for Genesys Info Mart 7.0.2.
- Genesys Info Mart installation checklists that you completed when you installed Genesys Info Mart 7.0.1. These checklists, which you printed from the *Genesys Info Mart Deployment Guide*, contain database connection information you will need in order to reconfigure the datastore and system profiles for your environment. Remember to update the checklists if you make any changes for release 7.0.2.

Migration Planning

1. Consider updating Call Concentrator(s) to the latest Genesys 7 maintenance release. Although this is an optional task, upgrading to the latest maintenance release will generally allow Info Mart to produce higher-quality data.
2. Consider updating Stat Server(s) to the latest Genesys 7 maintenance release. Although this is an optional task, upgrading to the latest maintenance release will generally allow Info Mart to produce higher-quality data.
3. Review the list of new features in Genesys Info Mart 7.0.2 (see "Content Changes in Genesys Info Mart 7.0.2" on page 1000), and determine which features you want to implement.
4. Review the Staging Area database's data-size estimates in the *Genesys Hardware Sizing Guide* for Genesys Info Mart 7.0.2. The 7.0.2 release stores more data than the 7.0.1 release; therefore, if necessary, allocate more physical database storage.
5. Review the data-size estimates for the Info Mart 7.0.2 database in the *Genesys Hardware Sizing Guide*. The 7.0.2 release stores more data than the 7.0.1 release; therefore, if necessary, allocate more physical database storage.
6. The extraction, transformation, and loading (ETL) jobs that ship with Genesys Info Mart 7.0.2 differ from those in release 7.0.1. To plan an ETL job schedule that is suitable for your environment, review the descriptions of the Genesys Info Mart 7.0.2 ETL jobs— and how to schedule them—in the section about data transformation in the *Genesys Info Mart Operations Guide.*
7. Plan a time when you can complete the update. Several steps can take a significant amount of time to complete, which might affect the availability of Info Mart data.

Pre-Migration Procedure

1. Allow the Genesys Info Mart 7.0.1 ETL jobs to finish their final extract, transform, and load. When the transform and load jobs have finished, do not allow another extract to run. Extracted data in the Staging Area database that has not been transformed and loaded into the Info Mart database will be lost when you install Genesys Info Mart 7.0.2. Use the Data Integrator Web Administrator to deactivate the ETL job schedules, so that the 7.0.1 ETL jobs do not run again. To deactivate the schedules:
   a. Log in to the Data Integrator Web Administrator.
   b. In the navigation tree, click `Batch` to display the list of Data Integrator local repositories.
   c. In the navigation tree, click the local repository name to display the ETL job status.
   d. Click the `Configuration` tab.
   e. For each job, click `Schedules`, select the `Select All` check box to select all schedules, and click the `Deactivate` button to deactivate the selected schedules.

      For more information, refer to the section about scheduling jobs in the *Data Integrator Administrator Guide.*
2. Create a new database schema for the Data Integrator 6.5.1 local repository. This repository will store the Genesys Info Mart 7.0.2 ETL job metadata. For information about how to create this database, see the section about installing Data Integrator in the *Genesys Info Mart Deployment Guide.*

Back Up 7.0.1 Local Repository

3. Back up your Genesys Info Mart 7.0.1 Local Repository database.

Back Up 7.0.1 Staging Area Database

4. Back up your Genesys Info Mart 7.0.1 Staging Area database. This can take a significant amount of time, depending on the amount of data that has accumulated in the Staging Area database.

Back Up 7.0.1 Info Mart Database

5. Back up your Genesys Info Mart 7.0.1 Info Mart database. This can take a significant amount of time, depending on the amount of data that has accumulated in the Info Mart database.

Back Up 7.0.1 SQL Scripts

6. Create backup copies of the Genesys Info Mart 7.0.1 deployment SQL scripts that you modified and ran when you deployed Genesys Info Mart 7.0.1. These SQL scripts perform the following tasks:
   - Create or modify source Call Concentrator and Stat Server databases.
   - Create the Call Concentrator `EVREFEX` extraction view.
   - Create the target Staging Area and Info Mart databases.
   - Create the Info Mart read-only views.

   The Genesys Info Mart 7.0.2 installation program overwrites these SQL scripts, and it does *not* preserve your modifications.

To locate these SQL scripts, navigate to the Genesys Info Mart installation directory, and to its `sql_scripts` subdirectory. The SQL scripts are in the RDBMS-specific subdirectories (`db2`, `mssql`, and `oracle`).

7. Identify any custom changes that you made to the Staging Area and Info Mart databases—for example, additional indexes, views, or permissions. This includes the permissions or privileges that you granted to the users of the Staging Area and Info Mart databases, as described in the section about database privileges in the *Genesys Info Mart Deployment Guide.*

   The Genesys Info Mart SQL scripts that you will run to update these databases sometimes create new tables, instead of updating the old tables. You will need to re-create any custom database objects or permissions that become lost or invalidated during the update process.

Back Up Configuration Options

8. Create a backup copy of your Genesys Info Mart application's configuration options:
   a. Log in to Genesys Configuration Manager.
   b. Click the `Options` tab of the `Genesys Info Mart Application` object.
   c. Click `Export to Configuration File`.
   d. Type a target file name, and then click `Save`.

Migration Procedure

1. Install Data Integrator 6.5.1 over 6.5.0. For information about how to install Data Integrator, see the section on installing Data Integrator in the *Genesys Info Mart Deployment Guide*. When installing, note the following:
   a. If you plan to run Data Integrator Designer and the Data Integrator Job Server on different host systems, be sure to update both of them to Data Integrator 6.5.1.
   b. Make sure that you create a new local repository, using the database connection information for the new database schema that you created in Step 2 on page 1078. Do *not* migrate the existing Data Integrator 6.5.0 local repository that you created for Genesys Info Mart 7.0.1.
   c. Configure a system locale for Data Integrator, as you did in Genesys Info Mart 7.0.1. This system locale, which is used by the Designer and Job Server, defaults to the locale set for the operating system. For more information on locales, see the section on locales and multi-byte functionality in the *Data Integrator Reference Guide*.

   Note: Data Integrator might not prompt you for the system locale information, since you already specified the locale when you installed Data Integrator 6.5.0 for Genesys Info Mart 7.0.1.

d. Make sure that you edit your Job Server configuration to add the new local repository and to make it the default repository for that Job Server.

2. Edit Data Integrator's configuration file on the Job Server:
   - Set the `SkipValidationAtStartup` option to `1`, in order to decrease the time it takes to load and optimize ETL jobs.
   - Set the `Global_DOP` option to the value appropriate for your job server hardware, in order to decrease the time that it takes to run ETL jobs.

   Note: For details about configuring these options, see the section about Data Integrator performance tuning in the *Genesys Info Mart Deployment Guide*.

3. Using Genesys Configuration Manager, update the configuration options and parameters in your `Genesys Info Mart Application` object.

   For a complete list of the new and changed configuration options, see "Configuration Option Changes from 7.0.1 and 7.0.2" on page 1018. Some options have been moved to allow tenants to better manage their own configuration options. These options are applicable to both single- and multi-tenant deployments.

4. Uninstall the Genesys Info Mart 7.0.1 application:
   - On a Windows operating system: From the Windows `Start` menu, go to `Settings > Control Panel > Add/Remove Programs`.
   - On a UNIX operating system: When you run the new installation script, select the appropriate action (for example, `Overwrite only the files contained in this package`).

5. Install the Genesys Info Mart 7.0.2 application:
   a. Run the installation program to copy files to the installation directory.
   b. Run the `Check Configuration` program to validate your configuration option values.
   c. Import the ETL job, and localization metadata in to the newly created local repository.

   Follow the instructions in the chapter about installing Genesys Info Mart in the *Genesys Info Mart Deployment Guide.*

6. Run the SQL script to update the Staging Area database schema:
   a. Navigate to the Genesys Info Mart installation directory.
   b. Navigate to the `sql_scripts` subdirectory.
   c. Navigate to the RDBMS-specific directory for your Staging Area database type (`db2`, `mssql`, or `oracle`).

d. Run `migrate_gim_staging_area.sql`.

Note: The SQL scripts do not qualify database objects according to their schema or owner. When you run the SQL scripts, make sure that you use the ID of the schema or owner to log in to the database. You noted this information in the appropriate section of the installation checklist in the *Genesys Info Mart Deployment Guide.*

7. Run the SQL script to update the Info Mart database schema:

Note: This can take a long time, depending on the amount of data in the database.

a. Navigate to the Genesys Info Mart installation directory.
b. Navigate to the `sql_scripts` subdirectory.
c. Navigate to the RDBMS-specific directory for your Info Mart database type (`db2`, `mssql`, or `oracle`).
d. Run `migrate_gim.sql`.

Note: The SQL script does not specify any particular logical or physical storage. Review and, if necessary, modify the SQL script to make sure that it is suitable for your deployment.

See the note about schemas and owners under Step 6.

8. Run the `make_gim_view.sql` and `make_gim_tenant_view.sql` scripts to re-create the read-only views and the tenant-specific read-only views on the Info Mart database.

These SQL scripts are provided with Genesys Info Mart. For more information, see the section about Genesys Info Mart SQL scripts in the *Genesys Info Mart Deployment Guide.*

9. Re-create any custom database objects or permissions that become lost or invalidated during the migration process. (You identified these objects and permissions in Step 7 on page 1079.)

10. If necessary, customize the Datastore locales in the newly created local repository.

Genesys Info Mart ships Datastore objects with a default locale containing `language = English` and `code page = ms1252`. For more information, see the section about customizing your datastores in the *Genesys Info Mart Operations Guide.*

11. Create Datastore Profiles for each of your datastores in the newly created local repository, as you did in Genesys Info Mart 7.0.1.

    You noted the Datastore connection parameters needed to configure each Datastore profile in the appropriate section of the installation checklist in the *Genesys Info Mart Deployment Guide.*

    For more information about configuring Datastore Profiles, see the section about creating profiles in the *Genesys Info Mart Operations Guide.*

12. Create system profiles for the ETL jobs in the newly created local repository.

    Genesys Info Mart 7.0.2 ships with different ETL jobs than those provided with release 7.0.1.

    For information about creating and configuring system profiles, see the section about creating profiles in the *Genesys Info Mart Operations Guide*.

13. Log in to the Data Integrator Web Administrator and add access to the newly created local repository that contains the Genesys Info Mart 7.0.2 ETL job metadata.

    For information on adding connections to local repositories, see the section about connecting to the local repository in the *Genesys Info Mart Operations Guide.*

14. Create and activate schedules for each ETL job in the newly created local repository.

    You planned these schedules in "Migration Planning" on page 1077, Step 6. For more information on job scheduling, see the section about job scheduling in the *Genesys Info Mart Operations Guide.*

15. After you have successfully run the Genesys Info Mart 7.0.2 ETL jobs, and when you are satisfied that Genesys Info Mart 7.0.2 is working properly, perform the following steps to clean up the Genesys Info Mart 7.0.1 ETL jobs and their local repository:
    a. Log in to the Data Integrator Web Administrator.
    b. Click `Batch` in the navigation tree, and then click the name of the old local repository that contains the Genesys Info Mart 7.0.1 ETL job metadata.
    c. Click the `Configuration` tab.
    d. For each job, click `Schedules`, select the `Select All` check box, and then click `Remove`.
    e. Click `Management > Repositories` in the navigation tree.
    f. Select the check box next to the old local repository name.
    g. Click `Remove`.
    h. Use the database tools for your RDBMS to delete the old local repository.

Configuration Changes

To configure Genesys Info Mart 7.0.2, you must make the following configuration changes:

1. Adjust for tenant-specific configuration options that have been reorganized to allow tenants to independently access their own configuration.

   For single-tenant deployments, configure option values for the default (`Resources`) tenant.

   For multi-tenant deployments, configure default option values that apply to all tenants who do not need tenant-specific option values. Tenants who do not want to use these default option values can configure tenant-specific option values in the tenant's `Annex` tab.
2. Remove any obsolete options.
3. Configure new options that control Info Mart database purging and the amount of data transformed by a single run of the ETL jobs.

"Configuration Option Changes in Genesys Info Mart 7.0.2" on page 1018 summarizes the changes to the Genesys Info Mart ETL application's configuration. The sections that follow contain procedures for migrating your existing configuration (Step 1 and Step 2 above). For more information about configuring new options, see the section about customizing your configuration in the *Genesys Info Mart Deployment Guide*.

Migrating Single-Tenant Deployments

The following procedure explains how to reorganize the tenant-specific portions of your Genesys Info Mart ETL application configuration, and how to delete options that are no longer used.

Perform the following migration steps within each Genesys Info Mart ETL application:

1. Delete the `tenant` option from the `tenant-fiscal-periods` section.
2. Add a new option named `std-enterprise-time-zone` to the `gim-etl` section.
3. Set `std-enterprise-time-zone` to the value configured for the `Enterprise` option in the `standard-time-zones` section.
4. Create a new section named `gim-etl-tenant`.
5. In the `gim-etl-tenant` section, add a new option named `std-tenant-time-zone`.
6. Set `std-tenant-time-zone` to the value configured for the default (`Resources`) tenant option in the `standard-time-zones` section.

Days to Keep Info Mart Facts (Purging)

7. In the `gim-etl-tenant` section, add a new option named `days-to-keep-gim-facts`.

8. Set `days-to-keep-gim-facts` to the value configured for the default (`Resources`) tenant in the `days-to-keep-gim-facts` section.

Cleaning Up Old Options

9. Delete the `end-of-reporting-day` option from the `gim-etl` section.
10. Delete the `standard-time-zones` section.
11. Delete the `days-to-keep-gim-facts` section.

Saving Changes

12. Click `OK` to save your changes.

Migrating Multi-Tenant Deployments

The following procedures explain how to reorganize the tenant-specific portions of your Genesys Info Mart application configuration, and how to delete options that are no longer used.

Perform the following migration steps within each Genesys Info Mart ETL application:

Tenant Fiscal Periods

1. Delete the `tenant` option from the `tenant-fiscal-periods` section.
2. Set the remaining options in the `tenant-fiscal-periods` section to the default values that you want to apply to all tenants that do not need tenant-specific option values.

Standard Time Zones

3. Add a new option named `std-enterprise-time-zone` to the `gim-etl` section.
4. Set `std-enterprise-time-zone` to the value configured for the `Enterprise` option in the `standard-time-zones` section.
5. Create a new section named `gim-etl-tenant`.
6. In the `gim-etl-tenant` section, add a new option named `std-tenant-time-zone`.
7. Set `std-tenant-time-zone` to the default value that you want to apply to all tenants that do not need a tenant-specific option value.

Days to Keep Info Mart Facts (Purging)

8. In the `gim-etl-tenant` section, add a new option named `days-to-keep-gim-facts`.
9. Set `days-to-keep-gim-facts` to the default value that you want to apply to all tenants that do not need a tenant-specific option value.
10. Click `OK` to save your changes.

Tenant-Specific Configuration

11. If any of your tenants require tenant-specific option values for their fiscal periods, standard time zone, or days to keep Info Mart facts, see “Configuring the Tenant Annex Tab” on page 1085.

Cleaning Up Old Options

After you have performed the above migration steps to migrate the configuration of all your Genesys Info Mart ETL applications, perform the

following steps within each Genesys Info Mart ETL application to clean up old options:

1. Delete the `end-of-reporting-day` option from the `gim-etl` section.
2. Delete the non-default `tenant-fiscal-periods` sections. These sections each have a suffix, such as `tenant-fiscal-periods-2`. Do *not* delete the `tenant-fiscal-periods` section that you changed in Step 1 on page 1085—this section provides the default values for all tenants that do not require tenant-specific option values.
3. Delete the `standard-time-zones` section.
4. Delete the `days-to-keep-gim-facts` section.
5. Click `OK` to save your changes.

Configuring the Tenant Annex Tab

The following procedure explains how to configure tenant-specific (non-default) option values for these portions of your Genesys Info Mart application configuration:

- Tenant fiscal periods
- Standard time zones
- Days to keep Info Mart facts (purging)

Displaying the Tenant Annex Tab

By default, Configuration Manager does not display the tenant's `Annex` tab.

To display the `Annex` tab:

1. Select `View > Options`.
2. Select the check box: `Show Annex tab in object properties`.
3. Click `OK`.

Perform the following steps within the tenant's `Annex` tab for each tenant that requires tenant-specific (non-default) option values:

Tenant Fiscal Periods

1. Create a new section named `gim-tenant-fiscal-periods`.

   Note: If you already created a `gim-tenant-fiscal-periods` section for another Genesys Info Mart ETL application, add a suffix to the new section's name (for example, `gim-tenant-fiscal-periods-2`).

2. In the `gim-tenant-fiscal-periods` section, add a new option named `gim-etl-name`. Set `gim-etl-name` to the value of the Genesys Info Mart ETL application name.
3. Copy the following options from the appropriate Genesys Info Mart application's corresponding `tenant-fiscal-periods` section to the new `gim-tenant-fiscal-periods` section:
   - `last-month-of-year`
   - `last-day-of-last-month`

- first-day-of-week
- last-day-identifies-year
- week-pattern-in-quarter

Standard Time Zones

4. Create a new section named gim-etl-tenant.

> **Note:** If you already created a gim-etl-tenant section for another Genesys Info Mart ETL application, create the new section with a suffix (for example, gim-etl-tenant-2).

5. In the new gim-etl-tenant section, add a new option named gim-etl-name.
6. Set gim-etl-name to the value of the Genesys Info Mart ETL application name.
7. In the gim-etl-tenant section, add a new option named std-tenant-time-zone.
8. Set std-tenant-time-zone to the corresponding, tenant-specific value from the appropriate Genesys Info Mart application's standard-time-zones section.

Days to Keep Info Mart Facts (Purging)

9. Perform Step 4 in this procedure (to create the gim-etl-tenant section), if you have not already done so.
10. In the gim-etl-tenant section, add a new option named days-to-keep-gim-facts.
11. Set days-to-keep-gim-facts to the corresponding, tenant-specific value from the appropriate Genesys Info Mart application's days-to-keep-gim-facts section.

Saving Changes

12. Click OK to save your changes.

Part

18 Genesys Info Mart 8.x Migration

The chapters in this section explain the migration process for Genesys Info Mart 8.0 and 8.1, collectively referred to as 8.x. They also present relevant changes to the product and the other Genesys software that supports and enables Genesys Info Mart 8.x functionality.

Notes:
- There is no migration from Genesys Info Mart 7.x to 8.x. However, starting with Genesys Info Mart 8.1.0, it is possible to migrate 7.6 aggregate data to Info Mart 8.1.x.
- Instructions for migrating to Genesys Info Mart 7.x are included in a separate section of this *Migration Guide*.

Be sure to review the information in *all* of the Genesys Info Mart 8.x Migration chapters before performing any migration procedures.

The information is divided into the following chapters:

- Chapter 53, "Introduction to Genesys Info Mart 8.x Migration," on page 1089, provides an introduction to Genesys Info Mart migration.
- Chapter 54, "Changes in Genesys Info Mart 8.x," on page 1093, describes the changes in Genesys Info Mart functionality from one release to the next.
- Chapter 55, "Genesys Info Mart 8.x Migration Procedures," on page 1107, presents step-by-step procedures that you must follow to migrate Genesys Info Mart.
- Chapter 56, "Migration of GIM 7.6 Aggregates," on page 1117, provides information about the utility, which was introduced with Reporting and Analytics Aggregates (RAA) release 8.1, to migrate 7.6 aggregate and associated dimension data to Info Mart 8.1, as well as step-by-step procedures that you must follow to migrate 7.6 aggregates.

Chapter

53 Introduction to Genesys Info Mart 8.x Migration

This chapter provides a checklist of preliminary steps to perform and discusses migration considerations for Genesys Info Mart 8.x.

There are three main sections in this chapter:

Preliminary Migration Checklist

Note: To upgrade your operating system before migrating your Genesys product, contact Professional Services.

The migration process includes thispreliminary planning checklist for Genesys Info Mart 8.x:

1. Review "Migration Notes" on page 1107.
2. Review "Supporting Software Components" on page 1090 for a list of software components that support Genesys Info Mart functionality.
3. Review the Part about planning in the *Genesys Info Mart Deployment Guide* to familiarize yourself with the factors you need to consider when planning your Genesys Info Mart deployment.
4. See *Genesys Interoperability Guide*, which provides information on the compatibility of Genesys products with various Configuration Layer Environments.

5. Review "Changes in Genesys Info Mart 8.x" on page 1093 for the following:
   - New or changed components. For complete information about components, see the *Genesys Info Mart Deployment Guide* for the 8.x release to which you are migrating.
   - New or changed configuration options. For complete information about configuration options, see the *Genesys Info Mart Deployment Guide* for the 8.x release to which you are migrating.
   - Updates to the Info Mart database schema. For complete information about the Info Mart database schema, see the *Genesys Info Mart Reference Manual* for your RDBMS, for the 8.x release to which you are migrating.
6. Read through the migration procedure in Chapter 55 on page 1107 to ensure that you have everything you need and are fully prepared to perform all the steps.

Supporting Software Components

Several software components support Genesys Info Mart functionality. The following supporting software components must be installed for your release of Genesys Info Mart.

Note: For detailed information on supporting software and version compatibility, see the *Genesys Supported Operating Environment Reference Manual* and the relevant release of the *Genesys Info Mart Deployment Guide*.

- Operating system for Genesys Info Mart
- JDK or Server JRE for Genesys Info Mart
- JDBC Driver
- RDBMS for the Info Mart database

Reference Materials

Refer to the following reference materials as needed when planning your Genesys Info Mart 8.x migration. Make sure you use the appropriate release-specific version of each document.

Release Notes and Release Advisories

- *Genesys Info Mart Release Notes* and *Release Advisory*
- *Interaction Concentrator Release Notes* and *Release Advisory*

Genesys Info Mart Documentation

- *Genesys Info Mart Deployment Guide*
- *Genesys Info Mart Operations Guide*
- *Genesys Info Mart Reference Manual* for your RDBMS
- *Genesys Info Mart Database Size Estimator* (requires Microsoft Excel 2007)

System-Level Documentation

- *Genesys Supported Operating Environment Reference Guide* pages
- *Genesys Interoperability Guide* pages
- *Genesys Hardware Sizing Guide*

Interaction Concentrator Documentation

- *Interaction Concentrator Deployment Guide*
- *Interaction Concentrator User's Guide*

Reporting and Analytics Aggregates

- *Reporting and Analytics Aggregates Deployment Guide*
- *Reporting and Analytics Aggregates Reference Manual*

Chapter

54 Changes in Genesys Info Mart 8.x

This section describes changes in the components, configuration options, and database schema of Genesys Info Mart that may impact you as you migrate to the most recent 8.0 or 8.1 release. For complete information about changes in Genesys Info Mart 8.0 or 8.1, refer to the relevant release of the *Genesys Info Mart Deployment Guide*.

There are three sections in this chapter:

Component Changes for Genesys Info Mart 8.x

Table 177 lists the high-level component changes in Genesys Info Mart. For more detailed information, see the *Genesys Info Mart 8.x Deployment Guide*.

For updates to supported platforms, see the relevant items in the *Supported Operating Environment Reference Guide.*

Table 177: Component Changes in Genesys Info Mart 8.x

Current Component Name	Type of change	Change Occurred in Version #	Details
Genesys Info Mart (GIM) Manager	Introduced	8.1.4	A web-based GUI for managing Genesys Info Mart jobs on any platform. Genesys Info Mart Manager provides the same functionality as the Administration Console.
Genesys Info Mart Server	Introduced	8.0	Corresponds to the Genesys Info Mart `Application` object.
Info Mart database	Introduced	8.0	Created with Genesys-provided scripts.
Genesys Info Mart Administration Console	Introduced	8.0	A GUI for managing Genesys Info Mart jobs on Windows platforms.

Changes to Configuration Options for Genesys Info Mart 8.x

Table 178 explains the changes to configuration options for Genesys Info Mart 8.x. The `Change Occurred in Version #` column in the table indicates the Genesys Info Mart release in which the functionality changed.

- For more information about new 8.0.x functionality or modifications that configuration option changes implement, see the "New in This Release" section in the *Genesys Info Mart 8.1 Deployment Guide*.
- For more information about new 8.1.x functionality or modifications that configuration option changes implement, see the "New in This Release" section in the *Genesys Info Mart 8.1 Deployment Guide*.

Table 178: Configuration Option Changes from 8.0.0 to 8.x

[Section Name] Option Name	Type of Change	Change Occurred in Version #	Details
Genesys Info Mart Application Object			
[gim-etl] days-to-keep-deleted-annex	New option	8.1.4	
[gim-etl] etl-start-date	Behavior changed	8.1.4	
[gim-etl] extract-last-second	Option discontinued	8.1.4	The option was discontinued because of issues with missing data. For information about Interaction Concentrator (ICON) settings you can use to achieve a similar result, see the description of the option in the *Genesys Info Mart 8.1 Deployment Guide*.
[gim-etl] max-parties-per-call	Option discontinued	8.1.4	The option was discontinued because improvements in incremental transformation in release 8.1.4 removed the need for the functionality controlled by the option.
[gim-etl] max-time-deviation	Valid values changed	8.1.4	`0` is no longer a valid value.
[gim-transformation] ignored-reason-codes	New option	8.1.4	
[gim-etl] delayed-data-threshold	Scope extended	8.1.3	The functionality now applies in the context of extraction.
[gim-etl] max-session-duration-in-hours	Valid values changed	8.1.3	`0` is no longer a valid value.
[gim-etl] max-state-duration	New option	8.1.3	
[gim-transformation] canceled-queues	New option	8.1.3	

Table 178: Configuration Option Changes from 8.0.0 to 8.x (Continued)

[Section Name] Option Name	Type of Change	Change Occurred in Version #	Details
[gim-transformation] completed-queues	New option	8.1.3	
[gim-transformation] pipeline-timeout-in-hours	New option	8.1.3	
[log4j] logging-level	Valid values changed	8.1.3	Valid values now also include `error`, `all`, and `off`.
[schedule] run-update-stats	New option	8.1.3	
[schedule] update-stats-schedule	New option	8.1.3	
[gim-etl] days-to-keep-active-facts, days-to-keep-gidb-facts	Dependencies introduced	8.1.2	`days-to-keep-active-facts` and `days-to-keep-gidb-facts` must be less than `days-to-keep-gim-facts`.
[gim-etl] max-chain-processing-duration-in-hours	New option	8.1.2	
[gim-etl] max-thread-duration-after-inactive-in-days	Default value changed	8.1.2	The default value changed from `30` to `31`.
[gim-etl] etl-start-date	New option	8.1.103.07	
[gim-etl] max-parties-per-call	New option	8.1.103.03	
[date-time] fiscal-year-start	New option	8.1.1	
[date-time] fiscal-year-week-pattern	New option	8.1.1	
[date-time] date-time-start-year	Default value changed	8.1.1	The default value changed from `2010` to `2012`.
[gim-etl] days-to-keep-active-facts	Behavior and default value changed	8.1.1	The default value changed from `600` to `30`.

Table 178: Configuration Option Changes from 8.0.0 to 8.x (Continued)

[Section Name] Option Name	Type of Change	Change Occurred in Version #	Details
[gim-etl] max-thread-duration-after-inactive-in-days	New option	8.1.1	
[gim-etl] merge-failed-is-link-timeout	New option	8.1.1	
[gim-etl] partitioning-interval-size-gim	Default value changed	8.1.1	The default value changed from `604800` (7 days) to `86400` (1 day).
[gim-etl] user-event-data-timeout	Behavior changed	8.1.1	
[gim-etl-populate] populate-sm-resource-session-facts, populate-sm-resource-state-facts, populate-sm-resource-state-reason-facts	Options discontinued	8.1.1	The options used to control population of tables that Genesys Info Mart now always populates.
[gim-transformation] adjust-vq-time-by-strategy-time	New option	8.1.1	
[gim-transformation] ud-io-parallelism	New option	8.1.1	
[error-policy] error-policy-irf-exception-resumable	New option	8.1.002	
[error-policy] error-policy-call-mergecall-missing	New option	8.1.001	
[date-time] date-time-start-year	Valid values changed	8.1.0	The option, which used to specify the start of a calendar in relation to the current date, now directly specifies the starting year. The range of valid values is `1970–2038`.

Table 178: Configuration Option Changes from 8.0.0 to 8.x (Continued)

[Section Name] Option Name	Type of Change	Change Occurred in Version #	Details
[error-policy] error-policy-* (various)	Default value changed	8.1.0	Except for `error-policy-campaign-group-missing`, the default value of all the interaction-level error-policy options has been changed from `exception` to `resume`.
[gim-etl] merge-chunk-size	Default value changed	8.1.0	The default value changed from `1000000` to `200000`.
[gim-etl-populate] populate-workbin-as-hold	New option	8.1.0	
[error-policy] error-policy-campaign-group-missing	New option	8.0.1	
[gim-transformation] msf-target-route-thru-queue	New option	8.0.1	
[gim-etl] extract-data-max-conn	New option	8.0.1	
[gim-etl-media-chat]	New section, with three new options	8.0.1	New configuration sections enable media-specific configuration of various thresholds that were formerly controlled by options in the `[gim-etl]` section.
[gim-etl-media-email]	New section, with three new options	8.0.1	
[gim-etl] q-answer-threshold-mm	Option moved and renamed	8.0.1	The option has been renamed to `q-answer-threshold`, and it can be configured separately for different media types (for example, `chat` or `email`) in new `[gim-etl-media-<media type>]` configuration sections.

Table 178: Configuration Option Changes from 8.0.0 to 8.x (Continued)

[Section Name] Option Name	Type of Change	Change Occurred in Version #	Details
[gim-etl] q-short-abandoned-threshold-voice	Scope changed	8.0.1	The option in the `[gim-etl]` section now applies for voice calls only. Similar options in new `[gim-etl-media-<media type>]` configuration sections control the equivalent threshold for other media types.
[gim-etl] short-abandoned-threshold	Scope changed	8.0.1	
[gim-etl] max-chunks-per-job	Valid values changed	8.0.1	The valid values are now `1-99`. Previously, any positive integer was a valid value.
Other Configuration Objects			
[gim-etl] geo-location (On `DAP` objects)	New option	8.1.2	
[gim-etl] link-msf-userdata (On `DN` and `Script` objects)	New option	8.1.2	
[gim-etl] q-answer-threshold-mm (On `DN`, `Script`, and `Switch` objects)	Option moved and renamed	8.0.1	The option has been renamed to `q-answer-threshold`, and it can now be configured separately for different media types in new `[gim-etl-media-<media type>]` configuration sections.
[gim-etl-media-<media type>] (On `DN`, `Script`, and `Switch` objects)	New section(s), with one option	8.0.1	Optional new configuration sections enable media-specific configuration of thresholds that were formerly controlled by the `q-answer-threshold-mm` option in the `[gim-etl]` section.
[gim-etl-media] (On `Media Type Business Attribute` objects)	New section, with three options	8.0.1	

Changes to the Database Schema for Genesys Info Mart

Table 179 explains database schema changes in Genesys Info Mart 8.x.

- For more information about new 8.0.x functionality or modifications that schema changes implement, see the "New in This Release" section in the *Genesys Info Mart 8.0 Reference Manual* for your RDBMS.
- For more information about new 8.1.x functionality or modifications that schema changes implement, see the "New in This Release" section in the *Genesys Info Mart 8.1 Reference Manual* for your RDBMS.

The database tables are listed in alphabetical order.

Table 179: Schema Changes from 8.0.0 to 8.x

Table Name	Column Name	Type of Change	Change Occurred in Version #	Comment
Dimensional Model				
ANCHOR_FLAGS		Table added	8.1.1	
CALL_TYPE		Table added	8.1.2	The table is reserved for internal use.

Table 179: Schema Changes from 8.0.0 to 8.x (Continued)

Table Name	Column Name	Type of Change	Change Occurred in Version #	Comment
CONTACT_ ATTEMPT_FACT	CPD_COUNT	Columns added	8.1.0	
	CPD_DIAL_COUNT			
	CPD_DIAL_ DURATION			
	CPD_DURATION			
	CPD_TRANSFER_ COUNT			
	CPD_TRANSFER_ DURATION			
	CONTACT_IXN_ START_TIME	Columns removed	8.1.0	For information about how to use other fields to obtain equivalent data, see the "Populating Contact Attempt Facts and Dimensions" section of the *Genesys Info Mart 8.x User's Guide*.
	CONTACT_ WITHIN_DAILY_ RANGE			
	IXN_START_TIME			
	IXN_START_TIME_ KEY			
	RESOURCE_ GROUP_ COMBINATION_ KEY	Column added	8.0.1	
GROUP_ANNEX		Table added	8.1.4	
INTERACTION_ DESCRIPTOR	CUSTOMER_ SEGMENT, SERVICE_TYPE, SERVICE_ SUBTYPE, BUSINESS_ RESULT	Default values defined	8.1.201.02	
INTERACTION_ FACT	STATUS	Column added	8.1.0	

Table 179: Schema Changes from 8.0.0 to 8.x (Continued)

Table Name	Column Name	Type of Change	Change Occurred in Version #	Comment
INTERACTION_ RESOURCE_FACT	IDX_IRF_IID	Index added	8.1.3	
	ANCHOR_FLAGS_ KEY	Column added	8.1.1	
	LAST_MEDIATION _SEGMENT_ID	Column added	8.1.1	
	RECEIVED_FROM_ IXN_RESOURCE_ ID			
	STOP_ACTION	Scope changed	8.1.1	This flag is now populated for multimedia as well as for voice interactions, with different meaning.
	STOP_ACTION	Column added	8.1.0	
INTERACTION_ RESOURCE_FACT (continued)	HOLD_COUNT, HOLD_DURATION, CUSTOMER_HOLD _COUNT, CUSTOMER_HOLD _DURATION, CONS_INIT_HOLD _COUNT, CONS_INIT_HOLD _DURATION, CONS_RCV_HOLD _COUNT, CONS_RCV_HOLD _DURATION	Scope changed	8.1.0	Depending on configuration, reporting of hold metrics has been extended to multimedia interactions to include time in interaction workbins.
	CONF_INIT_TALK_ COUNT, CONF_INIT_TALK_ DURATION	Scope changed	8.1.0	
	CONFERENCE_ INITIATED_COUNT	Column added	8.1.0	

Table 179: Schema Changes from 8.0.0 to 8.x (Continued)

Table Name	Column Name	Type of Change	Change Occurred in Version #	Comment
INTERACTION_ TYPE	IGNORE	Column added	8.0.1	
IRF_USER_DATA_ CUST_1 and other custom user-data fact tables	<CUSTOM_DATA>	Supported data types extended	8.1.201	Custom user-data facts can now be stored as date/time data types.
IRF_USER_DATA_ GEN_1	REVENUE	Columns added	8.0.1	
	SATISFACTION			
MEDIA_TYPE	IS_ONLINE	Column added	8.0.1	
MEDIATION_ SEGMENT_FACT	I_MSF_IID	Index added	8.1.4	
	ENTRY_ORDINAL	Columns added	8.1.1	These fields support linking MSF records to the parent IRF. There are also new GIDB tables to support this feature.
	IXN_RESOURCE_ ID			
	WORKBIN_KEY			This key references the `WORKBIN` dimension that corresponds to the workbin instance.
REQUESTED_ SKILL	ID	Column added	8.1.2	This autogenerated field serves as a primary key.
RESOURCE_	SWITCH_DBID	Column added	8.1.1	
RESOURCE_ ANNEX		Table added	8.1.4	
RESOURCE_GROU P_COMBINATION	GROUP_COMBINA TION_KEY, GROUP_KEY	Primary key constraint added	8.1.2	

Table 179: Schema Changes from 8.0.0 to 8.x (Continued)

Table Name	Column Name	Type of Change	Change Occurred in Version #	Comment
SM_RES_STATE_FACT	START_MSEC	Columns added	8.1.3	
	END_MSEC			
	I_RSSF_RC_MT_MTS	Index added	8.1.3	
WORKBIN		Table added	8.1.1	
Various		Indexes removed (PostgreSQL only)	8.1.4	Some indexes on user-data extension tables were removed because they serve no purpose in a partitioned database. For a list of the indexes that were removed, see the *Genesys Info Mart 8.1 Reference Manual for PostgreSQL*.
	*_SDT_KEY	No schema change	8.1.2	Previously reserved fields are now populated.
	DATA_SOURCE_KEY	Column removed	8.1.0	
Control Tables				
CTL_AUDIT_LOG, CTL_ETL_HISTORY, CTL_EXTRACT_HISTORY, CTL_PURGE_HISTORY, CTL_TRANSFORM_HISTORY	CREATED_TS	Column added	8.1.2	There have been related changes to indexes on these tables. All these tables can now be partitioned.
CTL_TRANSFORM_TODO		Table added	8.1.2	

Table 179: Schema Changes from 8.0.0 to 8.x (Continued)

Table Name	Column Name	Type of Change	Change Occurred in Version #	Comment
CTL_TENANT_ VIEW	USER_NAME	Column added	8.1.2	
CTL_UD_TO_UDE_ MAPPING	CONVERT_ EXPRESSION	Column added	8.1.201	To assist in populating the column in Microsoft SQL Server deployments, two Genesys-defined database functions, `GIM_TO_TIMESTAMP_ ISO8601` and `GIM_IS_ ISO8601_DATE`, serve as samples for further customization to convert date/time data types.
All Control tables	CREATED_TS	Field made mandatory	8.1.2	
Various		Indexes removed (PostgreSQL only)	8.1.4	Some indexes on Control tables were removed because they serve no purpose in a partitioned database. For a list of the indexes that were removed, see the *Genesys Info Mart 8.1 Reference Manual for PostgreSQL*.
		Primary keys implemented	8.1.2	
GIDB Tables				
GIDB_G_ROUTE_ RES_VQ_HIST_V, GIDB_G_ROUTE_ RES_VQ_HIST_MM		Tables can be partitioned	8.1.3	
GIDB_GC_ANNEX		Table added	8.1.4	

Table 179: Schema Changes from 8.0.0 to 8.x (Continued)

Table Name	Column Name	Type of Change	Change Occurred in Version #	Comment
GIDB_GO_ RECORD		Table removed	8.1.0	
Various		Indexes removed (PostgreSQL only)	8.1.4	Some indexes on GIDB tables were removed because they serve no purpose in a partitioned database. For a list of the indexes that were removed, see the *Genesys Info Mart 8.1 Reference Manual for PostgreSQL*.
		Primary keys implemented	8.1.2	

Chapter

55 Genesys Info Mart 8.x Migration Procedures

This chapter provides the step-by-step migration procedures for release 8.0.0 to 8.x.

This chapter includes:

Migration Notes

- You must migrate the Genesys Info Mart Administration Console *before* migrating Genesys Info Mart Server. The updated Genesys Info Mart Administration Console enables you to run `Job_MigrateGIM`.
- If you are using Reporting and Analytics Aggregates (RAA), check the RAA Release Notes to verify that the release you are using is compatible with the new release of Genesys Info Mart 8.x. If you find that you need to install a more recent version of RAA, do so *after* you complete your Genesys Info Mart migration.
- Genesys does not recommend migrating any of the data sources at the time of Genesys Info Mart migration. If you need to migrate any of the data sources to a more recent release, do so either before you start or after you successfully complete the Genesys Info Mart migration. Refer to the *Genesys Info Mart Operations Guide* for the release to which you are migrating for guidelines.

- If you need to enable new features, do so after you successfully complete the Genesys Info Mart migration. For a list of new features and pointers to where they are described, refer to the *Genesys Info Mart Deployment Guide* for the release to which you are migrating.

Migration Preliminaries and Planning

Complete these preliminary procedures before starting your migration of Genesys Info Mart:

1. Make sure to review all of the instructions carefully before you execute any of them.
2. Review the *Genesys Info Mart Release Advisory* for the release to which you are migrating for information about known operating system and RDBMS issues, and potential ways to work around any issues.
3. Review the data-size estimates in the *Genesys Info Mart Database Size Estimator* for the release to which you are migrating.
4. The Interaction Database (IDB) schema might need to be updated as part of the migration. To minimize the possibility of deadlocks or concurrency problems, plan to execute your migration at a time when there is little activity on the IDBs, such as during off-peak hours or after hours (but not during IDB maintenance, when purge stored procedures will be running). Performing the migration at a time when Interaction Concentrator (ICON)–related IDB activity is low minimizes the possibility of concurrency problems if the IDB schema update for a particular release is significant—for example, if Genesys Info Mart requires new indexes to be built on a core IDB table. For additional steps you might be able to take to prevent concurrency problems, see “Preventing Deadlocks on IDB During Genesys Info Mart Migration” on page 1110.
5. Plan to execute your migration at a time when there is relatively little contact center activity and relatively little demand for access to Info Mart database data for reporting purposes, such as during a regularly scheduled maintenance window. Several of the steps can take a significant amount of time to complete, which might affect the availability of Info Mart data.

   Carefully following the migration procedure in this document helps you to:
   - Minimize the time during which Genesys Info Mart is not running `Job_ExtractICON` and `Job_TransformGIM` to extract, transform, and load (ETL) new data.
   - Minimize the time during which the Info Mart database is not available for reporting.

   Warning! Ensure that no queries or other activities are run against the Info Mart database while `Job_MigrateGIM` runs.

6. Review the information about `Job_MigrateGIM`, in the *Genesys Info Mart Operations Guide*. It is important that you understand the role of this job in the migration process and its effect on other daily jobs.
7. If you are migrating Genesys Info Mart in a deployment in which you use or plan to use Genesys-provided aggregation, review the RAA and Genesys Interactive Insights (GI2) Release Notes and Release Advisories, for information about the impact of Genesys Info Mart migration on aggregation, as well as workarounds or additional steps to take during Genesys Info Mart migration.

Preparatory Steps

1. For reference purposes, identify and make notes of any custom changes that you made to the Info Mart database—for example, table spaces, partitions, additional indexes, views, or permissions.

   The Genesys Info Mart SQL scripts that you will run to update these databases sometimes create new tables, instead of updating the old tables. They may also replace some tables with views, for backward compatibility. You will need to re-create any custom database objects or permissions that become lost or invalidated during the update process.
2. For reference purposes, create backup copies of the Genesys Info Mart deployment SQL scripts that you modified and ran when you last deployed Genesys Info Mart. The new Genesys Info Mart installation program overwrites these SQL scripts and does not preserve your modifications.

   The default location for these scripts is the `sql_scripts` directory within the Genesys Info Mart installation directory.
3. For reference purposes, identify and make notes of any custom changes that you made to the Genesys Info Mart `Application` object. You might need to transfer customizations in your Genesys Info Mart deployment for the new Genesys Info Mart release.
4. Make a note of the application startup arguments if you customized them. The installation process will overwrite these arguments and you will lose any changes that you made.
5. Set the `run-scheduler` configuration option to `false` in the `[schedule]` section of the Genesys Info Mart `Application` object to temporarily stop Genesys Info Mart Server from launching ETL jobs.

Note: Stopping the Genesys Info Mart server does not result in data loss. As long as all ongoing interaction data is stored in IDBs, Genesys Info Mart will process that data after you complete the migration.

6. If you are migrating to a release earlier than 8.1.2, verify that Genesys Info Mart has transformed all extracted data. If necessary, rerun the transformation job manually. For information about running a job on an unscheduled basis, see the chapter about working with jobs in the *Genesys Info Mart Operations Guide*.
7. If you are using Genesys-provided aggregation, stop the aggregation job. If the aggregation job is running in automated mode:
   a. Set the `run-aggregates` option to `false` in the `[schedule]` section of the Genesys Info Mart `Application` object.
   b. Stop the aggregation job from the Genesys Info Mart Administration Console.
8. Wait for any currently running jobs to finish. Use the Genesys Info Mart Administration Console to monitor the completion of the jobs.

   Note: The aggregation job might take a long time to complete. If this is the case, proceed with the next step as soon as all other jobs finish.

9. Stop the Genesys Info Mart Server.
10. If you are migrating to a Genesys Info Mart release earlier than 8.1.1 and you also plan to upgrade RAA, temporarily disable aggregation so that Genesys Info Mart and RAA do not attempt to migrate their database schemas at the same time. To disable aggregation, set the `aggregation-engine-class-name` option to `none` in the `[gim-etl]` section of the Genesys Info Mart `Application` object.
11. Create a backup copy of your Info Mart database.
12. If necessary, migrate Interaction Concentrator. For information about the minimum Interaction Concentrator release that is required for the Genesys Info Mart release to which you are migrating, see the *Genesys Info Mart 8.x Release Notes.*

Preventing Deadlocks on IDB During Genesys Info Mart Migration

13. To preempt problems if the IDB schema is updated as part of the Genesys Info Mart migration (see Migration Preliminaries Step 4 on page 1108), and particularly if `Job_MigrateGIM` fails because of deadlocks or concurrency problems on IDB, consider all ways in which you can minimize or prevent contention between Genesys Info Mart and ICON activity on IDB during migration.

    In particular, stop ICON if it is feasible to do so. For example, if your deployment is not 24/7 and you are performing the migration after hours, when there is no contact center activity for ICON to monitor, it is feasible to stop ICON without incurring any data loss.

    If your deployment includes high availability (HA) of ICON, Genesys recommends that you leverage the redundancy, as follows:
    a. Stop one of the ICONs from the HA set (ICON-1).

b. Execute the applicable update script (as described in the migration procedure, Step 4 on page 1112) against the associated IDB (IDB-1).

c. Start ICON-1.

d. For a Voice details ICON, wait for the `max-call-duration` interval to elapse. (For other types of ICON details, it is not necessary to wait.)

e. Stop the second ICON from the HA set (ICON-2).

f. Execute the same `update_idb_for_gim.sql` script against IDB-2, then start ICON-2.

Migration Step-by-Step

1. On a Microsoft Windows operating system, use Windows `Control Panel > Add/Remove Programs to` uninstall the current Genesys Info Mart IP.

   On a UNIX platform, rather than uninstalling the current Genesys Info Mart IP, you overwrite the current version when you install the new IP (see Step 3 on page 1111).

2. Review Table 178 on page 1095 and identify if any configuration option changes affect customizations that you may have made in your Genesys Info Mart deployment. If necessary, modify configuration settings in the Genesys Info Mart `Application` or other configuration objects, as required, to transfer custom settings for your deployment.

   For example, if you are migrating from any 8.0.0 release in a deployment that used a custom queue threshold value for multimedia interactions (as defined by the `q-answer-threshold-mm` option in the `[gim-etl]` section), you must transfer the custom value to the `q-answer-threshold` option in the new `[gim-etl-media-email]` and `[gim-etl-media-chat]` sections.

   Because release 8.1.x no longer uses relative values to determine when calendar dimensions start (for example, `date-time-start-year = -1` is no longer valid), verify the validity of the `date-time-start-year` setting for existing calendars if you are migrating from any 8.0.x release to an 8.1.x release. If you used a relative value for the `date-time-start-year` option in the `[date-time]` and any custom `[date-time-*]` sections, change the setting to the appropriate absolute value. Otherwise, an error will be generated when Genesys Info Mart performs the configuration check.

3. Refer to the chapter about installing Genesys Info Mart components in the *Genesys Info Mart Deployment Guide* for the release to which you are migrating, and follow the appropriate procedure for installing the new version of Genesys Info Mart.

   When you run the new installation script on a UNIX platform, select the appropriate action to overwrite the existing version (for example, `Overwrite only the files contained in this package`).

4. If you are migrating to a release earlier than 8.1.2, for each IDB from which Genesys Info Mart will extract ICON details, run the appropriate Genesys Info Mart–provided SQL scripts—located in the `<GIM root>/sql_scripts/<dbms>` folder—to add to each IDB the views and indexes that Genesys Info Mart 8.x requires.
   - For a Voice details IDB, use `update_idb_for_gim.sql`.
   - For a Multimedia details IDB, use `update_idb_for_gim_mm.sql`.
   - For a Configuration details or an Outbound Contact details IDB, use either `update_idb_for_gim.sql` or `update_idb_for_gim_mm.sql`.

   (Starting with release 8.1.2, `Job_MigrateGIM` runs the scripts automatically.)

   Note: If the scripts do not complete correctly, analyze the problem by referring to the log file, resolve any issues, and then run the update script again before you proceed to Step 7 on page 1112. If problems persist, or if for any reason you decide to terminate the migration process, run the update script from your pre-migration release of Genesys Info Mart.

5. (For Oracle users only) If you are migrating from a release earlier than 8.1.103.05, grant permissions to the Info Mart database user by issuing the following commands against the Info Mart database:

```
GRANT
    CREATE SESSION,
    CREATE PROCEDURE,
    CREATE SEQUENCE,
    CREATE TABLE,
    CREATE VIEW to <Info Mart user>;
GRANT EXECUTE ON DBMS_LOCK to <Info Mart user>;
```

6. (For Oracle users only) If you are migrating to release 8.1.101.07 or earlier 8.1.1 release, manually configure the `jdbc-url` option in the `[gim-etl]` section on the `Options` tab of all database access points (DAPs) that Genesys Info Mart uses, to ensure that Genesys Info Mart will use the correct JDBC connection parameters. For more information about configuring the `jdbc-url` option, see the chapter about configuring DAPs in the *Genesys Info Mart 8.1 Deployment Guide.*

   Note: The *Genesys Info Mart 8.1 Deployment Guide* describes the `jdbc-url` option as applicable to non-JDBC DAPs only, but the option is supported on JDBC DAPs as well.

7. Restore any customizations in startup arguments, start the Genesys Info Mart Server, and review the Genesys Info Mart log.

If you find log message 55-20152 ("GIM Server - current state is MIGRATION") or 55-20034 ("...database schema version...is not up to date..."), you must run Job_MigrateGIM to upgrade your Info Mart database schema and, starting with release 8.1.2, automatically execute the scripts to update IDBs. Proceed to Step 8.

If you do *not* find log message 55-20152 or 55-20034, continue with Step 14 on page 1115.

Note: Genesys recommends that you set an alarm condition for log event 55-20152.

8. If you *do* need to run Job_MigrateGIM, Genesys Info Mart Server will automatically be in the correct state to perform the migration.

Warning! From this point onward, the Info Mart database should not be accessed by report queries or other scheduled activities, such as custom aggregation, until the migration job is complete. Doing otherwise would interfere with the migration process, which will be modifying database tables, views, and indexes.

Launch Job_MigrateGIM from the Genesys Info Mart Administration Console:

a. Open the Administration Console window.
b. Select the Schedule tab.
c. Click Run Job....
d. From the menu that opens, select Job_MigrateGIM.

Allow this job to complete before continuing.

9. If Job_MigrateGIM does not complete successfully, do the following:
   a. Stop Genesys Info Mart Server.
   b. Analyze the problem by referring to the log file, and resolve any issues.

      If you are migrating to release 8.1.2 or later and Job_MigrateGIM failed because of deadlocks or concurrency problems on IDB, there are additional steps you might be able to take to prevent such issues. For more information, see "Preventing Deadlocks on IDB During Genesys Info Mart Migration" on page 1110.
   c. If you are migrating to release 8.1.2 or later, retry the migration starting from Step 7 on page 1112 (restarting Genesys Info Mart Server). If problems persist, restore the Info Mart database from the backup copy and then retry the migration again.

      If you are migrating to a release earlier than 8.1.2, restore the Info Mart database from the backup copy and then retry the migration, starting from Step 7 on page 1112 (restarting Genesys Info Mart Server).

If you decide to terminate the migration process, restore:

- The Info Mart database from the backup copy.
- The IDB schema to its pre-migration state by running the applicable update script (as described in Step 4 on page 1112) from the pre-migration release of Genesys Info Mart.
- The pre-migration Genesys Info Mart application.

10. If you stopped ICON as part of the migration preliminaries (see "Preventing Deadlocks on IDB During Genesys Info Mart Migration" on page 1110), start ICON.
11. If your deployment uses read-only views, you must re-create the read-only views after the migration job completes. For more information, see the section about creating Genesys Info Mart read-only views in the *Genesys Info Mart 8.1 Deployment Guide.*
12. If your deployment uses Genesys-provided aggregation and you are migrating to a Genesys Info Mart release earlier than 8.1.1:
    a. If you disabled Genesys-provided aggregation because you also want to upgrade RAA (see Preparatory Step 10 on page 1110), re-enable aggregation. To do so:
        i. Stop Genesys Info Mart Server.
        ii. Reset the `aggregation-engine-class-name` option to `"GIMAgg.GimInterfaceImpl.AggregationImpl"` in the `[gim-etl]` section of the Genesys Info Mart `Application` object.
        iii. Restart the Genesys Info Mart Server.
    b. In addition to re-creating the Info Mart tenant views (see Step 11), you must also re-create the RAA and Genesys Interactive Insights (GI2) main schema views. To do so:
        i. Stop Genesys Info Mart Server.
        ii. Issue the following SQL statements against the Info Mart database:

            For Oracle:

            ```
            merge into CTL_SCHEMA_INFO d using (select 'Interactive
            Insights' SCHEMA_NAME from dual) s on ( d.SCHEMA_NAME =
            'Interactive Insights' )
            WHEN MATCHED THEN UPDATE SET d.SCHEMA_VERSION = '0clean'
            WHEN NOT MATCHED THEN INSERT (d.SCHEMA_NAME,
            d.SCHEMA_VERSION) values ('Interactive Insights', '0clean');
            commit;
            ```

            For Microsoft SQL Server:

            ```
            begin transaction;
            delete from CTL_SCHEMA_INFO where SCHEMA_NAME = 'Interactive
            Insights';
            insert into CTL_SCHEMA_INFO (SCHEMA_NAME, SCHEMA_VERSION)
            values ('Interactive Insights', '0clean');
            commit transaction;
            ```

        iii. Restart the Genesys Info Mart Server.

13. If your deployment uses Genesys-provided aggregation and you are migrating to any Genesys Info Mart 8.x release, in addition to re-creating the Info Mart tenant views (see Step 11 on page 1114), you must also update the tenant aliases. For more information, see the description of the `updateAliases` runtime parameter in the *Reporting and Analytics Aggregates Deployment Guide* and the section about updating tenant aliases in the *Reporting and Analytics Aggregates User's Guide.*
14. Review Table 179 on page 1100, as well as the "New in This Release" sections in the Release Notes and in the *Genesys Info Mart 8.x Reference Manuals* for your RDBMS, and make any changes to the database schema values or to downstream reporting applications that may require action as part of the migration process.
    - For example, if you are migrating to release 8.1.x directly from release 8.0.0, you might need to check the values of the `IS_ONLINE` column in the `MEDIA_TYPE` table to see whether all media types are correctly identified as online (real-time communication, such as chat) or offline (responses may be deferred, such as e-mail).
    - Be aware that Genesys Info Mart migration does not go back to manipulate existing data (in other words, data that was processed before migration). In particular:
        - Where new columns have been added, they are not populated for existing data.
        - Any changes to the scope of a particular field, or the logic behind its population, are not reflected in existing data.
        - When you migrate from release 8.1.0 to release 8.1.1, the staging tables that track thread activity are seeded with knowledge of threads that relate to interactions that cover the time span of interactions in GIDB. However, Genesys Info Mart does not represent agent participation in threads that were active before migration.
    - Be aware that, during migration from release 8.1.0 or 8.1.1 to release 8.1.2 or later, Genesys Info Mart creates new `CTL_AUDIT_LOG` and `CTL_*_HISTORY` tables. Genesys Info Mart renames the existing tables to `CTL_*_BK` and retains them for reference.
        - If you use the `CTL_AUDIT_LOG` table for postprocessing (for example, to move data from the Info Mart database to a data warehouse or to support custom aggregation), verify that `CTL_AUDIT_LOG_BK` does not contain any unprocessed audit keys. If you find any unprocessed audit keys, copy them from `CTL_AUDIT_LOG_BK` to the new `CTL_AUDIT_LOG` table.
        - Delete the `CTL_*_BK` tables when you are satisfied that you no longer need them for reference purposes or backup.

- Be aware that, during migration from release 8.1.3 or earlier to release 8.1.4:
  - Genesys Info Mart creates a new `STG_TRANSFORM_DISCARDS` table, renaming the existing table to `STG_TRANSFORM_DISCARDS_BK`.
  - In deployments that include multimedia, Genesys Info Mart creates new `GIDB_G_PARTY_HISTORY_MM`, `GIDB_G_CALL_MM`, `GIDB_G_VIRTUAL_QUEUE_MM`, `GIDB_G_USERDATA_HISTORY_MM`, and `GIDB_G_SECURE_UD_HISTORY_MM` tables. Genesys Info Mart populates the new `GIDB_G_*_MM` tables by copying over only interaction data that has not yet been transformed. Interaction data that has already been fully transformed and is not required for subsequent processing is not preserved.

15. If you are migrating to release 8.1.200.21 in an Oracle deployment with a partitioned Info Mart database, perform the following steps to prevent a possible postmigration problem because of unavailable partitions:
    a. Execute the following SQL statements:

```
begin execute immediate 'alter table CTL_AUDIT_LOG add PARTITION GIM__MAXVALUE VALUES LESS THAN(MAXVALUE)'; exception when others then if sqlcode in (-14074) then null; else raise; end if; end;
begin execute immediate 'alter table CTL_ETL_HISTORY add PARTITION GIM__MAXVALUE VALUES LESS THAN(MAXVALUE)'; exception when others then if sqlcode in (-14074) then null; else raise; end if; end;
```

    b. Run `Job_MaintainGIM` from the Genesys Info Mart Administration Console.
16. Set the `run-scheduler` configuration option to `true` in the `[schedule]` section of the Genesys Info Mart `Application` object, to resume the Genesys Info Mart Server schedule.
17. If you are using Genesys-provided aggregation, set the `run-aggregates` configuration option to `true` in the `[schedule]` section of the Genesys Info Mart `Application` object, to resume running the aggregation job in automated mode.

Chapter

56 Migration of GIM 7.6 Aggregates

The initial Reporting and Analytics Aggregates (RAA) 8.1 release introduced a utility that, when invoked, migrates a subset of Genesys Info Mart (GIM) aggregate and associated dimension table data from 7.6 to 8.1. Migration of the data is achieved without reading or modifying the underlying GIM 7.6 fact data. Aggregate and associated dimension table data are read from a GIM 7.6 schema and loaded into a GIM 8.1 schema—making this data available for reporting in your 8.1 reports.

Starting with release 8.1.4, RAA no longer supports the migration utility. If you need to migrate data from a GIM 7.6 schema to an 8.x schema with RAA 8.1.4 or later, you must perform a two-step migration of the data: Use the utility available in an RAA 8.1.1 installation package (IP) to migrate from GIM 7.6, and then migrate your RAA deployment and GIM schema in the usual way for 8.x migration.

The migration utility migrates the data for only those aggregates (prefaced `AG2_`) and dimensions that are required for RAA 8.1 operation. This utility does not migrate GIM 7.6 fact data nor any of the first-generation aggregate tables (prefaced `AG_`) that were associated with the GIM Inbound Voice CCPulse+ reporting templates that were introduced with the 7.2 release.

This chapter describes the main aspects of RAA migration within the following sections:

Refer to “Purview of Genesys Interactive Insights Migration” in this guide to see a summary of changes that were implemented within RAA throughout the various releases.

Overview

The RAA migration utility is supported for operation against Info Mart 7.6 schemas 7.6.005.00 or higher; note that this support includes future 7.6 schemas. For any of the Info Mart 8.*x* schemas in which RAA has been deployed, migration of the aggregation tables is not necessary. Beginning with the initial RAA 8.0.000.32 release, Info Mart schema is upgraded automatically—as required for aggregation—when RAA is installed and run. This automatic upgrade pertains to the aggregate tables only. Refer to the "Upgrading RAA" section in the *Reporting and Analytics Aggregates User's Guide* for details.

Running the migration utility that is described in this chapter will enable you to see 7.6 data alongside 8.1 data within the same database.

Note: Throughout this chapter, references to Genesys Info Mart 7.6.005.11+ or Info Mart 7.6.005.00 schema might be abbreviated simply as GIM 7.6.

Audience

The information in this chapter services two classes of users of GIM aggregates—namely:

- Genesys Interactive Insights 8.1 users who want to see their previously aggregated GIM 7.6 data and their newly aggregated RAA 8.1 data within the same report.
- Reporting and Analytics Aggregates 8.1 users who built their own custom reports and want to see their previously aggregated GIM 7.6 data and their newly aggregated RAA 8.1 data within the same report.

Migration Path

The RAA 8.1 aggregation migration utility requires a minimum source Info Mart schema version of 7.6.005.00. This schema is associated with GIM release 7.6.005.11. If you are using a Genesys Info Mart 7.6 release prior to 7.6.005.11, you must upgrade it before you can run the RAA 8.1 migration utility. Table 180 summarizes the migration path that you should follow, given your version of Info Mart 7.6 schema. (Note that this version might differ from the Genesys Info Mart release in which the schema was introduced.)

Table 180: Data Migration Path to RAA 8.1

Data from Info Mart Schema...	Required Actions
Prior to 7.6.005.00	1. Upgrade to—at minimum—7.6.005.11, but preferably to the latest 7.6 maintenance release following the instructions in the Deployment Procedure for the specific version to which you are upgrading. 2. Run RAA migration as documented beginning on page 1121.
>= 7.6.005.00 and < 8.0.*x*	Run the RAA migration procedure, as documented beginning on page 1121.

Also, to migrate other Genesys products that have a dependency on RAA, such as Genesys Interactive Insights, refer to the "Migrating Genesys Interactive Insights" or the appropriate chapter of this guide. The interoperability of the Genesys Info Mart and Genesys Interactive Insights products with the RAA 8.*x* releases is described in the *Reporting and Analytics Aggregates 8.x Release Advisory*.

Prerequisites and Recommendations

Prerequisites

The following prerequisites apply:

- GIM 7.6 and GIM 8.1 must be installed within the same Genesys Framework Configuration Layer.
- The GIM 8.1 database must be created within the same database server as the GIM 7.6 database; the migration utility must be able to copy data from the 7.6 schema to the 8.1 schema.
- The GIM 8.1 database user must be granted read access to GIM 7.6 objects:
  - For Microsoft SQL, the database administrator must grant, at minimum, `db_datareader` permission to the GIM 7.6 database.
  - For Oracle, the database administrator must issue `GRANT SELECT` statements against all GIM 7.6 objects that the GIM 8.1 database user needs to access. The listing of required permission grants is generated by the SQL script that is provided in the next subsection: "Script for Granting SELECT Access to GIM 7.6 Objects".
- GIM 7.6 and GIM 8.1 must not use the same Interaction Concentrator instances as their data sources.

- Your Info Mart 7.6 schema must include all of the `AG2_INB_V_*` aggregate tables.

  These tables are created during initialization regardless of how the populate-tables configuration options (prefaced with `populate-*`) are set in the GIM `Application` object. If you have dropped one or more of these tables, migration will fail. They must all exist, even if some of them are empty.

Script for Granting SELECT Access to GIM 7.6 Objects

The database administrator must issue the following SQL script against the GIM 7.6 schema on Oracle RDBMSs to generate the SQL statement that can be used to grant the appropriate permissions to the GIM 8.1 user for the purpose of accessing GIM 7.6 objects.

```
SELECT 'grant select on '
        || uo.object_name
        || ' to <Your GIM8.1 user> ;'
FROM user_objects uo
WHERE
    uo.object_name LIKE 'AG2%'
OR  uo.object_name IN
        ('DATE_TIME'                ,
         'RESOURCE_STATE'           ,
         'RESOURCE_GROUP_COMBINATION',
         'RESOURCE_STATE_REASON'    ,
         'INTERACTION_DESCRIPTOR'   ,
         'RESOURCE_'                ,
         'TENANT'                   ,
         'GROUP_'                   ,
         'TIME_RANGE');
```

Minimizing Gaps in Reporting

Consider how you plan to roll out migration. When do you plan to cease 7.6 data collection? When do you plan to place 8.1 into production? Do you plan to operate GIM 7.6 and GIM 8.1 simultaneously in production?

Provided that you have the hardware resources capable of handling the load, migration utility enables you to operate both GIM 7.6 and GIM 8.1 in parallel for some period of time as you prepare GIM 8.1 for production—validating its data; fine-tuning both its configuration and database—and retaining GIM 7.6 as the mechanism by which to collect production data. Prior to migrating the 7.6 aggregates, the aggregation migration utility deletes aggregate data from the 8.1 environment up to but not including the cutover point in order to prevent duplicate records from being written to the aggregate tables. The utility also sets a high-water mark for the aggregated fact data, so that, after cutover, fact data that is earlier than the high-water mark will not be reaggregated.

On Choosing the Cutover

Carefully consider the timing of the cutover from 7.6 to 8.1 data to ensure that you have performed all rollups that require reaggregation (for example, month-end rollups) before you migrate the 7.6 aggregate data. After migration, it is not possible to reaggregate pre-cutover fact data.

The migration utility uses the end of the day `DATE_TIME` key (containing `END_DATE_TIME_KEY`) that is associated with the cutover date and time that you specify as a high-water mark for aggregated fact data. The utility's recognition of this high-water mark prevents duplicate data in the 7.6 and 8.1 fact tables from being double-counted in the aggregates. After successful migration, it is not possible to reaggregate fact data that is earlier than the high-water mark, even if data exists in the 8.1 Info Mart, and even if events occur that normally would trigger reaggregation.

Warning! Please note that in autonomous mode, you can manually issue a request to migrate any range of data using the `-insertPendingRaw` runtime parameter. Selecting a range prior to the cutover date and issuing this command should be avoided.

Conducting a Dry Run

Genesys recommends that you run migration first in a lab environment both to test your setup and to gauge how long migration could take in your production environment. Based on the volume of your 7.6 data and the amount of time that it takes for your trial run, you can project how long migration will take in your production environment. With this information, you can better time data-transition activities.

Mechanics of RAA Migration

The migration utility is deployed as part of an RAA 8.1 installation. It consists of a script—`76agg_migrate.bat` (on Microsoft Windows platforms) and `76agg_migrate.sh` (on UNIX platforms)—and supporting files. (Refer to the "Application Files" chapter in the *Reporting and Analytics Aggregates Deployment Guide* for the listing of the migration-related files that are deployed.)

Before it actually migrates data, the script performs a number of tasks to ready the stage for migration including:

- Creating temporary dimension tables in the GIM 8.1 schema and populating them with GIM 7.6 dimension table data (see "Provisional Dimensions" on page 1122).

- Verifying the input environment variables that you supply (see "Setting Environment Variables for Migration" on page 1124).
- Turning the migration mode of aggregation on and off.
- Defining special hierarchies within GIM 8.1 that will be used to aid the aggregate migration process (see "Migration Hierarchies" on page 1125).
- Deleting the existing aggregates within the GIM 8.1 schema for all reporting intervals prior to the cutover date that you specify (see "Minimizing Gaps in Reporting" on page 1120).
- Submitting a request to the aggregation queue to migrate aggregate data and scheduling `Job_AggregateGIM` to run in a special migration mode within the GIM 8.1 Server to migrate the aggregate data from the GIM 7.6 schema to the GIM 8.1 schema using the dimension mapping information and the special hierarchies that are stored in the `GIM76_MAP` temporary tables (see "Mapping of Aggregate Tables" on page 1125).

The script immediately exits if any preparatory step does not complete successfully. This section describes some of the mechanics of the aggregation migration utility.

Provisional Dimensions

Each record in all RAA `AG2_*` tables contains several columns that store foreign keys to various Info Mart dimensions. The structure of dimension tables in a 7.6 Info Mart differs slightly from dimension structure in an 8.1 Info Mart. In preparation for migrating 7.6 aggregate data, the migration utility creates two sets of provisional dimension tables to identify and store dimensional data in a format that RAA 8.1 recognizes.

Input Dimension Tables

The migration utility creates a set of *provisional input tables* in the Info Mart 8.1 schema to store dimension data from the 7.6 environment in an RAA 8.1-familiar format. These tables share the same name as their the source dimensions with the `G76_ prefix`. For example, `G76_GROUP_` is the temporary input table for the `GROUP_` dimension.

Mapping Dimension Tables

The migration utility next calls `Job_Migrate76Dim` to create yet another set of temporary tables. These are *provisional mapping tables* that define how the 7.6 dimension keys correspond to the 8.1 dimension keys. The tables share a similar name to their source input tables only mapping tables use the `G76_MAP_` prefix. For example, `G76_MAP_GROUP_` is the temporary mapping table for the `G76_GROUP_` input table.

Job_Migrate76Dim in an internal job that focuses only on the subset of dimensions that are directly associated with RAA 8.1. This job is not documented elsewhere and is not manageable from within the Genesys Info Mart Administration Console.

It is this set of provisional mapping tables that the migration utility eventually references as it inserts 7.6 data into 8.1 tables.

Listing of Temporary Dimension Tables

Table 181 lists both the input and mapping tables that the migration utility and Job_Migrate76Dim create.

Table 181: Temporary Migration Tables

Input Tables	Mapping Tables
G76_GROUP_	G76_MAP_GROUP_
G76_INTERACTION_DESCRIPTOR	G76_MAP_INTERACTION_DESCRIPTOR
G76_RESOURCE_	G76_MAP_RESOURCE_
G76_RESOURCE_GROUP_COMBINATION	G76_MAP_RESOURCE_GROUP_COMB
G76_RESOURCE_STATE	G76_MAP_RESOURCE_STATE
G76_RESOURCE_STATE_REASON	G76_MAP_RESOURCE_STATE_REASON
G76_TENANT	G76_MAP_TENANT
G76_DATE_TIME	G76_MAP_DATE_TIME_KEY
*	G76_MAP_TIME_RANGE

*.The migration utility does not create an input table for the TIME_RANGE dimension; Job_MigrationDim directly maps 7.6 to 8.1 keys using TIME_RANGE as the source input table.

The aggregate tables in RAA 8.1 schema store foreign keys to the MEDIA_TYPE and INTERACTION_TYPE dimensions. The comparable tables in GIM 7.6 contain no such keys because they were not necessary for this release; the only fact data that is aggregated is that which pertains to inbound voice activity. No special layout or mapping, however, is required for these tables. The migration utility supplies the appropriate INTERACTION_TYPE_KEY and MEDIA_TYPE_KEY values for all migrated aggregates.

The migration utility leaves behind all temporary tables for debugging purposes, if they are needed. When you are satisfied that migration was conducted successfully, you can safely drop these tables.

Refer to page 1137 to read about some limitations that are associated with migrating dimensions and to the *Genesys Info Mart Database Compatibility Reference* for information about how dimension table structures and key values have changed between the 7.6 and 8.1 releases.

Setting Environment Variables for Migration

Located at the beginning of the migration script are several environment variables that you must set before you run the script. Table 182 describes each variable.

Table 182: Parameters of the Migration Script

Parameter	Description
GIM81_CME_HOST	The name of the host on which Configuration Server is running.
GIM81_CME_PORT	The communication port that GIM 8.1 uses to connect to Configuration Server.
GIM81_CME_APP	The name of the GIM 8.1 `Application` object as defined within Configuration Server.
GIM76_OBJ_PREFIX	The prefix that enables GIM 7.6 objects to be visible from the GIM 8.1 schema/database by using GIM 8.1 credentials. The utility uses this parameter to qualify GIM 7.6 objects. Examples: Microsoft SQL `<Database>.<Schema>.` or `<DATABASE>..` if the schema is default-mapped Oracle `<Schema>.`
GIM76_OBJ_SUFFIX	The suffix that enables GIM 7.6 objects to be visible from the GIM 8.1 schema/database by using GIM 8.1 credentials. This value cannot contain double quotation marks ("). This can be used to facilitate database links in Oracle. Do not set this parameter unless you are otherwise instructed to do so by Genesys Technical Support.
GIM81_URL	The JDBC URL of Info Mart 8.1 schema. The value of this parameter must be quoted.
GIM81_USER	The account that is used to log into GIM 8.1, such as the database or schema owner.
GIM81_PASS	The password of the account that is specified by `GIM81_USER`.

JAVACMD	The path to the Java executable file.
	Examples:
	`set JAVACMD=java.exe`
	`set JAVACMD="c:\Program Files\Java\jdk1.6.0_17\bin\java.exe"`

Table 182: Parameters of the Migration Script (Continued)

Parameter	Description
START_DATETIME_KEY	The value of the DATE_TIME key that indicates the beginning of the targeted range of data to migrate.
END_DATETIME_KEY	The value of the DATE_TIME key that indicates the end of the targeted range of data to migrate. This becomes the aggregation high-water mark. **Note:** The migration utility uses the END_DATE_TIME_KEY key that is associated with the end of the day that you choose.

Migration Hierarchies

The *Reporting and Analytics Aggregates 8.1 User's Guide* describes the aggregation hierarchies that are deployed with RAA. During migration of 7.6 aggregate data to 8.1, the following parallel migration hierarchies are created for the utility's exclusive use:

- MIGRATE_AGENT
- MIGRATE_AGENT_GRP
- MIGRATE_AGENT_QUEUE
- MIGRATE_I_AGENT
- MIGRATE_I_SESS_STATE
- MIGRATE_I_STATE_RSN
- MIGRATE_ID
- MIGRATE_QUEUE
- MIGRATE_QUEUE_ABN
- MIGRATE_QUEUE_ACC_AGENT
- MIGRATE_QUEUE_GRP

After migration completes, RAA does not reference these hierarchies further. 7.6 aggregate data folds seamlessly into the 8.1 schema and can be retrieved in the same manner in which RAA 8.1–generated data is retrieved.

Mapping of Aggregate Tables

The 7.6 aggregate tables have different table names in 8.1. This renaming was conducted to remove the emphasis of inbound voice activity that was represented in 7.6 table naming. The AG2_INB_V_IXN_AGENT_HOUR aggregate table in 7.6, for example, was renamed AG2_AGENT_HOUR beginning with the initial RAA 8.0 release. This table (as well as all other aggregate entities) in the 8.1 release, stores data that encompasses additional interaction types that are associated with more than just voice media.

For similar reasons, nearly all 7.6 columns were renamed in 8.1. The "How Media-Neutral Measures Map to Call-Centric Terminology" section in the *Genesys Interactive Insights 8.1 User's Guide* summarizes the changes to column names.

Table 183 shows the columns of each 7.6 aggregate table that is targeted for migration and, for RAA 8.1 aggregates, the corresponding table column(s) to

which each 7.6 column is mapped. This information is provided so that you can understand to where 7.6 data is migrated within the 8.1 schema. For simplicity, the following administrative-type columns—which are present in all 7.6 aggregate tables—do not appear in Table 183, because comparable columns do not exist in any of the 8.1 aggregate tables:

- SOURCE_ROW_COUNT
- BATCH_ID
- PURGE_FLAG
- CREATE_AUDIT_KEY
- UPDATE_AUDIT_KEY
- GMT_ROW_CREATED_TIME
- GMT_ROW_UPDATED_TIME

On the left-hand side, Table 183 otherwise lists all of the columns in the order in which they appear in the 7.6 aggregate-table schema. On theright-hand side, Table 183 lists only those columns to which 7.6 columns are mapped in 8.1. Note that neither the full 8.1 table schema is represented in Table 183 nor the 8.1 columns are listed in the same order in which they appear in the schema. You can refer to the *Reporting and Analytics Aggregates 8.1 Reference Manual* for a listing and description of the complete 8.1 schema. The utility assigns the value of zero (`0`) to any unmapped 8.1 column.

This mapping information is also available in flat Scheme files (prefaced with `76migrate-`) that are located within the `\agg\GIMagg.jar` Java archive.

Unless otherwise explicitly called out, the same mapping applies to all tables in a particular hierarchy. For example, the mapping information that is shown about the first group of tables applies equally to all of the following tables that belong to the `AG2_INB_V_I_SESS_STATE` (7.6) and `AG2_I_SESS_STATE` (8.1) hierarchies:

- AG2_INB_V_I_SESS_STATE_SUBHR
- AG2_INB_V_I_SESS_STATE_HOUR
- AG2_INB_V_I_SESS_STATE_DAY
- AG2_INB_V_I_SESS_STATE_MONTH (view)
- AG2_I_SESS_STATE_SUBHR
- AG2_I_SESS_STATE_HOUR
- AG2_I_SESS_STATE_DAY
- AG2_I_SESS_STATE_MONTH

Lastly, some columns in 8.1 can be derived from the values of two or more 7.6 columns. Where this is the case, this information is annotated at the end of the table.

Note: The RAA 8.1.1 release introduced several `_80` columns to Info Mart schema, to store threshold data that is generated using release 8.0.*x* or 8.1.0*x* (hereafter referred to as 8.1.0-) configuration. Under no circumstances does this migration utility migrate data to those columns. If you have release 8.1.0 of the migration utility, it migrates 7.6 data to the base columns; for example, `TOTAL_SHORT_ABANDONED_COUNT` is mapped to `ABANDONED_SHORT`. If you have release 8.1.1 of the migration utility, the same applies.

Refer to "Updating Thresholds in Upgraded Environments" in the "Purview of Genesys Interactive Insights Migration" chapter of this guide for information on the subject.

Table 183: Mapping of 7.6 Aggregate Tables to 8.1

7.6 Aggregate Table		8.1 Aggregate Table	
Table	**Column**	**Column**	**Table**
AG2_INB_V_I_SESS_STATE_*	STD_TENANT_DATE_TIME_KEY	DATE_TIME_KEY	AG2_I_SESS_STATE_*
	TENANT_KEY	TENANT_KEY	
	RESOURCE_KEY	RESOURCE_KEY	
	GROUP_COMBINATION_KEY	GROUP_COMBINATION_KEY	
	TOTAL_LOGIN_SESSION_DURATION	ACTIVE_TIME	
	TOTAL_LOGGED_IN_DURATION	--	
	TOTAL_READY_COUNT	READY	
	TOTAL_READY_DURATION	READY_TIME	
	TOTAL_NOT_READY_COUNT	NOT_READY	
	TOTAL_NOT_READY_DURATION	NOT_READY_TIME	
	TOTAL_BUSY_COUNT	BUSY	
	TOTAL_BUSY_DURATION	BUSY_TIME	
	TOTAL_ACW_COUNT	WRAP	
	TOTAL_ACW_DURATION	WRAP_TIME	
	TOTAL_ACW_INCALL_COUNT	WRAP_IN	AG2_I_AGENT_*
	TOTAL_ACW_INCALL_DURATION	WRAP_IN_TIME	
	TOTAL_ACW_OUTCALL_COUNT	WRAP_OUT	
	TOTAL_ACW_OUTCALL_DURATION	WRAP_OUT_TIME	
	TOTAL_NR_INCALL_COUNT	NOT_READY_IN	
	TOTAL_NR_INCALL_DURATION	NOT_READY_IN_TIME	
	TOTAL_NR_OUTCALL_COUNT	NOT_READY_OUT	
	TOTAL_NR_OUTCALL_DURATION	NOT_READY_OUT_TIME	

Table 183: Mapping of 7.6 Aggregate Tables to 8.1 (Continued)

7.6 Aggregate Table		8.1 Aggregate Table	
Table	**Column**	**Column**	**Table**
AG2_INB_V_I_IXN_AGENT_*	STD_TENANT_DATE_TIME_KEY	DATE_TIME_KEY	AG2_I_AGENT_*
	TENANT_KEY	TENANT_KEY	
	RESOURCE_KEY	RESOURCE_KEY	
	GROUP_COMBINATION_KEY	GROUP_COMBINATION_KEY	
	TOTAL_INTERACTION_COUNT	OFFERED	
	TOTAL_ANSWERED_COUNT	ACCEPTED	
	TOTAL_HOLD_COUNT	HOLD	
	TOTAL_ACW_COUNT	WRAP	
	TOTAL_ALERT_DURATION	--	
	TOTAL_DIALING_DURATION	--	
	TOTAL_TALK_DURATION	ENGAGE_TIME	
	TOTAL_HOLD_DURATION	HOLD_TIME	
	TOTAL_ACW_DURATION	WRAP_TIME	
	TOTAL_RCV_CONS_RING_DURATION	--	
	TOTAL_RCV_CONS_TALK_DURATION	CONSULT_RECEIVED_ENGAGE_TIME	
	TOTAL_RCV_CONS_TALK_COUNT	CONSULT_RECEIVED_ACCEPTED	
	TOTAL_RCV_CONS_HOLD_DURATION	CONSULT_RECEIVED_HOLD_TIME	
	TOTAL_RCV_CONS_HOLD_COUNT	CONSULT_RECEIVED_HOLD	
	TOTAL_RCV_CONS_ACW_DURATION	CONSULT_RECEIVED_WRAP_TIME	
	TOTAL_RCV_CONS_ACW_COUNT	CONSULT_RECEIVED_WRAP	
	TOTAL_LOGIN_SESSION_DURATION	--	
	TOTAL_ALERT_DURATION + TOTAL_DIALING_DURATION	INVITE_TIME	
AG2_INB_V_I_STATE_RSN_*	STD_TENANT_DATE_TIME_KEY	DATE_TIME_KEY	AG2_I_STATE_RSN_*
	TENANT_KEY	TENANT_KEY	
	RESOURCE_KEY	RESOURCE_KEY	
	RESOURCE_STATE_KEY	RESOURCE_STATE_KEY	
	RESOURCE_STATE_REASON_KEY	RESOURCE_STATE_REASON_KEY	
	GROUP_COMBINATION_KEY	GROUP_COMBINATION_KEY	
	TOTAL_STATE_RSN_COUNT	STATE_RSN	
	TOTAL_STATE_RSN_DURATION	STATE_RSN_TIME	

Table 183: Mapping of 7.6 Aggregate Tables to 8.1 (Continued)

7.6 Aggregate Table		8.1 Aggregate Table	
Table	**Column**	**Column**	**Table**
AG2_INB_V_IXN_AGENT_*, AG2_INB_V_IXN_AGENT_GRP_*	STD_TENANT_DATE_TIME_KEY	DATE_TIME_KEY	**AG2_AGENT_*, AG2_AGENT_GRP_***
	TENANT_KEY	TENANT_KEY	
	RESOURCE_KEY	RESOURCE_KEY	
	GROUP_KEY†	GROUP_KEY‡	
	GROUP_COMBINATION_KEY†	GROUP_COMBINATION_KEY‡	
	INTERACTION_DESCRIPTOR_KEY	INTERACTION_DESCRIPTOR_KEY	
	TOTAL_ANSWERED_COUNT	ACCEPTED RESPONSES INVITE	
	TOTAL_RING_DURATION	INVITE_TIME	
	TOTAL_TALK_DURATION	ENGAGE_TIME	
	TOTAL_TALK_COUNT	ENGAGE	
	TOTAL_HOLD_DURATION	HOLD_TIME	
	TOTAL_HOLD_COUNT	HOLD	
	TOTAL_ACW_DURATION	WRAP_TIME	
	TOTAL_ACW_COUNT	WRAP	
	TOTAL_SHORT_TALK_COUNT	SHORT	
	TOTAL_ABANDONED_RINGING_COUNT	ABANDONED_INVITE	
	TOTAL_RONA_COUNT	REJECTED	
	TOTAL_RCV_CONS_RING_DURATION	--	
	TOTAL_RCV_CONS_TALK_DURATION	CONSULT_RECEIVED_ENGAGE_TIME	
	TOTAL_RCV_CONS_TALK_COUNT	CONSULT_RECEIVED_ACCEPTED CONSULT_RESPONSES	
	TOTAL_RCV_CONS_HOLD_DURATION	CONSULT_RECEIVED_HOLD_TIME	
	TOTAL_RCV_CONS_HOLD_COUNT	CONSULT_RECEIVED_HOLD	
	TOTAL_RCV_CONS_ACW_DURATION	CONSULT_RECEIVED_WRAP_TIME	
	TOTAL_RCV_CONS_ACW_COUNT	CONSULT_RECEIVED_WRAP	
	TOTAL_CONF_INITIATED_COUNT	CONFERENCE_INITIATED	
	TOTAL_CONF_RECEIVED_COUNT	CONFERENCE_RECEIVED_ACCEPTED	
	TOTAL_TRANSFER_INITIATED_COUNT	TRANSFER_INIT_AGENT	
	TOTAL_ABANDONED_RINGING_COUNT + TOTAL_RONA_COUNT	NOTACCEPTED	
	TOTAL_ANSWERED_COUNT + TOTAL_ABANDONED_RINGING_COUNT + TOTAL_RONA_COUNT	OFFERED	

† `GROUP_KEY` appears in `AG2_INB_IXN_AGENT_*`, whereas `GROUP_COMBINATION_KEY` appears in `AG2_INB_V_IXN_AGENT_GRP_*`.

‡ `GROUP_KEY` appears in `AG2_AGENT_*`, whereas `GROUP_COMBINATION_KEY` appears in `AG2_AGENT_GRP_*`.

Table 183: Mapping of 7.6 Aggregate Tables to 8.1 (Continued)

7.6 Aggregate Table		8.1 Aggregate Table	
Table	**Column**	**Column**	**Table**
AG2_INB_V_AGENT_QUEUE_*	STD_TENANT_DATE_TIME_KEY	DATE_TIME_KEY	AG2_AGENT_QUEUE_*
	TENANT_KEY	TENANT_KEY	
	AGENT_RESOURCE_KEY	AGENT_RESOURCE_KEY	
	QUEUE_RESOURCE_KEY	QUEUE_RESOURCE_KEY	
	QUEUE_GROUP_COMBINATION_KEY	QUEUE_GROUP_COMBINATION_KEY	
	AGENT_GROUP_COMBINATION_KEY	AGENT_GROUP_COMBINATION_KEY	
	INTERACTION_DESCRIPTOR_KEY	INTERACTION_DESCRIPTOR_KEY	
	TOTAL_ANSWERED_COUNT	ACCEPTED OFFERED RESPONSES INVITE	
	TOTAL_RING_DURATION	INVITE_TIME	
	TOTAL_TALK_DURATION	ENGAGE_TIME	
	TOTAL_TALK_COUNT	ENGAGE	
	TOTAL_HOLD_DURATION	HOLD_TIME	
	TOTAL_HOLD_COUNT	HOLD	
	TOTAL_ACW_DURATION	WRAP_TIME	
	TOTAL_ACW_COUNT	WRAP	
	TOTAL_RCV_CONS_RING_DURATION	--	
	TOTAL_RCV_CONS_TALK_DURATION	CONSULT_RECEIVED_ENGAGE_TIME	
	TOTAL_RCV_CONS_TALK_COUNT	CONSULT_RECEIVED_ACCEPTED CONSULT_RESPONSES	
	TOTAL_RCV_CONS_HOLD_DURATION	CONSULT_RECEIVED_HOLD_TIME	
	TOTAL_RCV_CONS_HOLD_COUNT	CONSULT_RECEIVED_HOLD	
	TOTAL_RCV_CONS_ACW_DURATION	CONSULT_RECEIVED_WRAP_TIME	
	TOTAL_RCV_CONS_ACW_COUNT	CONSULT_RECEIVED_WRAP	

Table 183: Mapping of 7.6 Aggregate Tables to 8.1 (Continued)

7.6 Aggregate Table		8.1 Aggregate Table	
Table	**Column**	**Column**	**Table**
AG2_INB_V_QUEUE_*, AG2_INB_V_QUEUE_GRP_*	STD_TENANT_DATE_TIME_KEY	DATE_TIME_KEY	**AG2_QUEUE_*, AG2_QUEUE_GRP_***
	RESOURCE_KEY*	RESOURCE_KEY*	
	TENANT_KEY	TENANT_KEY	
	GROUP_COMBINATION_KEY†	GROUP_COMBINATION_KEY‡	
	GROUP_KEY†	GROUP_KEY‡	
	TOTAL_ENTERED_COUNT	ENTERED	
	TOTAL_ABANDONED_COUNT	ABANDONED	
	TOTAL_SHORT_ABANDONED_COUNT	ABANDONED_SHORT	
	TOTAL_DISTRIBUTED_COUNT	DISTRIBUTED_	
	TOTAL_DIVERTED_COUNT	CLEARED	
	TOTAL_ANSWERED_COUNT	ACCEPTED	
	TOTAL_ANSWERED_BY_AGENT_COUNT	INVITE	
	TOTAL_ABANDONED_RINGING_COUNT	ABANDONED_INVITE	
	TOTAL_REDIRECTED_COUNT	REDIRECTED	
	TOTAL_ROUTED_OTHER_COUNT	ROUTED_OTHER	
	TOTAL_TIME_TO_DISTRIB_DURATION	DISTRIBUTED_TIME	
	MAX_TIME_TO_DISTRIB_DURATION	DISTRIBUTED_TIME_MAX	
	TOTAL_TIME_TO_DIVERT_DURATION	CLEARED_TIME	
	MAX_TIME_TO_DIVERT_DURATION	CLEARED_TIME_MAX	
	TOTAL_TIME_TO_ANSWER_DURATION	ACCEPTED_TIME	
	MAX_TIME_TO_ANSWER_DURATION	ACCEPTED_TIME_MAX	
	TOTAL_TIME_TO_ABANDON_DURATION	ABANDONED_TIME	
	MAX_TIME_TO_ABANDON_DURATION	ABANDONED_TIME_MAX	
	TOTAL_TIME_TO_S_ABN_DURATION	--	
	TOTAL_ANS_THRSHLD_COUNT	ACCEPTED_THR	
	TOTAL_ANS_AGENT_THRSHLD_COUNT	ACCEPTED_AGENT_THR	
	TOTAL_AGENT_RING_DURATION	INVITE_TIME	
	TOTAL_AGENT_TALK_DURATION	ENGAGE_TIME	
	TOTAL_AGENT_TALK_COUNT	--	
	TOTAL_AGENT_HOLD_DURATION	HOLD_TIME	
	TOTAL_AGENT_HOLD_COUNT	HOLD	
	TOTAL_AGENT_ACW_DURATION	WRAP_TIME	
	TOTAL_AGENT_ACW_COUNT	WRAP	
	TOTAL_AGENT_CONS_RCV_RNG_DUR	--	
	TOTAL_AGENT_CONS_RCV_TLK_DUR	CONSULT_RECEIVED_ENGAGE_TIME	
	TOTAL_AGENT_CONS_RCV_TLK_COUNT	CONSULT_ENTERED	
		CONSULT_RECEIVED_ACCEPTED	
		CONSULT_DISTRIBUTED	
		CONSULT_ACCEPTED	
		CONSULT_RECEIVED_INVITE	

Table 183: Mapping of 7.6 Aggregate Tables to 8.1 (Continued)

7.6 Aggregate Table		8.1 Aggregate Table	
Table	**Column**	**Column**	**Table**
AG2_INB_V_QUEUE_*, AG2_INB_V_QUEUE_GRP_*	TOTAL_AGENT_CONS_RCV_HLD_DUR	CONSULT_RECEIVED_HOLD_TIME	**AG2_QUEUE_*, AG2_QUEUE_GRP_***
	TOTAL_AGENT_CONS_RCV_HLD_COUNT	CONSULT_RECEIVED_HOLD	
	TOTAL_AGENT_CONS_RCV_ACW_DUR	CONSULT_RECEIVED_WRAP_TIME	
	TOTAL_AGENT_CONS_RCV_ACW_COUNT	CONSULT_RECEIVED_WRAP	
	TOTAL_AGENT_XFER_INIT_COUNT	TRANSFER_INIT_AGENT	
	TOTAL_ABANDONED_COUNT – TOTAL_SHORT_ABANDONED_COUNT	ABANDONED_STANDARD	
	TOTAL_TIME_TO_ABANDON_DURATION – TOTAL_TIME_TO_S_ABN_DURATION	ABANDONED_STANDARD_TIME	
AG2_INB_V_QUEUE_ABN_*	STD_TENANT_DATE_TIME_KEY	DATE_TIME_KEY	**AG2_QUEUE_ABN_***
	TENANT_KEY	TENANT_KEY	
	RESOURCE_KEY	RESOURCE_KEY	
	GROUP_COMBINATION_KEY	GROUP_COMBINATION_KEY	
	TIME_RANGE_KEY	TIME_RANGE_KEY	
	TOTAL_ABANDONED_COUNT	ABANDONED	
	TOTAL_ABANDONED_RANGE1_COUNT	ABANDONED_STI_1	
	TOTAL_ABANDONED_RANGE2_COUNT	ABANDONED_STI_2	
	TOTAL_ABANDONED_RANGE3_COUNT	ABANDONED_STI_3	
	...	...	
	TOTAL_ABANDONED_RANGE20_COUNT	ABANDONED_STI_20	
AG2_INB_V_QUEUE_ANS_*	STD_TENANT_DATE_TIME_KEY	DATE_TIME_KEY	**AG2_QUEUE_ACC_AGENT_***
	RESOURCE_KEY	RESOURCE_KEY	
	TENANT_KEY	TENANT_KEY	
	GROUP_COMBINATION_KEY	GROUP_COMBINATION_KEY	
	TIME_RANGE_KEY	TIME_RANGE_KEY	
	TOTAL_ANSWERED_BY_AGENT_COUNT	ACCEPTED_AGENT	
	TOTAL_ANSWERED_RANGE1_COUNT	ACCEPTED_AGENT_STI_1	
	TOTAL_ANSWERED_RANGE2_COUNT	ACCEPTED_AGENT_STI_2	
	TOTAL_ANSWERED_RANGE3_COUNT	ACCEPTED_AGENT_STI_3	
	...	...	
	TOTAL_ANSWERED_RANGE20_COUNT	ACCEPTED_AGENT_STI_20	

† AG2_INB_V_QUEUE_GRP_* uses GROUP_KEY. AG2_INB_V_QUEUE_* uses GROUP_COMBINATION_KEY.

‡ AG2_QUEUE_GRP_* uses GROUP_KEY. AG2_QUEUE_* uses GROUP_COMBINATION_KEY.

Table 183: Mapping of 7.6 Aggregate Tables to 8.1 (Continued)

7.6 Aggregate Table		8.1 Aggregate Table	
Table	**Column**	**Column**	**Table**
AG2_INB_V_IXN_ID_*	STD_TENANT_DATE_TIME_KEY	DATE_TIME_KEY	AG2_ID_*
	TENANT_KEY	TENANT_KEY	
	INTERACTION_DESCRIPTOR_KEY	INTERACTION_DESCRIPTOR_KEY	
	TOTAL_ENTERED_COUNT	ENTERED FINISHED	
	TOTAL_ENTERED_OBJ_COUNT	ENTERED_OBJ_RES	
	TOTAL_ABANDONED_COUNT	ABANDONED	
	TOTAL_SHORT_ABANDONED_COUNT	SHORT_ABANDONED	
	TOTAL_ANSWERED_COUNT	ACCEPTED RESPONSES RESPONDED FINISHED_RESPONSE	
	TOTAL_ANSWERED_WITHIN_COUNT	RESPONDED_THR	
	TOTAL_ANSWERED_BY_AGENT_COUNT	ACCEPTED_AGENT	
	TOTAL_ANSWER_WAIT_DURATION	ACCEPT_TIME	
	TOTAL_ABANDON_WAIT_DURATION	ABANDONED_TIME	
	TOTAL_S_ABANDON_WAIT_DURATION	--	
	TOTAL_TALK_DURATION	ENGAGE_TIME	
	TOTAL_TALK_COUNT	ENGAGE	
	TOTAL_HOLD_DURATION	HOLD_TIME	
	TOTAL_HOLD_COUNT	HOLD	
	TOTAL_ACW_DURATION	WRAP_TIME	
	TOTAL_ACW_COUNT	WRAP	
	TOTAL_RCV_CONS_RING_DURATION	--	
	TOTAL_RCV_CONS_TALK_COUNT	CONSULT_RECEIVED_ACCEPTED CONSULT_RESPONSES	
	TOTAL_RCV_CONS_TALK_DURATION	CONSULT_RECEIVED_ENGAGE_TIME	
	TOTAL_RCV_CONS_HOLD_DURATION	CONSULT_RECEIVED_HOLD_TIME	
	TOTAL_RCV_CONS_HOLD_COUNT	CONSULT_RECEIVED_HOLD	
	TOTAL_RCV_CONS_ACW_DURATION	CONSULT_RECEIVED_WRAP_TIME	
	TOTAL_RCV_CONS_ACW_COUNT	CONSULT_RECEIVED_WRAP	
	TOTAL_TRANSFER_INITIATED_COUNT	TRANSFER_INIT_AGENT	
	MAX_TIME_TO_ANSWER	ACCEPT_TIME_AGENT_MAX	
	MAX_TIME_TO_ABANDON	ABANDONED_TIME_MAX	

The Migration Procedure

After you have met the prerequisites, weighed the recommendations, and studied the limitations, perform the following steps to execute the migration utility:

1. Configure and install Genesys Info Mart 8.1 and its associated Interaction Concentrator (ICON) data source(s), as instructed in the *Genesys Info Mart 8.1 Deployment Guide* observing the One Time Zone Only limitation described on page 1137.

   When you configure the Genesys Info Mart 8.1 `Application` object, make sure that the values of date-related configuration options are consistent with GIM 7.6 calendar settings to prevent mixed results within the same reporting interval.

   In particular, ensure that, in your GIM 8.1 `Application` object, the:

   - Setting of `[date-time] date-time-tz` matches the setting of `[gim-etl-tenant] std-tenant-time-zone` in your GIM 7.6 `Application` object.
   - `[date-time] date-time-start-year` option is set to the earliest year for which aggregate 7.6 data exists. Because GIM 7.6 enabled users to purge data from one set of aggregate tables and not from another, you might have to query all aggregate tables for the lowest value.
   - `[date-time] first-day-of-week` option is set to `1`.
   - `[date-time] simple-week-numbering` option is set to `true`.

   For more information about calendar-related options that were provided in either the GIM 7.6 or the GIM 8.1 release, refer to the respective *Genesys Info Mart Deployment Guide*.

   Note: In GIM 8.1, calendar dimensions are populated when the Info Mart database is initialized. For information about subsequently changing calendar-related options without compromising data consistency, see the information about changing calendar settings during runtime in the *Genesys Info Mart 8.1 Operations Guide*.

2. Verify that Genesys Info Mart 8.1 is operational:
   a. Start the Genesys Info Mart Server.
   b. Open the Genesys Info Mart Administration Console and review the status of `Job_InitializeGIM` to verify successful database initialization. (This job runs only once upon first start.)
   c. Review the logs to verify that the deployment is complete and that configuration is correct.
   d. (Recommended) Execute at least one ETL cycle, and verify that `Job_ExtractGIM` and `Job_TransformGIM` have extracted and loaded all initial content from the configured ICON instance(s).

3. If you are a GI2 customer, install GI2 8.1; if you are not, install the Reporting and Analytics Aggregates (RAA) 8.1 option of GIM and configure it appropriately.

   Note: Installing GI2 automatically deploys RAA. The migration utility is part of the RAA 8.1 installation package.

4. Choose two keys from the `DATE_TIME` table that mark the range of data that is to be migrated. For those records that you want to migrate, one key should represent the earliest point (`START_DATETIME_KEY`) for which data exists; the other key should represent the latest (`END_DATETIME_KEY`).

   `END_DATETIME_KEY` will serve as the cutover date and time. This key marks the point in time up to which production aggregate data will be:
   - Migrated from the 7.6 environment.
   - Purged from the 8.1 aggregate tables.

   The cutover time also serves as the high-water mark for aggregated data. After migration, it is not possible to reaggregate fact data that is earlier than the cutover time.

   "Determining Start and End DATE_TIME Keys" in the *Reporting and Analytics Aggregates 8.1 User's Guide* provides instructions on how to match a date and time with a key.

5. In GIM 7.6, run the ETL cycles as you normally would to extract, transform, and load any backlog of data from source databases until all backlogged data has been processed.

6. If data still exists in GIM 7.6 `FACT` tables that has not been aggregated, push it to the 7.6 aggregate tables, as follows:
   a. Stop the Genesys Info Mart 7.6 scheduler by setting the `run-scheduler` configuration option to `false` in the [`schedule`] section of the Genesys Info Mart 7.6 `Application` object. This will prevent the GIM Server from running 7.6 ETL jobs automatically.
   b. Use the Genesys Info Mart Administration Console to run a final ETL cycle manually with the 7.6 jobs, including:
      - The data extraction jobs that you normally schedule (`Job_Extract ICON`, `Job_ExtractSS`, and `Job_ExtractGVP`, as applicable).
      - `Job_TransformGIM`.
      - `Job_LoadRecent`.
   c. Use the Genesys Info Mart Administration Console 7.6 to run the 7.6 daily jobs that you normally schedule:
      - `Job_LoadGIM`—This step moves all data from the intraday fact tables (with the exception of active e-mail interactions) to the historical fact tables.
      - `Job_AggregateGIM`.
      - `Job_MaintainGIM`.

   d. Check that all jobs completed successfully.

7. Stop the GIM 8.1 server process. (Note that ICON can continue running.)
8. **Optional:** Back up your 8.1 Info Mart database.
9. On the `Connections` tab of your GIM 8.1 `Application` object, add a connection to the GIM 7.6 `Application` object temporarily.
10. Update the migration script (`76agg_migrate.bat` or `76agg_migrate.sh`) that is deployed within the RAA installation package to set the parameters listed in Table 182 on page 1124. For `START_DATETIME_KEY` and `END_DATETIME_KEY`, use the values that you identified in Step 4.
11. At an appropriate time, run the migration script from the command line.

    Consider running the script during a maintenance window when neither GIM 7.6 nor GIM 8.1 are running extraction or transformation jobs.

    You can monitor the progress of migration by reviewing its log. Instead of referencing the standard hierarchy names, you might notice references to special migration hierarchies (see page 1125) in the log.
12. Upon completion, review both the GIM and aggregation logs for error.

    The aggregation log is named `76agg_migrate.log`; it is located in the directory where aggregation migration was invoked. It will report either of the following to indicate successful completion or abnormal termination:

    - `Migration complete`
    - `Migration aborted`

    Some high-level messages are also output to the console.
13. When migration completes and you have verified its results:
    - Remove the GIM 7.6 application from the `Connections` tab of the GIM 8.1 `Application` object.
    - (Optional) Drop the temporary dimension and mapping tables that are listed in Table 181 on page 1123.
    - If you are concerned about security, remove the password (assigned to the `GIM81_PASS` environment variable) from the migration script.
14. Verify that the GIM 8.1 scheduling-related configuration options are set appropriately for normal operation in your deployment, and start GIM 8.1.

    If you also wish to resume GIM 7.6 operation, you can restart the GIM 7.6 scheduler at this time.

After migration, your 8.1 schema will have both 7.6 and 8.1 aggregate data and you will be able to view data from both releases together within the same report.

Limitations

Active Interaction Activity Is Not Aggregated

For active interactions, activity that started before cutover and completed after cutover will not be aggregated in GIM 8.1. However, new handling activity that is associated with the active interaction after cutover will be aggregated. For example, mediation in a queue or attempts to distribute the interaction to a handling resource, both before and after cutover, will not be aggregated, but successful distribution to an agent after cutover will be included in GIM 8.1 aggregates. Interactions that were active at cutover are not counted in GIM 8.1 disposition-based aggregates (the measures that report interaction activity based on the start time of handling or mediation).

One Time Zone Only

GI2 8.1 and RAA 8.1 both support one time zone only. If, in your GIM 7.6 multi-tenant environment, you overrode the standard tenant time zone by configuring different time zones for one or more tenants (found on the `Annex` tab of each tenant object's properties), then, after successful migration, the results for one reporting interval will mix together results from more than one time zone.

Separate Migration for Individual Tenants Not Possible

This utility does not enable you to migrate data on a tenant-by-tenant basis. As well as mapping calendar dimensions to a single `DATE_TIME` table, the migration utility uses a single time range and aggregation high-water mark. In a multi-tenant deployment, it is not possible to migrate individual tenants separately.

Custom UserData Is Not Migrated

Five aggregation hierarchies in the 8.1 schema support aggregation of custom UserData whereas this feature is not supported in 7.6. For all records that are written to the 8.1 schema, the migration utility assigns a value of `-2` (for unspecified) to the `USER_DATA_KEY1` and `USER_DATA_KEY2` fields. Refer to "Configuring UserData for Aggregation" in the *Reporting and Analytics Aggregates User's Guide* for information about the hierarchies that support UserData.

Not All 7.6 Aggregate Tables Are Migrated

Migration of the first-generation of aggregation tables that are used for CCPulse+ and are prefaced with `AG_*` is not covered by RAA migration. Only the second-generation aggregation tables—and only those that are prefaced with `AG2_V_INB_*`—are covered along with their supporting dimensions. Also, users who have built their own custom aggregates are not part of the target audience for this migration.

No Aggregation Views that Are Based on Details

Only data within table constructs is migrated to 8.1.*x*. Following migration, the data that is retrieved by `AG2_*_SUBHR` views will be void of 7.6 data because these views are based on detail data that is sourced from GIM's `FACT` tables. As part of the Genesys Info Mart 8.1 release, migration of data within the `FACT` tables is not supported.

Data for Detail Reports Is Not Migrated

Likewise, as the focus of the aggregates migration utility is centered around migrating data in the aggregate tables, custom and GI2 reports that are based on detail 7.6 data will not be available for reporting by RAA 8.1/GI2 8.1. Among such reports include the following, which were available in GI2 7.6:

- Interaction Flow Report.
- Interaction Handling Attempt Report.
- Agent Login-Logout Details Report.
- Agent State Details Report.

Change in Measure Definitions

All measures whose definitions changed between 7.6 and 8.1 will be migrated as they were defined in 7.6. These measures—and there are more than a few—might not be directly comparable to the definitions that are employed by RAA 8.1. No computations or adjustments are made to reconcile values with the definitions employed by 8.1 measures.

Here are three examples that illustrate differences between the two families of releases:

- In GIM 7.6, the `NOT_READY` and `NOT_READY_TIME` fields in the `AG2_I_SESS_STATE_*` family of tables and views, by default, store counts and durations for the "No Reason" `NotReady` reason code. In GIM 8.1, however, if an agent had no reason for placing his device in the `NotReady` state, the GIM Server will not assign the "No Reason" `NotReady` reason code to this state because this value does not exist in 8.1.
- Semi-additive columns in the interval-based tables are no longer additive when the data that reports yield contains a mixture of data that originated from both 7.6 and 8.1 environments.
- In the 7.6 aggregates, the `TOTAL_RING_DURATION` measure captures ring duration exclusively. The measure to which `TOTAL_RING_DURATION` is mapped in 8.1 is `INVITE_TIME`, which, in 8.1, also captures dial duration.

Contact your Genesys account representative for information about which measure definitions have changed between the releases. The 7.6 and 8.1 versions of the *Genesys Interactive Insights Universe Guide* also provide definitions of measures as they were defined in these releases.

It might also help to understand the functional changes that occurred between Genesys Info Mart releases. Refer to Appendix E in the *Genesys Info Mart 8.0 Deployment Guide* for general information about the functional changes that occurred between GIM 7.6 and GIM 8.0 and the "New in This Release" section of the *Genesys Info Mart 8.1 Deployment Guide.* for the changes that occurred between GIM 8.0 and GIM 8.1.

Running Migration More than Once

You can run the migration utility for the same time period as many times as you want. The migration utility drops the temporary dimension-mapping tables that it needs before it populates them and re-migrates 7.6 data for a selected time interval. However, be aware that the migration utility deletes existing 8.1 aggregate data up to the cutover before it migrates the 7.6 data.

You might have to rerun the migration utility if it did not complete running the first time—for example, if a connection failed or the utility was interrupted.

Part

19 Genesys Interactive Insights Migration

This Part describes migration of Genesys Interactive Insights (GI2) to release 8.*x*. The information is provided in the following chapter:

Chapter 57, “Overview of Genesys Interactive Insights Migration,” on page 1141.

Chapter

57 Overview of Genesys Interactive Insights Migration

Migration of Genesys Interactive Insights (GI2) from 7.*x* to 8.*x* consists of:

- upgrading the GI2 universe.
- reinstalling the GI2 application.
- upgrading the GI2 reports, and/or migrating the data in the aggregate tables and associated dimensions.

Migration of GI2 from an earlier 8.*x* release to the latest 8.*x* release automatically upgrades the aggregation schema when aggregation is run for the first time. Special attention, however, is required for reconfiguration of thresholds beginning with release 8.1.1, and this is discussed in this chapter. This chapter describes the upgrade of GI2 components and contains the following sections:

In addition, GI2 has other product dependencies, which, in and of themselves, must be upgraded or installed in order for the latest GI2 release to function properly.

Also, the reports and universe elements are powered by SAP BusinessObjects Enterprise (BOE) XI 3.1 (in 8.x releases prior to 8.1.3) and SAP BusinessObjects Business Intelligence Platform (BI) 4.1 (in release 8.1.3 and later) software. The initial 7.6.0 release of GI2 was powered by BOE XI 3.0; so you must upgrade this software, and acquire a new BO license from

Genesys. Refer to the *BusinessObjects Enterprise Upgrade Guide* for instructions on how to upgrade this product. The interoperability of these products with the GI2 7.*x* and 8.*x* releases is described in the *Genesys Interactive Insights 7.6.x/8.x Release Advisory.*

Deployments of GI2 8.0 and later releases (8.0+) include the Reporting and Analytics Aggregates (RAA) component of Genesys Info Mart. Table 184 provides an overview of the steps required to migrate GI2 and RAA.

Table 184: GI2 and RAA Migration / Upgrade Overview

<table>
<tr><th></th><th>7.6 -> 8.1.x</th><th>8.x -> 8.1.0</th><th>8.x -> 8.1.1</th><th>*8.x-> 8.1.3</th><th>*8.x -> 8.1.4</th></tr>
<tr><td>Upgrading RAA</td><td colspan="3">Re-install RAA as described in Reporting and Analytics Aggregates 8.x Deployment Guide.</td><td>No action required.
(RAA release 8.1 does not require upgrading to work with GI2 release 8.1.3)</td><td>Re-install RAA as described in Reporting and Analytics Aggregates 8.x Deployment Guide</td></tr>
<tr><td>Migrating Genesys Info Mart aggregate data</td><td>Use the aggregation migration utility, as described in the “Migration of Genesys Info Mart 7.6 Aggregates” chapter of this guide.
Note: You can migrate from 7.6 directly to 8.0.x, 8.1.0, 8.1.1, or 8.1.3, but not from 7.6 to 8.1.104 (migrate to 8.1.103 instead).</td><td colspan="4">Automatic
(Migration of GI2 from an earlier 8.x release to the latest 8.x release automatically upgrades the aggregation schema when aggregation is run for the first time.)

Note: If you are upgrading from 7.6 to 8.1.4, to successfully migrate Genesys Info Mart aggregate data, you must first upgrade to GI2 release 8.1.1, and migrate Genesys Info Mart aggregate data using the migration utility before upgrading to 8.1.4.
Some features introduced in release 8.1.4 are available only in new installations of release 8.1.4 or later, including the integration of user_data keys within <tt>AG2_Queue_*</tt> aggregate tables, and the new aggregation storage mode, which is required to support the separation of online and offline media in aggregate tables.
Some improvements added in release 8.1.4 are also available in 8.1.1 releases beginning with 8.1.104.</td></tr>
<tr><td>Upgrading the GI2 universe</td><td colspan="5">Install the new universe.
Note: GI2 universes from various releases can coexist within a single BOE repository, which enables you to revisit older universes to compare object definitions with your new universe.</td></tr>
<tr><td>Upgrading the GI2 application</td><td colspan="5">Install the new GI2 release, as described in Genesys Interactive Insights 8.x Deployment Guide</td></tr>
</table>

Table 184: GI2 and RAA Migration / Upgrade Overview (Continued)

	7.6 -> 8.1.x	8.x -> 8.1.0	8.x -> 8.1.1	*8.x-> 8.1.3	*8.x -> 8.1.4
Migrating the GI2 reports	Run the Upgrade Utility, described in *Genesys Interactive Insights 8.x User's Guide*, then re-link the reports, as described in *Genesys Interactive Insights 8.x Deployment Guide.* Note: You can migrate from 7.6 to 8.0.x, 8.1.0, or 8.1.1, but not directly from 7.6 to 8.1.3, or 8.1.4.			No action required.	No action required.
*Upgrading GI2 from 8.1.0 or 8.1.1 to release 8.1.3 or 8.1.4 also requires that you upgrade from BO XI 3.1 to BI 4.1 as described in *Genesys Interactive Insights 8.x Deployment Guide.*					

General Changes Throughout the GI2 and RAA Releases

This section summarizes the changes that were introduced to both GI2 and RAA with each release.

Major Enhancements to GI2

Table 185 summarizes the major enhancements that are incorporated within each GI2 release. Table 186 summarizes changes in RAA functionality. Table 187 lists the changes in RAA configuration options following the initial RAA 8.0 release to the current 8.1.*x* release. Table 188 lists the changes in RAA parameters, following the initial RAA 8.1 release. Refer to the *Genesys Interactive Insights Release Notes* and the GI2 and RAA documentation sets for further details.

Table 185: Major Enhancements Introduced with Each GI2 Release

GI2 Release	Enhancement
7.6.000.26	Initial release.
7.6.001.01	Maintenance release that improved report performance and modified the aggregation function designations of a few measures in the `Agent State` and `Agent Interval` classes.

Table 185: Major Enhancements Introduced with Each GI2 Release (Continued)

GI2 Release	Enhancement
7.6.100.07	Release that added Customer Segment and Business Results reports, embedded the ability within all reports to specify a tenant, consolidated groups of measures, added predefined users and user groups, and renamed and repositioned some classes and their elements. All `..by VQ`, `..by Agent Group`, and `..by Queue Group` measures were discontinued as a result of measure consolidation.
7.6.200.09	Release that added `Summary` tabs to the majority of reports, release-specific subfolders that store the GI2 reports and universe, and five new reports and their supporting universe elements. This release also modified the definitions of the `% Service Level` and `Calls Answered` measures.
8.0.000.32	Release that expanded the scope of all measures to report outbound and internal interactions in addition to inbound interactions, and e-mail and chat interactions in addition to voice interactions. RAA is introduced in this release to store aggregate data as an independent option to Genesys Info Mart.
8.0.001.03	Release that provided automatic deployment of RAA.
8.0.100.05	Release that added access levels, the Customer Perspective Report, and the universe objects and reports to support Outbound Contact activity.
8.1.000.12	Release that added several new queue consult and call-progress detection measures to the universe and implements several report improvements. The `Queue` and `Business Attribute` classes were subdivided into separate consult measures from customer measures. This release also introduced the Interaction Volume Service Type Trend Report and the utility that migrates 7.6.*x* aggregate data to 8.*x*.
8.1.001.02 Rel	ease that modified the universe to accommodate improvements in the Agent Interval Based, Agent Outbound Campaign, and Agent Summary Activity reports and improved the design of all queue and agent reports to provide one main table—instead of several tables that previously were sectioned by agent or queue.

Table 185: Major Enhancements Introduced with Each GI2 Release (Continued)

GI2 Release	Enhancement
8.1.100.19	Release that added the `Transfer` class to the universe to house several new dimensions, conditions, and measures that support the Transfer Detail report. This release also introduced two social-media reports, the Agent Interaction Hierarchy report, supporting measures, and customization examples that illustrate the requisite configuration. Several new measures were added to the Customer Perspective report.
8.1.100.30	The performance of some detail reports was improved with the addition of hints on Oracle platforms. Report headers now display the actual date instead of a relative date (such as `Yesterday`).
8.1.100.31	First introduction of the French Language Pack for GI2.
8.1.101.05	The performance of GI2 aggregation was significantly improved in this release. Language Packs introduced for Chinese (simplified) and German.
8.1.101.06	Language Packs introduced for Portuguese (Brazilian), Spanish (Latin American), and Japanese.
8.1.102.02	Release that added a new user group with restricted access, improved the usability of reports through the addition of active hyperlinks in the Interaction Flow report, and improved performance of other reports.
8.1.103.03	Release that added two new views, `RESOURCE_STATE_REASON_GI2` and `INTERACTION_RESOURCE_STATE_GI2`, and for dimensions in the GI2 universe that use `ALL` as a predefined value, the list of values definitions now use SQL expressions that are automatically generated by the Business Objects engine.
8.1.104.01	Release in which some improvements associated with 8.1.4 were made available to 8.1.1 customers, including new integrated Data-Access Restrictions, and queue attached data.
8.1.300.03	Release in which SAP BusinessObjects Business Intelligence Platform 4.1 SP2 replaced SAP BusinessObjects Enterprise XI 3.1.

Table 185: Major Enhancements Introduced with Each GI2 Release (Continued)

GI2 Release	Enhancement
8.1.400.17	Release in which user_data keys are integrated within AG2_Queue_* aggregate tables. Also, new integrated Data-Access Restrictions capabilities are introduced, which enhance your ability to restrict access to objects within BO so that users see a limited set of data and reports.

Major Enhancements to RAA

The latest *Reporting and Analytics Aggregates Reference Manual* describes all of the tables and columns that are available in the RAA 8.1 release as well as the schema changes that were implemented from release to release. For a comparable description of the aggregate schema that is available in the latest 7.6 release, refer to the *Genesys Info Mart 7.6 Reference Manual.*

Table 186 summarizes changes in RAA functionality from its original release (8.0.000.32) to the initial 8.1.1 release.

Table 186: Major Enhancements Introduced with Each RAA Release

RAA Release	Enhancement
8.0.000.32	Initial release of RAA as an option to Genesys Info Mart. Prior Genesys Info Mart releases embedded the aggregation job and tables as a part of core Genesys Info Mart functionality. In this release, nearly all database columns were renamed from their 7.6 equivalents to embody media-neutral titles. Several new columns were added including warm-consult columns and internal I$ columns that are used for normalizing counts of interval-based measures.
8.0.1	Release in which aggregation tables that stored campaign-related activity (available originally in the 7.6 release) were added back to RAA schema. Revenue and customer-satisfaction measures (configured via attached data) were added to the AG2_AGENT_* and AG2_ID_* tables; and ENTERED and ABANDONED columns were added to the AG2_QUEUE_* tables to measure counts of interactions that are queued for consultation.
8.1.000.12	Release in which over 30 CONSULT_ measures were added to the AG2_QUEUE_* tables, to distinguish customer interactions that are queued for distribution from those that are requeued for consultation.

Table 186: Major Enhancements Introduced with Each RAA Release (Continued)

RAA Release	Enhancement
8.1.001.02	Release that modified some measure definitions. Refer to the *Reporting and Analytics Aggregates Release Notes* for information.
8.1.100.19	Release in which the scope of threshold engine was extended to recognize options that were set in objects other than the Genesys Info Mart `Application` object. This change requires reconfiguration of existing thresholds. Several "`_80`" measures, such as `Offered 80`, were added to some hierarchies for upgraded RAA deployments for backward compatibility. Refer to "Updating Thresholds in Upgraded Environments" on page 1155 for more information. Sample configuration scripts for aggregation of social-media data (`ACTIONABILITY`, `INFLUENCE`, and `SENTIMENT`, to name three measures) are provided in this release.
8.1.100.30	Minor corrections and improvements.
8.1.100.31	Minor corrections and improvements.
8.1.101.05	The RAA aggregation dispatcher now processes Genesys Info Mart notifications based on priority. Three new configuration options and runtime parameters enable user control of this feature.
8.1.101.07	Release in which new configuration parameters for `excludeConsult`, and four new call results (`DROPPED`, `SILENCE`, `STALE`, and `OK`) were added.
8.1.102.02	Minor corrections and improvements.
8.1.103.01	Minor corrections and improvements.
8.1.104.01	Release in which some improvements associated with 8.1.4 were made available to 8.1.1 customers, including queue attached data (disabled by default), a new option to `materialize-subhour-in-db`, and a new reaggregation option `(-InsertPendingAgg)`.
8.1.400.23	Release in which aggregate data purging is introduced. This release also introduces a new aggregation storage mode (and a column `AGR_SET_KEY`), which separates online and offline media in aggregate tables. Several changes are introduced to aggregation runtime parameters, including a new parameter, `-InsertPendingAgg`, which offers a simplified syntax.

Changes to RAA Configuration and Runtime Parameters

Table 187 lists the changes to application configuration since the initial RAA release and the release in which each change was introduced. For the listed `[agg-gim-thld...]` sections, you can configure options in more than one type of Genesys `Application` object, as shown in the table. Refer to "Setting Thresholds" in the *Reporting and Analytics Aggregates 8.1 Deployment Guide* to learn which value takes precedence when comparable options are defined in more than one application.

Table 187: Changes to RAA Configuration from 8.0 to 8.1.*x*

[Section Name] Option	Application Object	Type of Change	Occurred in Release #	Details
[agg] default-tz-offsets	Genesys Info Mart	Added	8.1.100.19	Sets winter and summer UTC time-zone offsets.
[agg] number-of-writers	Genesys Info Mart	Removed	8.1 .101	[agg] writer-schedule replaces this option.
[agg] realtime-offset	Genesys Info Mart	Added	8.1.101	Defines the minimum age (in seconds) which data must have before it is included in Zone 1. Data which has not reached this age is not included in any zone, allowing time for Genesys Info Mart to finish writing data before RAA begins to aggregate the data.
[agg] writer-schedule	Genesys Info Mart	Added	8.1.101	Sets the schedule for the number of writers that RAA dedicates to the aggregation of notifications received in Zone 1 and Zone 2.
[agg] zone-offset	Genesys Info Mart	Added	8.1.101	Defines the border that separates Zone 1 (recent data) from Zone 2 (older data).

Table 187: Changes to RAA Configuration from 8.0 to 8.1.*x* (Continued)

[Section Name] Option	Application Object	Type of Change	Occurred in Release #	Details
[agg-feature] Genesys	Info Mart	Added	8.1.100.19	Creates database objects for aggregation of social-media data and maps `IRF_USER_DATA_KEYS.GEN_ES_KEY` to `USER_DATA_KEY1` in the `H_ID`, `H_AGENT`, and `H_AGENT_QUEUE` hierarchies. Options: `eServicesSM`
			8.1.101.07	Options: `excludeConsult`
			8.1.400 and in 8.1.104	Options: `materialize-subhour-in-db`
[agg-gim-thld-AGENT-IXN] default <*media*>	Genesys Info Mart, Tenant	Added	8.1.100.19	Defines the short-engagement threshold for the `H_AGENT`, `H_AGENT_GRP`, `H_AGENT_QUEUE`, and `H_AGENT_CAMPAIGN` hierarchies[a].
[agg-gim-thld-ID-IXN] default <*media*>	Genesys Info Mart, Tenant	Added 8.1	.100.19	Defines short-abandon, acceptance, response, and finish thresholds for the `H_ID` hierarchy.
[agg-gim-thld-QUEUE-ABN] default <*media*>	Genesys Info Mart, Tenant	Added	8.1.100.19	Defines up to 19 abandon-in-queue thresholds for the `H_QUEUE_ABN` hierarchy.
[agg-gim-thld-QUEUE-ACC] default <*media*>	Genesys Info Mart, Tenant	Added	8.1.100.19	Defines up to 19 speed-of-accept thresholds for the `H_QUEUE_ACC` hierarchy.
[agg-gim-thld-QUEUE-IXN] default <*media*>	Genesys Info Mart, Tenant, Switch, DN, Script	Added 8.1	.100.19	Defines short-abandon, acceptance, and accepted-by-agent thresholds for the `H_QUEUE` and `H_QUEUE_GRP` hierarchies.
[agg-time-range-ABN] Genesys	Info Mart	Removed 8.1	.100.19	Use `[agg-gim-thld-QUEUE-ABN]` instead.
[agg-time-range-ACC] Genesys	Info Mart	Removed 8.1	.100.19	Use `[agg-gim-thld-QUEUE-ACC]` instead.

Table 187: Changes to RAA Configuration from 8.0 to 8.1.*x* (Continued)

[Section Name] Option	Application Object	Type of Change	Occurred in Release #	Details
[agg-time-range-MISC] Genesys	Info Mart	Removed	8.1 .100.19	Use `[agg-gim-thld-AGENT-IXN]` instead.

a. Refer to the *Reporting and Analytics Aggregates 8.1 User's Guide* for information about the content and structure of RAA hierarchies.

Table 188 lists the changes to runtime parameters since the initial RAA release.

Table 188: Changes to RAA Runtime Parameters from 8.0 to 8.1.*x*

Parameter Name	Type of Change	Occurred in Release #	Details
setFeature=excludeConsult	Added	8.1.101.07	Adds/enables `excludeConsult`.
delFeature=excludeConsult	Added	8.1.101.07	Removes `excludeConsult`.
deadlockThreshold	Added	8.1.001.02	Specifies the time in which each aggregation writer thread must return results before RAA cancels all database queries and closes all sessions.
defaultTZoffsets	Added	8.1.100.19	Sets winter and summer UTC time-zone offsets.
delFeature=eServicesSM	Added	8.1.100.19	Drops database columns related to social media and unmaps `USER_DATA_KEY1`.
setFeature=eServicesSM	Added	8.1.100.19	Creates database objects for aggregation of social-media data and maps `IRF_USER_DATA_KEYS.GEN_ES_KEY` to `USER_DATA_KEY1` in the `H_ID`, `H_AGENT`, and `H_AGENT_QUEUE` hierarchies.

Table 188: Changes to RAA Runtime Parameters from 8.0 to 8.1.*x* (Continued)

Parameter Name	Type of Change	Occurred in Release #	Details
delFeature=excludeConsult	Added	8.1.101.07 Includes	consult interactions in `ACC_*` and `ABN_*` queue aggregates.
setFeature=excludeConsult	Added	8.1.101.07 Excludes	consult interactions in `ACC_*` and `ABN_*` queue aggregates.
delFeature=materialize-subhour-in-db	Added	8.1.400 8.1.104	Disables the materialization of sub-hour aggregation level in the database.
setFeature=materialize-subhour-in-db	Added	8.1.400 8.1.104	Enables the materialization of sub-hour aggregation level in the database.
getFeature	Added	8.1.400 8.1.104	Displays a list of the features currently enabled in the database.
insertPendingAgg	Added	8.1.400 8.1.104	Submits a request to run the aggregation engine, and aggregate specified data at a specified time.
insertTimeRange	Removed	8.1.100.19	There is no replacement for this runtime parameter
numberOfWriters	Removed	8.1.101	`writerSchedule` replaces this parameter.
printQuery	Added	8.1.001.02	Logs the `SELECT` statement of the specified aggregation query.
realtimeOffset	Added	8.1.101	Defines the point in time at which Zone 1begins.

Table 188: Changes to RAA Runtime Parameters from 8.0 to 8.1.*x* (Continued)

Parameter Name	Type of Change	Occurred in Release #	Details
writerSchedule	Added	8.1.101	Sets the schedule for the number of writers that RAA dedicates to the aggregation of notifications received in Zone 1 and Zone 2.
	Updated	8.1.400	A new attribute, `hour(#-#)=purge`, enables and schedules purging of aggregate data.
zoneOffset	Added	8.1.101	Defines the border that separates Zone 1 from Zone 2.

Upgrading the GI2 Universe

Genesys provides no direct means to upgrade a specific GI2 universe. However, beginning with release 7.6.2, the functionality that approximates this concept is the ability of the different releases of GI2 universes to coexist within the same BOE repository. During installation, `GI2_Universe` is written to a release-specific folder, as shown in Figure 35. This preservation of prior universes enables you to revisit them when necessary to review object definitions.

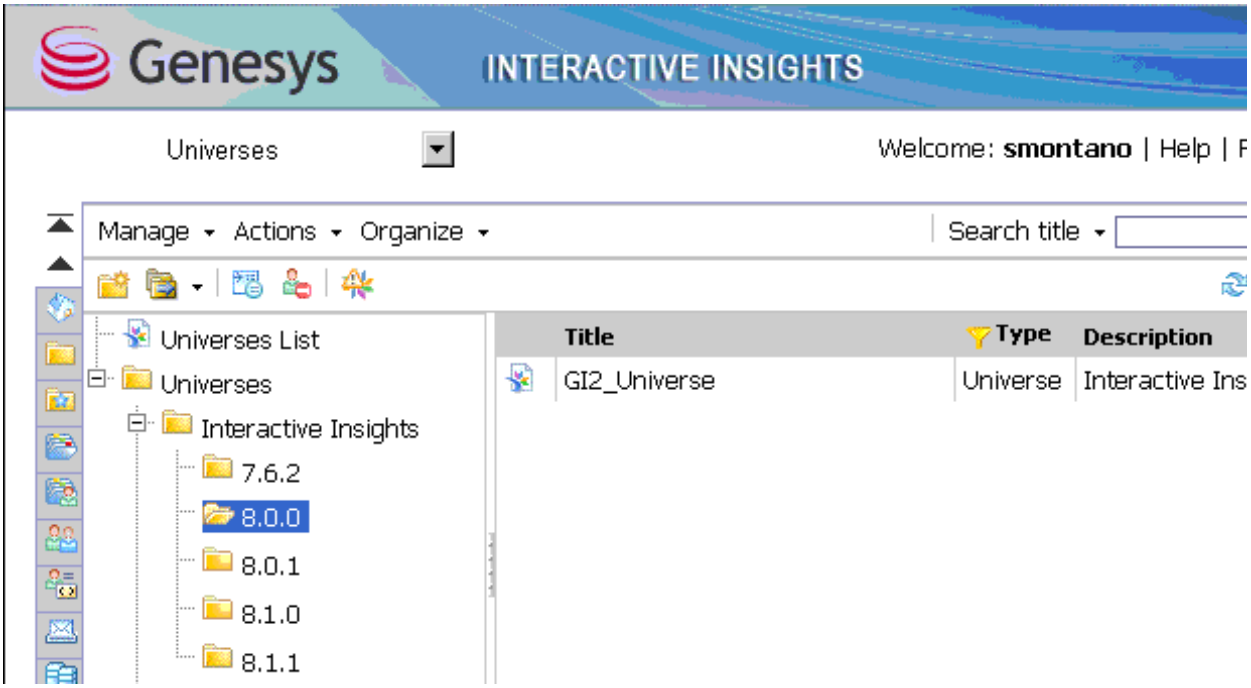

Figure 35: Release-Specific Universe Folders in Central Management Console

Table 189 provides the universe locations within the BOE repository for all GI2 releases. The root folder that is referenced in the table is `Universes\Interactive Insights`. The GI2 reports follow the same paradigm.

Table 189: GI2_Universe Folder Location Within BOE by Release

7.6.000.26	7.6.001.01	7.6.100.07	7.6.200.09
root	root	root	root\7.6.2

8.0.0*x*	8.0.1*x*
root\8.0.0	root\8.0.1

8.1.0*x*	8.1.1*x*	8.1.3*x*	8.1.4
root\8.1.0	root\8.1.1	root\8.1.3	root\8.1.4

Upgrading the GI2 Application

Apart from the GI2 reports and universe (which are stored in the BOE repository) is the GI2 application, which includes the program group and

registry settings (for Microsoft Windows platforms), setup batch files and scripts, and the report-upgrade utility (release 8.0+).

Upgrading a 7.*x* GI2 application entails uninstalling GI2 7.*x* and installing GI2 8.*x*. Similarly, upgrading an 8.*x* GI2 application (on Microsoft Windows platforms) entails uninstalling GI2 7.*x* and installing GI2 8.*x*.

Refer to the *Genesys Interactive Insights 8.x Deployment Guide* for more information.

Migrating Genesys Info Mart 7.6 Aggregate Data to 8.1

The initial RAA 8.1 release introduced a utility that migrates aggregate data and their associated dimensions from an Info Mart 7.6.005.00 schema to an Info Mart 8.1 schema in which RAA 8.1 has been deployed. (The 7.6.005.00 Info Mart schema is associated with Genesys Info Mart 7.6.005.11.) Read about this utility in the "Migration of Genesys Info Mart 7.6 Aggregates" chapter of the *Genesys Migration Guide.*

Migrating the GI2 Reports to 8.x

The initial 8.0 release of GI2 provided a Java utility that you can run to upgrade (or downgrade) GI2–provided reports and those custom reports that you design from elements in the GI2 universe. This Java utility renames the classes, measures, dimensions, details, and conditions that are referenced within these reports to the corresponding names of these elements that are referenced in the targeted environment. For example, the utility renames the `Talk Time` measure in the `Interval` class in a 7.6.2 environment to `Interaction State\Engage Time`—the name that is referenced by an 8.*x* environment.

For instructions on how to operate this utility, as well as more information about it, see the *Genesys Interactive Insights 8.x User's Guide*.

You cannot use this Java utility in GI2 release 8.1.3 or later (it is not compatible with BI 4.1). For more information about how to migrate your universe and reports in release 8.1.3 or later, see *Genesys Interactive Insights 8.x Deployment Guide*.

Note: The two utilities—for migrating aggregate data and migrating GI2 reports—are not mutually exclusive. Depending on the outcome that you require, you could run both of them.

Updating Thresholds in Upgraded Environments

In support of the expanded threshold mechanism that was introduced with RAA 8.1.1 are the five new threshold configuration sections (prefaced with `agg-gim-thld`) that are listed in Table 187 on page 1148. (These sections and the improved threshold engine are described in "Setting Thresholds" section of the *Reporting and Analytics Aggregates 8.1 Deployment Guide*.) When you upgrade RAA from release 8.0.*x* or 8.1.0*x* (hereafter referred to as 8.1.0^{-}) to release 8.1.1*x* (hereafter referred to as 8.1.0^{+}), the aggregation process looks to threshold definitions in these new sections for data computation. If you do not define threshold values explicitly in these sections and instead your configuration continues to employ threshold options that are configured in the [`gim-etl`] section, RAA addresses this scenario in two ways:

- RAA uses its own internal default values for the [`agg-gim-thld...`] sections and writes aggregated data to the usual expected columns. (These defaults are documented in the *Reporting and Analytics Aggregates Deployment Guide*.) For example, aggregated, short-abandoned values are written to `AG2_ID_HOUR.SHORT_ABANDONED`.

  Warning! Default values likely will differ from what you already have defined in your 8.1.0^{-} environment; hence, the co-mingling of aggregated data that is based on different threshold values will occur when the aggregation process runs.

- Reading the configuration of thresholds in the [`gim-etl`] section, RAA writes aggregated data to special columns that are suffixed with `_80` within your Info Mart schema. For example, aggregated, short-abandoned values are written to `AG2_ID_HOUR.SHORT_ABANDONED_80`.

  Refer to the *Genesys Info Mart Deployment Guide* for a listing and description of configuration options of the [`gim-etl`] section.

Before you run RAA 8.1.1 for the first time, Genesys recommends that you apply the threshold values that you have configured in the [`gim-etl`] section to the appropriate [`agg-gim-thld-...`] sections. Table 190 lists those options that require this attention.

Table 190: Mapping of [gim-etl][a] Threshold Options for Use in RAA 8.1.1

Threshold Option in [gim-etl]	Corresponding [agg-gim-thld-...] Section
q-answer-threshold, q-answer-threshold-voice	[agg-gim-thld-QUEUE-IXN]
q-short-abandoned-threshold, q-short-abandoned-threshold-voice	[agg-gim-thld-QUEUE-IXN]
short-abandoned-threshold	[agg-gim-thld-ID-IXN]

a. Genesys Info Mart enables threshold options to be configured in custom sections as well, such as `[gim-etl-media-chat]` and `[agg-gim-thld-QUEUE-IXN]`.

Furthermore, because the scope of threshold configuration is expanded in RAA 8.1.1 and the potential exists for you (or others in your organization) to define thresholds in objects other than the Genesys Info Mart `Application` object, to gain the maximum benefit of this enhanced functionality, Genesys recommends that you reaggregate data also (if the source data [in `*_FACT` tables] exists) also for the entire span of time that encapsulates the stored data. You should reaggregate data also when the co-mingling of data that is based on differing threshold configuration has occurred. (Refer to "Reaggregating Data over a Certain Time Range" in the *Reporting and Analytics Aggregates 8.1 User's Guide* for this information.)

Please note that not all RAA hierarchies honor both sets of configuration sections (`[gim-etl]` and `[agg-gim-thld-...]`). Table 191 lists those hierarchies that support backward compatibility of threshold configuration, as well as the new columns that were introduced in RAA 8.1.1 and that hold data that is based on threshold configuration in the `[gim-etl]` section.

Table 191: Hierarchies that Support Dual-Threshold Configuration

Hierarchy	Column Storing Data Based on Pre-8.1.1 Threshold Configuration
H_ID ABAND	ONED_STANDARD_TIME_80 SHORT_ABANDONED_80
H_QUEUE, H_QUEUE_GRP	ABANDONED_SHORT_80 ABANDONED_STANDARD_80 ABANDONED_STANDARD_TIME_80 ACCEPTED_AGENT_THR_80 ACCEPTED_THR_80 CONSULT_ABANDONED_SHORT_80 CONSULT_ABANDONED_STANDARD_80 CONSULT_ABN_STANDARD_TIME_80 CONSULT_ACCEPTED_AGENT_THR_80 CONSULT_ACCEPTED_THR_80

Your database schema will include this set of `_80` columns only for those environments that you upgrade to RAA 8.1.1. RAA 8.1.0- environments do not contain these columns and neither do new installations of RAA 8.1.1 or later. These columns store no values upon upgrade. RAA begins writing data to these columns when 8.1.1 aggregation runs and threshold options are defined in the `[gim-etl]` section. (Refer to "Upgrading RAA" in the *Reporting and Analytics Aggregates 8.1 Deployment Guide* for upgrade instructions.)

There are columns in the `H_AGENT`, `H_AGENT_GRP`, `H_AGENT_QUEUE`, `H_QUEUE_ABN`, and `H_QUEUE_ACC_AGENT` hierarchies that rely also on the values of thresholds —such as `AG2_AGENT.SHORT` and `AG2_QUEUE_ABN.ABANDONED_STI_1`. RAA 8.1.1 looks to the configuration of threshold options in the `[agg-gim-thld-...]` sections only for instruction on how to aggregate data. As shown in Table 187 on page 1148, the `[agg-time-range-ABN]`, `[agg-time-range-ACC]`, and `[agg-time-range-MISC]` sections have been discontinued altogether in the RAA 8.1.1 release.

Part

20 Expert Contact Migration

The chapters in this section show the migration process from release 6.5 to release 7.2 of Genesys Expert Contact. They also discuss component changes and the other Genesys software that supports and enables Genesys Expert Contact 7.2 functionality.

This Part contains the following chapters:

- Chapter 58, "Introduction to Genesys Expert Contact Migration," on page 1161 discusses the preliminary migration procedures, component compatibility, and changes for Genesys Expert Contact 7.2.
- Chapter 59, "Genesys Expert Contact Migration Procedures," on page 1171 discusses the migration procedures for releases 6.5 to 7.2.

Chapter

58 Introduction to Genesys Expert Contact Migration

This chapter discusses the preliminary migration procedures, component compatibility, and changes for Genesys Expert Contact 7.2. You can find basic information about Genesys Expert Contact in the *Genesys Expert Contact 7.2 Deployment Guide.* This chapter contains the following sections:

Preliminary Migration Procedures

Follow these procedures before migrating to Genesys Expert Contact 7.2.

Note: If you want to upgrade your operating system, do so before migrating your Genesys product.

Preliminary Genesys Migration Procedures

The Genesys migration process includes these preliminary procedures for Genesys Expert Contact 7.2:

1. Review Chapter 1, "Migration Roadmap," on page 41 of this guide.
2. Examine the order in which the Genesys software required for Genesys Expert Contact 7.2 should be upgraded in Chapter 3, Introduction to Framework Migration. Then, see "Migration and Upgrade Order" on page 1164.

3. Examine the product, component, and option changes in "Changes in Genesys Expert Contact" on page 1167.

> **Note:** Please note that these tables only discuss changes that directly affect the migration of this product. For more high-level information about what's new in this release of Genesys Expert Contact 7.2 and how the 7.2 version functions, see the *Genesys Expert Contact 7.2 Deployment Guide*. For a complete list of documentation relevant to the migration of this product, see "Reference Materials".

4. Review the licensing requirements for Genesys Expert Contact 7.2. See Chapter 2, "Licensing Migration," on page 47.
5. Check the interoperability of the components of Genesys Expert Contact 7.2 during the upgrade procedures. See "Interoperability Among Genesys Expert Contact Components" on page 1165.
6. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.

Reference Materials

- *Genesys Expert Contact 7.2 Deployment Guide*
- *Genesys Licensing Guide*
- *Genesys Interoperability Guide*

Migration Considerations

Migration paths depend on the version of the CTI-Less T-Server that you are migrating. In all cases it is assumed you are migrating to the most recent version.

Single Site, Multi-Site, and Multi-Tenant Migration

It is possible to migrate all sites or all tenants simultaneously. It is also possible to migrate separate sites independently. There can also be interoperability of different versions at different sites.

Single-Site Migration

- In single-site migrations, you need to suspend work in your production environment during the T-Server migration process.

Multi-Site Migration

- In multi-site environments, while you are undergoing the migration process, you need to reroute work through another CTI-Less T-Server during upgrade in order to avoid suspending work.

To minimize the amount of re-routing time, it is possible to do a partial upgrade and migrate only certain components during the re-route period.

Redundant T-Servers

Since T-Servers can operate in a high-availability (HA) configuration, providing you with redundant systems, you may be migrating multiple servers. In the cases of both primary and backup T-Servers, the migration process is the same.

High Availability

Redundant CTI-Less T-Servers: Since CTI-Less T-Servers can operate in a high-availability (HA) configuration, providing you with redundant systems, you may be migrating multiple servers. In the cases of both primary and backup T-Servers, the migration process is the same.

When running CTI-Less T-Servers in either Hot or Warm Standby mode, the primary and backup CTI-Less T-Server must also be the same major release (although within the major release there can be different software versions). Instructions for configuring T-Server in a redundant configuration are available in the *Genesys Expert Contact 7.2 Deployment Guide.*

Rolling Upgrades

Release 7.2 supports rolling upgrades, which enables you to upgrade one CTI-Less T-Server at a time, alternating primary and backup servers during the maintenance phase. For example, you can upgrade one CTI-Less T-Server in a primary backup pair from the 7.0 release to the 7.2 release, while running the other 7.0 version as the primary. Then, you can upgrade the other CTI-Less T-Server.

Expert Impact

During the CTI-Less T-Server migration, determine how you want to migrate the server to minimize impact on routing to experts associated with that server.

Licensing

Regardless of which version of CTI-Less T-Server you have prior to migrating, be sure to check on the licensing requirements for the new version. In all cases, refer to the *Genesys Licensing Guide* available on the Technical Support Website for more information.

Note: In the Genesys Expert Contact 7.2, high availability configurations do not require duplicate licenses. The HA license for your CTI-Less T-Server applies to both the primary and backup T-Servers.

Backward Compatible

CTI-Less T-Server 7.2 is fully backward compatible with the 7.0 and 6.5 releases of CTI-Less T-Server clients (for example, GCN Web). See "Interoperability Among Genesys Expert Contact Components" on page 1165.

CTI-Less T-Server Enhancements

Release 7.2

The following sections describe some of the major functional differences between the 7.2 and 7.0 releases of CTI-Less T-Server.

Unified Call-Party States

CTI-Less T-Server now supports unified call-party states. When a client application queries CTI-Less T-Server, CTI-Less T-Server returns the unified call-party state. This provides detailed information about the state of the call parties. For more information about call-party states, see the T-Library SDK 7.2 C Developer's Guide.

Release 7.0

The following sections describe some of the major functional differences between the 7.0 and 6.5 releases of CTI-Less T-Server.

Upgrade to Licensing Control

Licensing for CTI-Less T-Server is based on different criteria than it was for earlier releases. Be sure to refer to the *Genesys Licensing Guide* for complete licensing details. This guide also describes new licensing features that are available with this most recent release of CTI-Less T-Server.

Log Messages Improvement

CTI-Less T-Server provides more detailed message descriptions for log files and error messages, including more descriptions of possible workarounds and fixes.

Enhanced Support for User Data

The amount of user data that can be associated with an interaction is now configurable. The default setting is 16,000 bytes, but you can increase that value up to 65,535 bytes. This increased user-data limit gives you greater flexibility in customizing CTI-Less T-Server for your specific contact center environment. See *T-Library SDK 7.2 C Developer's Guide*.

Migration and Upgrade Order

Migrate or upgrade the application components of Genesys Expert Contact, the other enabling software, and relevant data in the following order:

Note: See procedures detailing this order in Chapter 59, "Genesys Expert Contact Migration Procedures," on page 1171.

1. Install Licensing Manager.
2. See Chapter 2, "Licensing Migration," on page 47 and the *Genesys Licensing Guide*.
3. Migrate Management Framework.

   Note: You can migrate to the 7.2 Configuration Layer while still using 7.1, 7.0, or 6.5 components. If you want to change DB before Configuration Layer migration, migrate the database, then the data, and run the Configuration Conversion Wizard (CCW).

   Management Framework is the foundation for all Genesys products, solutions, and options.

   For information about migrating the layers and components of Management Framework, see Chapter 2, "Migration Roadmap"on page 41 of this guide.
4. Upgrade other prerequisite Genesys components.
5. When upgrading many components, determine if the first component you upgrade to version 7.2 is backward compatible with previous versions of the components that you have not yet upgraded. See "Interoperability Among Genesys Expert Contact Components" on page 1165.
6. If necessary, migrate data (for example, Solution specific data, Contact Center data, Reporting data), scripts, and routing strategies.
7. Migrate the agent desktop.

Interoperability Among Genesys Expert Contact Components

The term *interoperable* refers to whether different versions of Genesys solutions, components, or options can work together compatibly during the migration process.

Interoperability of Genesys products can occur at two levels of migration:

- **Interoperability at the suite-level** means combining different versions of solutions and options during the migration process.

  Example: You can migrate to the Configuration Layer of Framework 7.2, while still using CTI-Less T-Server 7.0 or 6.5. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability

of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.

- **Interoperability at the solution-specific level** means combining different versions of the components of a particular solution while upgrading them sequentially during the migration process.

The following section provides the details.

CTI-Less T-Server Interoperability

Hot or Warm Standby Mode

If you are running your CTI-Less T-Servers in a Hot or Warm Standby mode, then the primary and backup CTI-Less T-Servers must both be of the same release family (although within the family there can be minor-release differences).

Multi-Site Environment

Multi-site deployments of T-Server allow for interoperability of T-Server versions between sites. You can migrate one T-Server without migrating your other T-Servers. Use this concept to keep your production system up during migration. You will need to route work through alternate T-Servers while migrating a given T-Server to the current release.

Genesys Expert Contact Compatibility

Table 192 shows compatibility with 6.x versions of Framework

Table 192: CTI-Less T-Server Compatibility in Framework 6.x Environments

	6.0 Framework	6.1 Framework	6.5 Framework
CTI-Less T-Server 7.0	Not supported	Not supported	Supported
CTI-Less T-Server 6.5	Not supported	Not supported	Supported

Table 193 shows compatibility with 7.x versions of Framework

Table 193: CTI-Less T-Server Compatibility in Framework 7.x Environments

	7.0 Framework	7.1 Framework	7.2 Framework
CTI-Less T-Server 7.0	Supported	Supported	Supported
CTI-Less T-Server 6.5	Supported	Supported	Supported

Table 194 shows compatibility between desktop components and CTI-Less T-Server.

Table 194: Desktop Component and CTI-Less T-Server Compatibility

	CTI-Less T-Server 6.5	CTI-Less T-Server 7.0	CTI-Less T-Server 7.2
GCN Web 6.5	Supported	Supported	Supported
Genesys Desktop 7.x	Supported	Supported	Supported

Changes in Genesys Expert Contact

This section discusses product changes (additions, deletions, and modifications) that need to be specifically addressed during the migration process. See the *Genesys Expert Contact 7.2 Deployment Guide* for a comprehensive list of changes.

Component Changes for Genesys Expert Contact 7.x

Table 195 shows addition and deletion component changes between Genesys Expert Contact 6.5 and 7.2.

Table 195: Component Changes from 6.5 to 7.2

Current Component Name	Type of change	Change Occurred in Version #	Details (optional)
CTI-Less T-Server	Support for Hot standby Does not support Solaris 2.6 or 2.7	7.0	
	Now supports: Red Hat Enterprise Linux Solaris 32/64 bit version 10 Tru64 UNIX	7.2	See the *Genesys Supported Operating Environment Reference Guide* for supported platforms.
Genesys Desktop	New component	7.0	This desktop application replaces GCN Web in this release. Genesys Desktop is also a web-based application.

Configuration Option Changes for Expert Contact

Table 196 summarizes the changes to the options for Genesys Expert Contact between 6.5 and 7.0.

Note: There were no changes to configuration options between 7.0 and 7.2.

Table 196: Configuration Option Changes from 6.5 to 7.0

Section Name	Option Name	Type of Change	Change Occurred in Version #	Details (optional)
CTI-Less T-Server				
license	num-of-licenses	New	7.0	Moved from the T·Server section to the license section in release 7.0. See the *Genesys Expert Contact 7.2 Deployment Guide.*
	num-sdn-licenses	New	7.0	New in release 7.0. See the *Genesys Expert Contact 7.2 Deployment Guide.*
extrouter	cast-type	New default value	7.0	Default value is now direct-notoken, direct-ani
TServerSap	track-active calls	New	7.0	New in release 7.0. See the *Genesys Expert Contact 7.2 Deployment Guide.*
Genesys Desktop[a]				
kworker	show-on-preview	New	7.0	New in release 7.0. See the *Genesys Expert Contact 7.2 Deployment Guide.*

a. All options specific to Genesys Expert Contact in GCN Web 6.5 are also in Genesys Desktop.

Chapter

59 Genesys Expert Contact Migration Procedures

This chapter discusses the migration procedures for releases 6.5 to 7.2 and contains the following sections:

Note: Genesys Expert Contact was a new product as of the 6.5 release. There are no migration procedures previous to the 6.5 releases.

CTI-Less T-Server Migration

This section describes how to migrate from a 6.5 or 7.0 to the 7.2 release of CTI-Less T-Server.

Licensing

Prior to migrating your CTI-Less T-Server, be aware that you need to take licensing issues into account. Starting with release 7.0, CTI-Less T-Servers refer to the license server for authentication.

The new license server rules are described in the *Genesys Licensing Guide*. Also refer to the *Genesys Expert Contact 7.2 Deployment Guide* for licensing information.

Note: The licensing requirements for CTI-Less T-Server 7.x are different from those in the 6.5 release.

Licensing Requirements for T-Server

The following are short descriptions of the issues you must consider when deploying your new licensing for CTI-Less T-Server:

- A stand-alone CTI-Less T-Server serving a single site requires licenses to register all DNs it monitors.
- CTI-Less T-Servers operating with the hot standby redundancy require a special CTI HA technical license, which allows for high-availability implementations in addition to regular CTI-Less T-Server licenses.
- CTI-Less T-Servers performing multi-site operations require licenses that allow for such operations in addition to regular CTI-Less T-Server licenses.

Licensing Prerequisites

Before starting your migration of CTI-Less T-Server:

1. Obtain appropriate license files for 7.2 CTI-Less T-Servers.
2. Install Licensing Manager (if it is not already installed).

Other Migration Information

Related migration information that may help you migrate CTI-Less T-Server is available elsewhere in this guide. See:

1. Chapter 2, "Licensing Migration," on page 47
2. *Genesys Interoperability Guide*

CTI-Less T-Server Migration Procedures

Use the following two sections to assist you in performing a basic upgrade to a 7.2 release or rollback to a previous release of CTI-Less T-Server.

Note: When upgrading an existing component, you are not creating a new component object but rather using the existing component object (with the original name) and configuring it with the options available as a result of the newly installed executable. Do not create a new Application object in Configuration Manager or rename the existing Application object.

CTI-Less T-Server Upgrade Procedures

To Upgrade T-Server

Perform the following steps for each CTI-Less T-Server Application object:

1. In Configuration Manager, open the `Properties` dialog box for your existing CTI-Less T-Server Application object (whether release 6.5 or 7.0).
2. From the `Options` tab, export the existing configuration option settings in a `*.cfg` file using the Export utility. Preserve this `*.cfg` file in a secure location in case you need to rollback later or use it as a reference. Refer to *Framework 7.2 Configuration Manager Help* for instructions on using the Export utility.

3. Install the CTI-Less T-Server 7.2 application. For installation instructions, refer to the *Genesys Expert Contact 7.2 Deployment Guide.*

   This location should be the same location as your previous version.

4. Verify the parameters on the `Start Info` tab of the CTI-Less T-Server Application object in Configuration Manager—the CTI-Less T-Server working directory, executable name, and command-line parameters.

5. Specify any new configuration options on the `Options` tab of the CTI-Less T-Server Application object. See list Table 196 on page 1169 to see what options were changed or added between the 6.5 and 7.x releases.

   See the *Genesys Expert Contact 7.2 Deployment Guide* for complete details on options.

6. On the `Connections` tab, verify that the proper connections are still in place for CTI-Less T-Server. See the *Genesys Expert Contact 7.2 Deployment Guide* for information on connections.

7. If you have not previously used the centralized-logging and alarm-signaling capabilities of the Management Layer, but would like to do so now, add a connection to Message Server on the `Connections` tab of the CTI-Less T-Server Application object in Configuration Manager.

Refer to the "Starting and Stopping Procedures" chapter in the *Genesys Expert Contact 7.2 Deployment Guide* for startup instructions.

CTI-Less T-Server Rollback Procedures

To Rollback to Earlier Version

If you must return to your previous version of CTI-Less T-Server:

1. In Configuration Manager, display the `Properties` dialog box for the CTI-Less T-Server Application object.

2. On the `Options` tab, click the `Import from Configurations File` icon and locate the configuration file (`*.cfg` file) you exported in Step 2 on page 1172 to restore the previously configured settings. Refer to *Framework 7.2 Configuration Manager Help* for instructions on using the Import utility.

   Note: This procedure overwrites the options on this tab with those in the configuration file.

3. Delete any new connections to server applications you have configured on the `Connections` tab of the CTI-Less T-Server Application object in Configuration Manager.

4. Click `OK` to save the changes and close the dialog box.

5. Uninstall CTI-Less T-Server 7.2.

6. Install the previous version of CTI-Less T-Server.
7. Verify the parameters on the `Start Info` tab of the CTI-Less T-Server Application object in Configuration Manager—the CTI-Less T-Server working directory, executable name, and command-line parameters.

Deploying CTI-Less T-Server 7.2 in a 6.x Environment

CTI-Less T-Server 7.2 supports deployment in an environment that will continue to use 7.1, 7.0, or 6.5 Genesys components. The steps required for this type of deployment are the same as those you must take to install CTI-Less T-Server in a 7.2 environment. The differences in the mixed environment case determine how you must deploy your licensing for T-Server.

Note: If you are running your CTI-Less T-Servers in either Hot or Warm Standby mode, then the primary and backup T-Servers must both be of the same release family (although within the family there can be different minor release differences).

Licensing Issues for CTI-Less T-Server 7.2 in a 6.x Environment

While the steps for migrating a CTI-Less T-Server to a 7.2 or a mixed environment are generally the same, there are a few licensing issues that you need to consider for the mixed environment.

License Section in Options Tab

The license section in the `Options` tab of the CTI-Less T-Server Application object in Configuration Manager is not required for backward compatibility in the 6.x environment. However, in the event that you need to specify numbers of licenses, you may add that section. See the *Genesys Expert Contact 7.2 Deployment Guide* for more information on this section.

To Deploy Licensing for T-Server

There are two ways to deploy licensing for CTI-Less T-Server 7.2 in a 6.x environment:

1. Use one 8.3 License Manager (LM) for the whole environment
   or
2. Use two separate LMs—one for 6.x applications and another one for 7.2 applications. In this case, retain your existing 6.x license, and order the appropriate 7.2 licenses for their related servers.

> **Note:** Genesys 5.x and 6.x applications require FLEXlm License Manager 6.1 or higher; Genesys 7.2 applications require FLEXlm License Manager 8.3 or higher; and only Genesys applications for Red Hat Linux Enterprise require FLEXlm License Manager 9.5.

If you choose option number 1 above (use one LM 8.3), select from either of the following lists of procedures, Procedures List 1 or Procedures List 2:

Procedures List 1

a. Order CTI-Less T-Server 7.2 licenses for the same host where your LM is running.
b. Update the license file with the new features for your new CTI-Less T-Server.
c. Install LM 8.3. Configure it in the same way you configured your previous LM, using the same port and license file.
d. Install 7.2 CTI-Less T-Server.
e. Stop the old LM and start LM 8.3.
f. Start CTI-Less T-Server.

Or:

Procedures List 2

a. Order 7.2 CTI-Less T-Server licenses for any other hosts where your LM 8.3 will be running.
b. Install LM 8.3.
c. Run LM 8.3 with the new license file (containing licenses for CTI-Less T-Server 7.2).
d. Install CTI-Less T-Server.
e. Start CTI-Less T-Server.

If you use two or more CTI-Less T-Servers and these CTI-Less T-Servers share licenses, create a new section called `license` on the `Options` tab for each CTI-Less T-Server application in the Configuration Layer before you start the CTI-Less T-Servers. Configure the `license` section options before starting CTI-Less T-Server. See the *Genesys Licensing Guide* and *Genesys Expert Contact 7.2 Deployment Guide* for information on configuring license options.

> **Note:** Since licensing is based on DNs in use, be sure to configure in the Configuration Database all DNs that experts use (ACD Positions and Extensions) and that CTI-Less T-Server should control.

GCN Web and Genesys Desktop

If you want experts to use Genesys Desktop instead of GCN Web, do the following:

1. In Configuration Manager, open the `Properties` dialog box for the GCN Web 6.5 Application object.
2. From the `Options` tab, export the existing configuration option settings in a `*.cfg` file using the Export utility. Preserve this `*.cfg` file in a secure location in case you need to rollback later. Refer to *Framework 7.2 Configuration Manager Help* for instructions on using the Export utility.
3. Install the Genesys Desktop application. For installation instructions, refer to the *Genesys Desktop 7.6 Deployment Guide*, or a later version.
4. Open the `.cfg` file that you previously exported in a text editor and compare them with the list in Table 196 on page 1169 to see what options were changed or added between release 6.5 and 7.x.

   Note: Genesys Desktop is based on GCN Web so many of the options will be the same.

5. Open the Genesys Desktop Application object and specify any new configuration options on the `Options` tab.

   See the *Genesys Expert Contact 7.2 Deployment Guide* for complete details on options.
6. Verify on the `Connections` tab that the proper connections are still in place for Genesys Desktop. See the *Genesys Expert Contact 7.2 Deployment Guide* for information on connections.
7. Click `OK` to save the changes and close the dialog box.

Part

21 eServices (Multimedia) Migration

eServices was called Multi-Channel Routing (MCR) in releases 7.0 and 7.1, and Multimedia in releases 7.2 through 8.0.0. The chapters in this section show the migration process as follows:

- From release 7.0 to release 7.1 of MCR
- From release 7.1 of MCR to release 7.2 of Multimedia
- From release 7.2 to 7.5, 7.5 to 7.6, and 7.6 to 8.0.0 of Multimedia
- From release 8.0.0 Multimedia to release 8.0.1 of eServices
- From eServices release:
  - 8.0.1 to 8.0.20
  - 8.0.20 to 8.0.21
  - 8.0.21 to 8.1.0
  - 8.1.0 to 8.1.1
  - 8.1.1 to 8.1.2
  - 8.1.2 to 8.1.201
  - 8.1.201. to 8.1.3
  - 8.1.3 to 8.1.4
  - 8.1.4 to 8.5.0

They also discuss component changes and the other Genesys software that supports and enables Genesys Multi-Channel Routing/Multimedia/eServices functionality.

This part contains the following chapters:

- Chapter 60, “Migration Order for eServices (Multimedia),” on page 1179 includes preliminary migration procedures and migration order.
- Chapter 61, “Changes in Components and Configuration Options,” on page 1215 provides information that you need to upgrade components and configuration options.

- Chapter 62, “Migration Procedures,” on page 1269 describes detailed migration procedures.

Nonconsecutive Migration

This part describes migration from one version to the version that is next in the numeric sequence. To migrate nonconsecutive versions (for example, 8.1.1 to 8.1.4):

- For all components, uninstall the old component, install the new component, and consult Chapter 61, “Changes in Components and Configuration Options,” on page 1215 to adjust configuration options that have been added, removed, or changed.
- For UCS and Interaction Server, you must also run the entire series of SQL upgrade scripts listed in “Databases” on page 1282.

Chapter

60 Migration Order for eServices (Multimedia)

This chapter includes preliminary migration procedures and the migration order for the following releases:

- Multi-Channel Routing 7.1
- Multimedia 7.2
- Multimedia 7.5
- Multimedia 7.6.0
- Multimedia 7.6.1
- Multimedia 8.0.0
- eServices (Multimedia) 8.0.1
- eServices 8.0.20
- eServices 8.0.21
- eServices 8.1.0
- eServices 8.1.1
- eServices 8.1.2
- eServices 8.1.201
- eServices 8.1.3
- eServices 8.1.4
- eServices 8.5.0

There are three main sections in this chapter:

Preliminary Migration Procedure

This section provides information that you should be aware of before beginning migration.

For an overview of migration issues, see the "Migration Roadmap" chapter of this guide.

Note: If you want to upgrade your operating system before migrating your Genesys product, contact Professional Services.

The migration process includes these preliminary procedures for Multi-Channel Routing 7.1, Multimedia 7.x and 8.0.0, eServices 8.0.x, and eServices 8.1.x:

1. Review the "Migration Roadmap" chapter of this guide.
2. Examine the order in which the Genesys software that is required for Multi-Channel Routing, Multimedia, or eServices should be upgraded. See "Migration Procedures" on page 1275.
3. Examine "Changes to Configuration Options" on page 1221.
4. Review the licensing requirements. See the "Licensing Migration" chapter of this guide.
5. Check the interoperability of the components of Multi-Channel Routing/Multimedia/eServices during the upgrade procedures. See "Interoperability Among eServices (Multimedia) Components" on page 1181.

See also the following reference materials:

- *Genesys Licensing Guide* for information on licensing.
- For information about interoperability, see the *Genesys Interoperability Guide Wiki*.
- The following documents for the relevant versions of MCR, Multimedia, or eServices. All are available on the eServices product page of the Genesys Documentation website:
  - Deployment Guide
  - Administrator's Guide
  - Reference Manual
  - Social Media Solution Guide
  - Interaction Properties Reference Manual
  - Field Codes Reference Manual
  - Integrated Capture Points Guide
  - Multi-tenancy and Load Balancing Guide

Multi-Site and Multi-Tenant Migration

Genesys recommends that you migrate all eServices (Multimedia) sites and/or tenants at the same time. For any other scenario, you must contact Genesys Technical Support for assistance.

Interoperability Among eServices (Multimedia) Components

The term *interoperable* means that different versions of Genesys solutions, components, or options can work together compatibly during the migration process.

Interoperability of Genesys products can occur at two levels of migration:

- **Interoperability at the suite level** means combining different versions of solutions and options during the migration process.
- **Example:** You can migrate to the Configuration Management Layer of Framework 7.2 while still using 6.x or 7.0 components. For information about interoperability, see the *Genesys Interoperability Guide Wiki* at http://docs.genesys.com/.
- **Interoperability at the solution-specific level** means combining different versions of the components of a particular solution while upgrading them sequentially during the migration process.

  The mixture of components may include the executables, applications, routing strategies, scripts, and data that compose a particular solution.

As you upgrade each of the components in sequence, you will need to know if it is backward-compatible with the other components of eServices (Multimedia).

This section provides answers to this important question.

Note: In general, a new release of Genesys Framework preserves compatibility with the immediately preceding releases of Genesys solutions. However, DB Server 7.5 is not compatible with Interaction Server 7.2 (and earlier).

Compatibility Between Multimedia/MCR/eServices and Genesys Framework

Genesys 7.1 and MCR 7.1

Besides being compatible with all Genesys 7.1 components, MCR 7.1 is compatible with the following:

- Framework 7.0.1, with the following qualifications:
  - Genesys recommends Framework 7.1.1.
  - Interaction Server requires DB Server 7.0.100.03 or later.
- Management Layer 7.0.1.
- StatServer 7.0.2 (if you do not require any statistics to be collected using MCR Statistics Extensions 7.1).
- Universal Routing Server 7.0.1 (but objects that are new in Interaction Routing Designer 7.1 are not supported).

Genesys 7.2 and Multimedia 7.2

Besides being compatible with all Genesys 7.2 components, Multimedia 7.2 is compatible with the following:

- Configuration Layer 7.1.

  Note: You must add the Business Attribute `Outbound Notification` manually to the 7.1 Configuration Layer.

- DB Server 7.1
- Management Layer 7.1
- Universal Routing Server 7.1, except that objects that are new in Interaction Routing Designer 7.2 are not supported.
- Multimedia 7.2 is compatible with the following, as long as Interaction Server is of the old type `T-Server` rather than the new type `Interaction Server`:
  - Universal Routing Server 7.1
  - Interaction Routing Designer 7.1
  - Genesys Desktop 7.1
- Multimedia is not compatible with Stat Server 7.1. It requires Stat Server 7.2.000.10 or higher.

Genesys 7.5 and Multimedia 7.5

Besides being compatible with all Genesys 7.5 components, Multimedia 7.5 is compatible with all Genesys 7.2 components, with the following qualifications:

- Multimedia features that are new in 7.5 are not necessarily supported.
- Genesys recommends using Multimedia with Stat Server 7.5. Stat Server 7.2 returns an error if it receives the statistics types that are new in 7.5.
- DB Server 7.5 is strongly suggested.

Genesys 7.6 and Multimedia 7.6.0

Besides being compatible with all Genesys 7.6 components, Multimedia 7.6.0 is compatible with all Genesys 7.5 components, except that Multimedia features that are new in 7.6.0 are not necessarily supported.

Interaction Server 7.6.0 is also compatible with Genesys Desktop 7.2 if the Interaction Server `ignore-read-only-on-change` option is set to `true`.

Genesys 7.6 and Multimedia 7.6.1

Besides being compatible with all Genesys 7.6.1 components, Multimedia 7.6.1 is compatible with all Genesys 7.6.0 components, except that Multimedia features that are new in 7.6.1 are not necessarily supported.

Genesys 8.0 and Multimedia 8.0.0

At the time of the 8.0.0 release of Multimedia, many other Genesys 8.0 components had not been released. Information about compatibility between 8.0 Genesys products and Multimedia 8.0.0 is announced with the release of each product that is related to Multimedia.

Multimedia 8.0.0 is compatible with all Genesys 7.6 components, except that Multimedia features that are new in Multimedia 8.0.0 are not necessarily supported.

Genesys 8.0 and eServices 8.0.1

eServices 8.0.1 is compatible with all Genesys 8.0.0 components, except that the role-based access control feature of Knowledge Manager requires an 8.0.2 or later configuration environment.

Genesys 8.0 and eServices 8.0.20

eServices 8.0.20 is compatible with all Genesys 8.0.1 components, with the following exceptions:

- The following require an 8.0.20 or later configuration environment:
  - Social Messaging Server
  - The role-based access control feature of Knowledge Manager
- Social Messaging Server requires Universal Routing Server (URS) 8.0.100.17 or later and Universal Contact Server (UCS) 8.0.100.13 or later.

Genesys 8.0 and eServices 8.0.21

eServices 8.0.21 is compatible with all Genesys 8.0.1 components, with the following exceptions:

- Knowledge Manager's role-based access control feature requires Genesys Administrator.
- Social Messaging Server requires Universal Routing Server (URS) 8.0.100.17 or later and Universal Contact Server (UCS) 8.0.100.13 or later.

> **Note:** If you experience termination of URS while processing messages from social media sites, please upgrade URS to version 8.1x.

Genesys 8.1 and eServices 8.1.0

eServices 8.1.0 is compatible with all Genesys 8.1 components, with the following exceptions:

- Knowledge Manager's role-based access control feature requires Genesys Administrator.
- The Social Engagement components (Social Messaging Server, Drivers for Facebook and Twitter, Business Processes for Facebook and Twitter) require Universal Routing Server 8.1.1 or later and Interaction Routing Designer 8.1.1 or later.

Genesys 8.1 and eServices 8.1.1

eServices 8.1.1 is compatible with all Genesys 8.1 components, with the following exceptions:

- Knowledge Manager's role-based access control feature requires Genesys Administrator.
- The Social Engagement components (Social Messaging Server, Drivers for Facebook and Twitter, Business Processes for Facebook and Twitter) require Universal Routing Server 8.1.1 or later and Interaction Routing Designer 8.1.1 or later.

Genesys 8.1 and eServices 8.1.2

eServices 8.1.2 is compatible with all Genesys 8.1 components, with the following exceptions:

- Knowledge Manager's role-based access control feature requires Genesys Administrator.
- The Social Engagement components (Social Messaging Server; Drivers for Facebook, Twitter, and RSS; Business Processes for Facebook, Twitter, and RSS; and Interaction Workspace Plugins for Facebook, Twitter, and RSS) require Universal Routing Server 8.1.1 or later and Interaction Routing Designer 8.1.1 or later.
- Web API Server does not work with Stat Server 8.1.1 and above

Genesys 8.1 and eServices 8.1.201

eServices 8.1.201 is compatible with all Genesys 8.1 components, with the following exceptions:

- Knowledge Manager's role-based access control feature requires Genesys Administrator.
- The Social Engagement components (Social Messaging Server; Drivers for Facebook, Twitter, and RSS; Business Processes for Facebook, Twitter, and RSS; and Interaction Workspace Plugins for Facebook, Twitter, and RSS) require Universal Routing Server 8.1.1 or later and Interaction Routing Designer 8.1.1 or later.

Genesys 8.1 and eServices 8.1.3

eServices 8.1.3 is compatible with all Genesys 8.1 components, except that

- Knowledge Manager's role-based access control feature requires Genesys Administrator (any version).
- Interaction Server 8.1.3. requires DB Server 8.1.1 or later. For details see the "Interaction Server Limitations" topic in the *eServices Administrator's Guide,* which is available at http://docs.genesys.com/Documentation/ES.

Note: eServices 8.1.3 does not include the Social Media components.

Genesys 8.1 and eServices 8.1.4

eServices 8.1.4 is compatible with all Genesys 8.1 components, with the following exceptions:

- Knowledge Manager's role-based access control feature requires Genesys Administrator.

- Interaction Server 8.1.3. requires DB Server 8.1.1 or later. For details see the "Interaction Server Limitations" topic in the *eServices Administrator's Guide,* which is available at http://docs.genesys.com/Documentation/ES.
- Business Process for Use with Facebook and Business Process for Use with Twitter require Universal Routing Server 8.1.300.28 or later.
- Interaction Workspace Plugin for Facebook and Interaction Workspace Plugin for Twitter require Interaction Workspace 8.1.401.28 or later.

Genesys 8.5 and eServices 8.5.0

eServices 8.5.0 is compatible with all Genesys 8.5 components, except that Social Media Plugin for Workspace Desktop Edition supports only Workspace Desktop Edition 8.5.1 or higher. More information about backward compatibility is provided in the Genesys Interoperability Guide.

Compatibility Among Components of eServices (Multimedia)

MCR 7.1 with MCR 7.0

Table 197 lists compatibility between 7.1 and 7.0.1 MCR components.

Table 197: Compatibility of MCR 7.1 with MCR 7.0.1

Component	Compatible with MCR 7.0.1?
Chat Server	Yes
Classification Server	Yes, except requires UCS 7.1
E-Mail Server Java	Yes, except requires UCS 7.1
Interaction Server	Yes (requires upgrading the database)
Interaction Workflow Samples	No
Knowledge Manager	No
Third Party Components	No[a]
Training Server	Yes, except requires UCS 7.1
Universal Contact Server	Yes (requires upgrading the database)
Universal Contact Server Manager	Yes
Web API Server	Yes
Web Compound Samples	Yes[b]

a. Third Party Components 7.1 and 7.0.1 can coexist. You should install the web part of this component only if you intend to upgrade your web components. To avoid installing the web part, select `Other` when the installation asks you to select a servlet engine.

b. Web Compound Samples includes samples of functionalities that are new in 7.1. These new samples are not compatible with MCR 7.0.1.

Multimedia 7.2 with MCR 7.1

Note: You cannot install any Multimedia 7.2 component in the same directory as an MCR 7.1 component. For a mixed solution, Multimedia 7.2 components and MCR 7.1 components must be in separate directories.

Table 198 lists compatibility between Multimedia 7.2 and MCR 7.1 components.

Table 198: Compatibility of Multimedia 7.2 with MCR 7.1

Component	Compatible
Chat Server	Yes. However: • For Chat Server to work correctly with the 7.1 Web Samples, you must add a `queues` section containing options that duplicate the options in the `endpoints:<tenant_dbid>` section. • On Solaris and AIX, Third Party Components 7.2 are required.
Classification Server	Yes, but Third Party Components 7.2 are required.
Configuration Wizards (MCR)	You can use the Multimedia 7.2 configuration wizards to upgrade individual 7.1 components. However, Genesys recommends that you not install the 7.2 wizards on the same host as the 7.1 wizards.
ESJ	Yes, but Third Party Components 7.2 are required.

Table 198: Compatibility of Multimedia 7.2 with MCR 7.1 (Continued)

Component	Compatible
Interaction Server	Yes, with the following qualifications: • The Interaction Server Application object must be of the old type `T-Server` rather than the new type `Interaction Server`. • You must upgrade the Interaction Server database to 7.2. • Multi-tenancy is not supported. • There must not be a connection to Chat Server 7.1.
Interaction Workflow Samples	No
Knowledge Manager	Yes. However: • The FAQ functionality is not supported. • Third Party Components 7.2 are required
Third Party Components	No
Training Server	No
UCS	Yes, but you must upgrade the UCS database, and Third Party Components 7.2 are required
UCS Manager	No
UCS Transition Tool	Yes, but Third Party Components 7.2 are required.

Table 198: Compatibility of Multimedia 7.2 with MCR 7.1 (Continued)

Component	Compatible
Web API Server	Yes, with the following qualifications: • Only 7.1 functionality is available. • Third Party Components 7.2 are required. • There must not be a connection to UCS 7.1.
Web Compound Samples	Yes, but only 7.1 functionality is available. You must also: • Add `naendpoints:<tenant_dbid>` section to the Web API Server Application, where a. `<tenant_dbid>` is the ID of a valid tenant in your configuration. b. The section contains at least one option whose name you may invent, and whose value is the name of an existing queue in a Business Process. • Change CodeBase71 to CodeBase72 in your applications (JSP files or Configuration Server). • Third Party Components 7.2 are required.

Endpoints

For more information on endpoints, see *Universal Routing 7.2 Interaction Routing Designer Help* and the sections on media server options in the "Configuration Options" chapter of the *Multimedia 7.2 Reference Manual.*

Multimedia 7.5 with Multimedia 7.2

Table 199 lists compatibility between 7.5 and 7.2 Multimedia components.

Table 199: Compatibility of Multimedia 7.5 and 7.2

Component	Compatible with Multimedia 7.2?
Chat Server	Yes, as long as the following options keep their default values: · `stop-abandoned-interaction = true` · `use-contact-server = true` · `transcript-auto-save = 0`
Classification Server	Yes, except that 7.5 versions of the following are required: • UCS and the UCS database schema • Knowledge Manager • Training Server • Third Party Components
Co-Browsing Server	Yes, except that load balancing is not supported.
E-Mail Server Java	Yes, except that 7.5 Third Party Components is required.
Interaction Server	Yes, with the following conditions: • You must update the Interaction Server database. • The `ignore-read-only-on-change` option must be set to `true` (for compatibility with Agent Desktop 7.2). • DB Server 7.5 is strongly suggested.
Interaction Workflow Samples	Yes.
Knowledge Manager	Yes, except that 7.5 versions of the following are required: • UCS and the UCS database schema • Classification Server • Training Server • Third Party Components
Third Party Components	No.

Table 199: Compatibility of Multimedia 7.5 and 7.2 (Continued)

Component	Compatible with Multimedia 7.2?
Training Server	Yes, except that 7.5 versions of the following are required: • UCS and the UCS database schema • Knowledge Manager • Classification Server • Third Party Components
Universal Contact Server	Yes, except that you must upgrade to 7.5 versions of the UCS database and Third Party Components.
Universal Contact Server Manager	Yes, except that Third Party Components 7.5 is required.
Universal Contact Server Transition Tool	Yes, except that Third Party Components 7.5 is required.
Web API Server	Yes.
Web Compound Samples	Yes, except that the value for the `applet-code-base` option must be set to `/CodeBase75`.

Multimedia 7.6.0 with Multimedia 7.5

In general, Multimedia 7.6.0 components are compatible with Multimedia 7.5 and 7.2. Details are provided in Table 200. However, note that you cannot install any Multimedia 7.6.0 component in the same directory as a Multimedia 7.5 or 7.2 component. For a mixed solution, Multimedia 7.6.0 components and older Multimedia components must be in separate directories.

Table 200: Compatibility of Multimedia 7.6.0 and 7.5

Component	Compatible with Multimedia 7.5?
Chat Server	Yes
Classification Server	Yes, except that Third Party Components 7.6.0 is required.
Co-Browsing Server	Yes
E-Mail Server Java	Yes, except that Third Party Components 7.6.0 is required.

Table 200: Compatibility of Multimedia 7.6.0 and 7.5 (Continued)

Component	Compatible with Multimedia 7.5?
Knowledge Manager	Yes, except that Third Party Components 7.6.0 is required.
Interaction Server	Yes
Interaction Workflow Samples	Yes
Third Party Components	No, cannot be deployed with Multimedia 7.5
Training Server	Yes, except that Third Party Components 7.6.0 is required.
Universal Contact Server	Yes, except that: • The database must be upgraded. • Third Party Components 7.6.0 is required.
Universal Contact Server Manager	Yes, except that Third Party Components 7.6.0 is required.
Universal Contact Server Transition Tool	Yes, except that Third Party Components 7.6.0 is required.
Web API Server and .NET Web API Server and Samples	Yes, except for functionality that is new in 7.6.0
Web Compound Samples	Yes, except that: • In the chat simple sample, typing notification does not function properly. • The `applet-code-base` option must be set to `CodeBase76`.

The following components have additional requirements for compatibility with Multimedia 7.2:

- Chat Server 7.6.0—the following options must have their default values (in parentheses):
  - `stop-abandoned-interaction` (`true`)
  - `use-contact-server` (`true`)
  - `transcript-auto-save` (`0`)
- Universal Contact Server Manager—UCS 7.5 or later is required.
- Interaction Server—the database must use the 7.5 or later schema, and DB Server 7.5 or later is strongly recommended.

- Knowledge Management components—at least 7.5 versions of the following are required:
  - UCS and the UCS database schema
  - All other Knowledge Management components (that is, Classification Server 7.6.0 requires Knowledge Manager and Training Server 7.5, Knowledge Manager 7.6.0 requires Classification Server and Training Server 7.5, and so on).

Multimedia 7.6.1 with Multimedia 7.6.0

In general, Multimedia 7.6.1 components are compatible with Multimedia 7.6.0 and 7.5. Details are provided in Table 201. However, note that you cannot install any Multimedia 7.6.1 component in the same directory as a Multimedia 7.6.0 or 7.5 component. For a mixed solution, Multimedia 7.6.1 components and older Multimedia components must be in separate directories.

Table 201: Compatibility of Multimedia 7.6.1 and 7.6.0

Component	Compatible with Multimedia 7.6.0?
Chat Server	Yes
Classification Server	Yes, except that Third Party Components 7.6.1 is required.
Co-Browsing Server	Yes
E-Mail Server Java	Yes, except that Third Party Components 7.6.1 is required.
Knowledge Manager	Yes, except that Third Party Components 7.6.1 is required.
Interaction Server	Yes, except that you must update the Interaction Server database (see “Interaction Server Database” on page 1286).
Interaction Server Proxy	Yes
Interaction Workflow Samples	Yes
Third Party Components	No
Training Server	Yes, except that Third Party Components 7.6.1 is required.

Table 201: Compatibility of Multimedia 7.6.1 and 7.6.0 (Continued)

Component	Compatible with Multimedia 7.6.0?
Universal Contact Server	Yes, except: • The database must be upgraded (see "UCS Database" on page 1285). • Third Party Components 7.6.1 is required. • Not compatible with Knowledge Manager 7.6.0.
Universal Contact Server Manager	Yes, except that Third Party Components 7.6.1 is required.
Universal Contact Server Proxy	Yes
Universal Contact Server Transition Tool	Yes, except that Third Party Components 7.6.1 is required.
Web API Server	Yes
.NET Web API Server and Samples	Yes, except for incompatibility with treatment of contact ID in the Platform SDK
Web Compound Samples	Yes

Multimedia 8.0.0 with Multimedia 7.6.x

In general, Multimedia 8.0.0 components are compatible with Multimedia 7.6.x. Details are provided in Table 202. However, note that you cannot install any Multimedia 8.0.0 component in the same directory as a Multimedia 7.6.x component. For a mixed solution, Multimedia 8.0.0 components and older Multimedia components must be in separate directories.

Table 202: Compatibility of Multimedia 8.0.0 and 7.6.x

Component	Compatible with Multimedia 7.6.x?
Chat Server	Yes
Classification Server	Yes, except that Third Party Components 8.0 is required.
Co-Browsing Server	Yes

Table 202: Compatibility of Multimedia 8.0.0 and 7.6.x (Continued)

Component	Compatible with Multimedia 7.6.x?
E-Mail Server Java	Yes, except that Third Party Components 8.0 is required.
Knowledge Manager	Yes, except that Third Party Components 8.0 is required.
Interaction Server	Yes
Interaction Server Proxy	Yes
Interaction Workflow Samples	Yes
SMS Server	No
Third Party Components	No
Training Server	Yes, except that Third Party Components 8.0 is required.
Universal Contact Server	Yes, except: • UCS 8.0 is not compatible with Knowledge Manager 7.6.0. • The database must be upgraded (see "UCS Database" on page 1285). • Third Party Components 8.0 is required.
Universal Contact Server Manager	Yes, except that Third Party Components 8.0 is required.
Universal Contact Server Proxy	Yes
Universal Contact Server Transition Tool	Yes, except that Third Party Components 8.0 is required.
Web API Server	Yes
.NET Web API Server and Samples	Yes

eServices 8.0.1 with Multimedia 8.0.0

In general, eServices 8.0.1 components are compatible with Multimedia 8.0.0. Details are provided in Table 203. However, note that you cannot install any eServices 8.0.1 component in the same directory as a Multimedia 8.0.0

component. For a mixed solution, eServices 8.0.1 components and older Multimedia components must be in separate directories.

Table 203: Compatibility of eServices 8.0.1 and Multimedia 8.0.0

Component	Compatible with Multimedia 8.0.0?
Chat Server	Yes
Classification Server	Yes, except that Java Environment and Libraries for eServices and UCS 8.0.1 is required.
E-Mail Server	Yes, except that Java Environment and Libraries for eServices and UCS 8.0.1 is required.
Knowledge Manager	Yes, except that Java Environment and Libraries for eServices and UCS 8.0.1 is required.
Interaction Server	Yes, except that the database must be upgraded.
Interaction Server Proxy	Yes
Interaction Workflow Samples	Yes
Java Environment and Libraries for eServices and UCS (previously called Third Party Components)	No
SMS Server	Yes, except that Java Environment and Libraries for eServices and UCS 8.0.1 is required.
Training Server	Yes, except that Java Environment and Libraries for eServices and UCS 8.0.1 is required.
Universal Contact Server	Yes, except: • The database must be upgraded (see "UCS Database" on page 1288). • Java Environment and Libraries for eServices and UCS 8.0.1 is required.
Universal Contact Server Manager	Yes, except that Java Environment and Libraries for eServices and UCS 8.0.1 is required.

Table 203: Compatibility of eServices 8.0.1 and Multimedia 8.0.0 (Continued)

Component	Compatible with Multimedia 8.0.0?
Universal Contact Server Proxy	Yes
Web API Server	Yes
.NET Web API Server and Samples	Yes

eServices 8.0.20 with eServices 8.0.1

In general, eServices 8.0.20 components are compatible with eServices 8.0.1. Details are provided in Table 204. However, note that you cannot install any eServices 8.0.20 component in the same directory as a eServices 8.0.1 component. For a mixed solution, eServices 8.0.20 components and older eServices/Multimedia components must be in separate directories.

Table 204: Compatibility of eServices 8.0.20 and eServices 8.0.1

Component	Compatible with eServices 8.0.1?
Chat Server	Yes
Classification Server	Yes, except that Java Environment and Libraries for eServices and UCS 8.0.2 is required.
E-Mail Server	Yes, except that: • Java Environment and Libraries for eServices and UCS 8.0.2 is required. • The e-mail samples supplied with Web API Server are not compatible with E-Mail Server 8.0.1 and older. For a workaround, see the Web API Server Release Note.
Knowledge Manager	Yes, except that Java Environment and Libraries for eServices and UCS 8.0.2 is required.
Interaction Server	Yes
Interaction Server Proxy	Yes
Interaction Workflow Samples	Yes

Table 204: Compatibility of eServices 8.0.20 and eServices 8.0.1 (Continued)

Component	Compatible with eServices 8.0.1?
Java Environment and Libraries for eServices and UCS (previously called Third Party Components)	No
SMS Server	Yes, except that Java Environment and Libraries for eServices and UCS 8.0.2 is required.
Social Messaging Server	No
Training Server	Yes, except that Java Environment and Libraries for eServices and UCS 8.0.2 is required.
Universal Contact Server	Yes, except: • The database must be upgraded (see "UCS Database" on page 1288). • Java Environment and Libraries for eServices and UCS 8.0.2 is required.
Universal Contact Server Manager	Yes, except that Java Environment and Libraries for eServices and UCS 8.0.2 is required.
Universal Contact Server Proxy	Yes
Web API Server	Yes, except that the e-mail samples are not compatible with E-Mail Server 8.0.1 and older. For a workaround, see the Web API Server Release Note.
.NET Web API Server and Samples	Yes, except that the e-mail samples are not compatible with E-Mail Server 8.0.1 and older. For a workaround, see the .NET Web API Server and Samples Release Note.

eServices 8.0.21 with eServices 8.0.20

In general, eServices 8.0.21 components are compatible with eServices 8.0.20. The main exception is that all Social Media components must be 8.0.21. The Social Media components are listed in footnote (a) of Table 205.

Table 205: Compatibility of eServices 8.0.21 and eServices 8.0.20

Component	Compatible with eServices 8.0.20?
Business Process for use with Facebook	Yes, except that Social Media components 8.0.21[a] are required.
Business Process for use with Twitter	Yes, except that Social Media components 8.0.21[a] are required.
Chat Server	Yes[b]
Classification Server	N/A (not upgraded in this release)
E-Mail Server	N/A (not upgraded in this release)
Genesys Driver for Use with Facebook	Yes, except that Social Media components 8.0.21[a] are required.
Genesys Driver for Use with Twitter	Yes, except that Social Media components 8.0.21[a] are required.
Knowledge Manager	Yes
Interaction Server	Yes
Interaction Server Proxy	N/A (not upgraded in this release)
Interaction Workflow Samples	N/A (not upgraded in this release)
Java Environment and Libraries for eServices and UCS	N/A (not upgraded in this release)
SMS Server	Yes
Social Messaging Plugin for Genesys Agent Desktop	Yes, except that Social Media components 8.0.21[a] are required.
Social Messaging Server	Yes, except that Social Media components 8.0.21[a] are required.
Training Server	N/A (not upgraded in this release)
Universal Contact Server	N/A (not upgraded in this release)

Table 205: Compatibility of eServices 8.0.21 and eServices 8.0.20 (Continued)

Component	Compatible with eServices 8.0.20?
Universal Contact Server Manager	N/A (not upgraded in this release)
Universal Contact Server Proxy	N/A (not upgraded in this release)
Web API Server	Yes
.NET Web API Server and Samples	Yes

a. Social Media components are Business Process for use with Facebook, Business Process for use with Twitter, Genesys Driver for Use with Facebook, Genesys Driver for Use with Twitter, Social Messaging Plugin for Genesys Agent Desktop, and Social Messaging Server.

b. strict behavioral compatibility could be achieved by setting settings/transcript-re-send-delay=0 (option introduced in 8.0.21 release). However it is recommended to keep the default value (15 seconds) which improves reliability of transcript re-cording in UCS.

Note: Detecting or analyzing the sentiment of social media interactions requires Classification Server and Training Server versions 8.0.200.00 or later.

eServices 8.1.0 with eServices 8.0.21

In general, eServices 8.1.0 components are compatible with eServices 8.0.21. The main exception is that all Social Media components must be 8.1.0. The Social Media components are listed in footnote (a) of Table 206.

Table 206: Compatibility of eServices 8.1.0 and eServices 8.0.21

Component	Compatible with eServices 8.0.21?
Business Process for use with Facebook	Yes, except that Social Media components 8.1.0[a] are required.
Business Process for use with Twitter	Yes, except that Social Media components 8.1.0[a] are required.
Chat Server	Yes, except that new 8.1.0 features are not supported

Table 206: Compatibility of eServices 8.1.0 and eServices 8.0.21 (Continued)

Component	Compatible with eServices 8.0.21?
Classification Server	Yes, except that Java Environment and Libraries for eServices and UCS 8.1.0 is required.
E-Mail Server	Yes, except that Java Environment and Libraries for eServices and UCS 8.1.0 is required.
Genesys Driver for Use with Facebook	Yes, except that Social Media components 8.1.0[a] are required.
Genesys Driver for Use with Twitter	Yes, except that Social Media components 8.1.0[a] are required.
Knowledge Manager	Yes, except that Java Environment and Libraries for eServices and UCS 8.1.0 is required.
Interaction Server	Yes
Interaction Server Proxy	N/A (not upgraded in this release)
Interaction Workflow Samples	Yes
Java Environment and Libraries for eServices and UCS	No
SMS Server	Yes
Social Messaging Plugin for Genesys Agent Desktop	N/A (not upgraded in this release)
Social Messaging Server	Yes, except that • Social Media components 8.1.0[a] are required. • Java Environment and Libraries for eServices and UCS 8.1.0 is required.
Training Server	Yes, except that Java Environment and Libraries for eServices and UCS 8.1.0 is required.

Table 206: Compatibility of eServices 8.1.0 and eServices 8.0.21 (Continued)

Component	Compatible with eServices 8.0.21?
Universal Contact Server	Yes, except that • The database must be upgraded. • Java Environment and Libraries for eServices and UCS 8.1.0 is required.
Universal Contact Server Manager	Yes, except that Java Environment and Libraries for eServices and UCS 8.1.0 is required.
Universal Contact Server Proxy	Yes
Web API Server	Yes, except that new 8.1.0 features are not supported
.NET Web API Server and Samples	Yes, except that new 8.1.0 features are not supported

a. Social Media components are Business Process for use with Facebook, Business Process for use with Twitter, Genesys Driver for Use with Facebook, Genesys Driver for Use with Twitter, Social Messaging Plugin for Genesys Agent Desktop, and Social Messaging Server.

eServices 8.1.1 with eServices 8.1.0

In general, eServices 8.1.1 components are compatible with eServices 8.1.0. The main exception is that all Social Media components must be 8.1.1. The Social Media components are listed in footnote (a) of Table 207.

Table 207: Compatibility of eServices 8.1.1 and eServices 8.1.0

Component	Compatible with eServices
Business Process for use with Facebook	Yes, except that Social Media components 8.1.1[a] are required.
Business Process for use with Twitter	Yes, except that Social Media components 8.1.1[a] are required.
Chat Server	N/A (not upgraded in this release)
Classification Server	N/A (not upgraded in this release)

Table 207: Compatibility of eServices 8.1.1 and eServices 8.1.0

Component	Compatible with eServices
E-Mail Server	N/A (not upgraded in this release)
Genesys Driver for Use with Facebook	Yes, except that Social Media components 8.1.1[a] are required.
Genesys Driver for Use with Twitter	Yes, except that Social Media components 8.1.1[a] are required.
Knowledge Manager	N/A (not upgraded in this release)
Interaction Server	This is a restricted release for Windows OS that supports Stat Server II. The database must be upgraded.
Interaction Server Proxy	N/A (not upgraded in this release)
Interaction Workflow Samples	N/A (not upgraded in this release)
Interaction Workspace Plugin for Facebook	Yes, except that Social Media components 8.1.1[a] are required.
Interaction Workspace Plugin for Twitter	Yes, except that Social Media components 8.1.1[a] are required.
Java Environment and Libraries for eServices and UCS	N/A (not upgraded in this release)
SMS Server	N/A (not upgraded in this release)
Social Messaging Plugin for Genesys Agent Desktop	N/A (not upgraded in this release)
Social Messaging Server	Yes, except that Social Media components 8.1.1[a] are required.
Training Server	N/A (not upgraded in this release)
Universal Contact Server	N/A (not upgraded in this release)
Universal Contact Server Manager	N/A (not upgraded in this release)

Table 207: Compatibility of eServices 8.1.1 and eServices 8.1.0

Component	Compatible with eServices
Universal Contact Server Proxy	N/A (not upgraded in this release)
Web API Server	N/A (not upgraded in this release)
.NET Web API Server and Samples	N/A (not upgraded in this release)

a. Social Media components are Business Process for use with Facebook, Business Process for use with Twitter, Genesys Driver for Use with Facebook, Genesys Driver for Use with Twitter, Interaction Workspace Plug-in for Facebook, Interaction Workspace Plug-in for Twitter, Social Messaging Plugin for Genesys Agent Desktop, and Social Messaging Server.

eServices 8.1.2 with eServices 8.1.1

In general, eServices 8.1.2 components are compatible with eServices 8.1.1. The main exception is that all Social Media components must be 8.1.2. The Social Media components are listed in footnote (a) of Table 209.

Table 208: Compatibility of eServices 8.1.2 and eServices 8.1.1

Component	Compatible with eServices
Business Process for use with Facebook	Yes, except that Social Media components 8.1.2[a] are required.
Business Process for use with Twitter	Yes, except that Social Media components 8.1.2[a] are required.
Business Process for use with RSS	Yes, except that Social Media components 8.1.2[a] are required.
Chat Server	N/A (not upgraded in this release)
Classification Server	N/A (not upgraded in this release)
E-Mail Server	Yes, except that E-Mail Server is only compatible with Universal Contact Server (UCS) 8.1.1
Genesys Driver for Use with Facebook	Yes, except that Social Media components 8.1.2[a] are required.

Table 208: Compatibility of eServices 8.1.2 and eServices 8.1.1 (Continued)

Component	Compatible with eServices
Genesys Driver for Use with Twitter	Yes, except that Social Media components 8.1.2[a] are required.
Genesys Driver for Use with RSS	Yes, except that Social Media components 8.1.2[a] are required.
Knowledge Manager	N/A (not upgraded in this release)
Interaction Server	Yes[b]
Interaction Server Proxy	N/A (not upgraded in this release)
Interaction Workflow Samples	N/A (not upgraded in this release)
Interaction Workspace Plugin for Facebook	Yes, except that Social Media components 8.1.2[a] are required.
Interaction Workspace Plugin for Twitter	Yes, except that Social Media components 8.1.2[a] are required.
Interaction Workspace Plugin for RSS	Yes, except that Social Media components 8.1.2[a] are required.
Java Environment and Libraries for eServices and UCS	N/A (not upgraded in this release)
SMS Server	N/A (not upgraded in this release)
Social Messaging Plugin for Genesys Agent Desktop	Yes, except that Social Media components 8.1.2[a] are required.
Social Messaging Server	Yes, except that Social Media components 8.1.2[a] are required.
Training Server	N/A (not upgraded in this release)
Universal Contact Server[c]	Yes

Table 208: Compatibility of eServices 8.1.2 and eServices 8.1.1 (Continued)

Component	Compatible with eServices
Universal Contact Server Manager[c]	Yes, with both UCS 8.1.0 and 8.1.2
Universal Contact Server Proxy[c]	Yes, with both UCS 8.1.0 and 8.1.2
Web API Server	Yes
.NET Web API Server and Samples	Yes

a. Social Media components are Business Process for use with Facebook, Business Process for use with Twitter, Business Process for use with RSS, Genesys Driver for Use with Facebook, Genesys Driver for Use with Twitter, Genesys Driver for Use with RSS, Interaction Workspace Plug-in for Facebook, Interaction Workspace Plug-in for Twitter, Interaction Workspace Plug-in for RSS, Social Messaging Plugin for Genesys Agent Desktop, and Social Messaging Server.

b. Note that features specific to the support of Stat Server II that were present in the 8.1.1 restricted release of Interaction Server are discontinued in the 8.1.2 release.

c. Universal Contact Server (UCS), Universal Contact Server Manager, and Universal Contact Server Proxy 8.1.1 are delivered as part of the eServices 8.1.2 release.

eServices 8.1.201 with eServices 8.1.2

In general, eServices 8.1.201 components are compatible with eServices 8.1.2. The main exception is that all Social Media components must be 8.1.201 or later. The Social Media components are listed in footnote (a) of Table 209.

Table 209: Compatibility of eServices 8.1.201 and eServices 8.1.2

Component	Compatible with eServices
Business Process for use with Facebook	Yes, except that Social Media components 8.1.201[a] are required.
Business Process for use with Twitter	Yes, except that Social Media components 8.1.201[a] are required.
Business Process for use with RSS	Yes, except that Social Media components 8.1.201[a] are required.

Table 209: Compatibility of eServices 8.1.201 and eServices 8.1.2 (Continued)

Component	Compatible with eServices
Chat Server	N/A (not upgraded in this release)
Classification Server	N/A (not upgraded in this release)
E-Mail Server	Yes, except that E-Mail Server is only compatible with Universal Contact Server (UCS) 8.1.1 and higher
Genesys Driver for Use with Facebook	Yes, except that Social Media components 8.1.201[a] are required.
Genesys Driver for Use with Twitter	Yes, except that Social Media components 8.1.201[a] are required.
Genesys Driver for Use with RSS	Yes, except that Social Media components 8.1.201[a] are required.
Knowledge Manager	N/A (not upgraded in this release)
Interaction Server	N/A (not upgraded in this release)
Interaction Server Proxy	N/A (not upgraded in this release)
Interaction Workflow Samples	N/A (not upgraded in this release)
Interaction Workspace Plugin for Facebook	Yes, except that Social Media components 8.1.201[a] are required.
Interaction Workspace Plugin for Twitter	Yes, except that Social Media components 8.1.201[a] are required.
Interaction Workspace Plugin for RSS	Yes, except that Social Media components 8.1.201[a] are required.
Java Environment and Libraries for eServices and UCS	N/A (not upgraded in this release)
SMS Server	N/A (not upgraded in this release)

Table 209: Compatibility of eServices 8.1.201 and eServices 8.1.2 (Continued)

Component	Compatible with eServices
Social Messaging Plugin for Genesys Agent Desktop	Yes, except that Social Media components 8.1.201[a] are required.
Social Messaging Server	Yes, except that Social Media components 8.1.201[a] are required.
Training Server	N/A (not upgraded in this release)
Universal Contact Server	N/A (not upgraded in this release)
Universal Contact Server Manager	N/A (not upgraded in this release)
Universal Contact Server Proxy	N/A (not upgraded in this release)
Web API Server	N/A (not upgraded in this release)
.NET Web API Server and Samples	N/A (not upgraded in this release)

a. Social Media components are Business Process for use with Facebook, Business Process for use with Twitter, Business Process for use with RSS, Genesys Driver for Use with Facebook, Genesys Driver for Use with Twitter, Genesys Driver for Use with RSS, Interaction Workspace Plug-in for Facebook, Interaction Workspace Plug-in for Twitter, Interaction Workspace Plug-in for RSS, Social Messaging Plugin for Genesys Agent Desktop, and Social Messaging Server.

eServices 8.1.3 with eServices 8.1.201

In general, eServices 8.1.3 components are compatible with eServices 8.1.201. Details are provided in Table 210.

Table 210: Compatibility of eServices 8.1.3 and eServices 8.1.201

Component	Compatible with eServices
Business Process for use with Facebook	N/A (not upgraded in this release)
Business Process for use with Twitter	N/A (not upgraded in this release)
Business Process for use with RSS	N/A (not upgraded in this release)
Chat Server	N/A (not upgraded in this release)
Classification Server	Yes
E-Mail Server	Yes, except that E-Mail Server is only compatible with Universal Contact Server (UCS) 8.1.1 and higher
Genesys Driver for Use with Facebook	N/A (not upgraded in this release)
Genesys Driver for Use with Twitter	N/A (not upgraded in this release)
Genesys Driver for Use with RSS	N/A (not upgraded in this release)
Knowledge Manager	Yes
Interaction Server	Yes
Interaction Server Proxy	Yes
Interaction Workflow Samples	Yes
Interaction Workspace Plugin for Facebook	N/A (not upgraded in this release)

Table 210: Compatibility of eServices 8.1.3 and eServices 8.1.201 (Continued)

Component	Compatible with eServices
Interaction Workspace Plugin for Twitter	N/A (not upgraded in this release)
Interaction Workspace Plugin for RSS	N/A (not upgraded in this release)
Java Environment and Libraries for eServices and UCS	N/A (not upgraded in this release)
SMS Server	Yes
Social Messaging Plugin for Genesys Agent Desktop	N/A (not upgraded in this release)
Social Messaging Server	N/A (not upgraded in this release)
Training Server	Yes
Universal Contact Server	Yes
Universal Contact Server Manager	No, requires Universal Contact Server 8.1.300
Universal Contact Server Proxy	Yes
Web API Server	N/A (not upgraded in this release)
.NET Web API Server and Samples	N/A (not upgraded in this release)

eServices 8.1.4 with eServices 8.1.3

In general, eServices 8.1.4 components are compatible with eServices 8.1.3. Details are provided in Table 210.,

Table 211: Compatibility of eServices 8.1.4 and eServices 8.1.3

Component	Compatible with eServices 8.1.3
Business Process for use with Facebook	Yes, except that Social Media components 8.1.4 are required.
Business Process for use with Twitter	Yes, except that Social Media components 8.1.4 are required.
Business Process for use with RSS	Yes, except that Social Media components 8.1.4 are required.
Chat Server	N/A (not upgraded in this release)
Classification Server	N/A (not upgraded in this release)
E-Mail Server	Yes
Genesys Driver for Use with Facebook	No, requires Social Messaging Server 8.1.4
Genesys Driver for Use with Twitter	No, requires Social Messaging Server 8.1.4
Genesys Driver for Use with RSS	No, requires Social Messaging Server 8.1.4
Knowledge Manager	N/A (not upgraded in this release)
Interaction Server	Yes
Interaction Server Proxy	Yes
Interaction Workflow Samples	N/A (not upgraded in this release)
Interaction Workspace Plugin for Facebook	Yes, except that • Some new features are not supported. • Social Media components 8.1.4 are required.

Table 211: Compatibility of eServices 8.1.4 and eServices 8.1.3 (Continued)

Component	Compatible with eServices 8.1.3
Interaction Workspace Plugin for Twitter	Yes, except that • Some new features are not supported. • Social Media components 8.1.4 are required.
Interaction Workspace Plugin for RSS	N/A (not upgraded in this release)
Java Environment and Libraries for eServices and UCS	N/A (not upgraded in this release)
SMS Server	N/A (not upgraded in this release)
Social Messaging Plugin for Genesys Agent Desktop	N/A (not upgraded in this release)
Social Messaging Server	No, requires Chat Server 8.1.001 or later and UCS 8.1.400.11 or later
Training Server	N/A (not upgraded in this release)
Universal Contact Server	Yes
Universal Contact Server Manager	Yes
Universal Contact Server Proxy	Yes
Web API Server	N/A (not upgraded in this release)
.NET Web API Server and Samples	N/A (not upgraded in this release)

eServices 8.5.0 with eServices 8.1.4

In the 8.5 release, the Social Media components had a separate release, as Genesys Social Engagement. This section provides information about both Genesys Social Engagement 8.5.0 and eServices 8.5.0.

In general, Social Engagement 8.5.0 components are compatible with eServices 8.1.4. Details are provided in Table 212.,

Table 212: Compatibility of eServices 8.5.0 and eServices 8.1.4

Component	Compatible with eServices 8.1.4?
Business Process for use with Facebook	Yes, except that Social Media components 8.5.0 are required
Business Process for use with Twitter	Yes, except that Social Media components 8.5.0 are required
Business Process for use with RSS	Yes, except that Social Media components 8.5.0 are required
Chat Server	N/A (not upgraded in this release)
Classification Server	N/A (not upgraded in this release)
E-Mail Server	Yes
Genesys Driver for Use with Facebook	Yes, except that Social Media components 8.5.0 are required
Genesys Driver for Use with RSS	Yes, except that Social Media components 8.5.0 are required
Genesys Driver for Use with Twitter	Yes, except that Social Media components 8.5.0 are required
Knowledge Manager	N/A (not upgraded in this release)
Interaction Server	Yes
Interaction Server Proxy	Yes
Interaction Workflow Samples	N/A (not upgraded in this release)
Social Media Plug-in for Workspace Desktop Edition	Yes, except that Social Media components 8.5.0 are required
Java Environment and Libraries for eServices and UCS	N/A (not upgraded in this release)

Table 212: Compatibility of eServices 8.5.0 and eServices 8.1.4 (Continued)

Component	Compatible with eServices 8.1.4?
SMS Server	N/A (not upgraded in this release)
Social Messaging Plugin for Genesys Agent Desktop	N/A (not upgraded in this release)
Social Messaging Server	Yes, except that Social Media components 8.5.0 are required
Training Server	N/A (not upgraded in this release)
Universal Contact Server	Yes, except that database upgrade is required
Universal Contact Server Manager	Yes
Universal Contact Server Proxy	Yes
Web API Server	N/A (not upgraded in this release)
.NET Web API Server and Samples	N/A (not upgraded in this release)

Chapter

61 Changes in Components and Configuration Options

This section provides information that you need to upgrade components and configuration options for the following releases:

- From MCR release 7.0 to MCR 7.1
- From MCR release 7.1 to Multimedia 7.2
- From Multimedia release 7.2 to 7.5, 7.5 to 7.6.0, 7.6.0 to 7.6.1, 7.6.1 to 8.0.0
- From Multimedia release 8.0.0 to eServices 8.0.1
- From eServices release 8.0.1 to 8.0.20, 8.0.20 to 8.0.201, 8.0.201 to 8.1.0, 8.1.0 to 8.1.1, 8.1.1 to 8.1.2, 8.1.2 to 8.1.201, 8.1.201 to 8.1.3, 8.1.3 to 8.1.4, and 8.1.4 to 8.5.0.

This section only includes changes (additions, deletions, and modifications) in the product that you may need to address during the migration process. The product documentation for each release contains a comprehensive list of changes from release to release, in the following:

- The chapters on configuration options in the Reference Manual.
- The overview chapters in the Deployment Guide.

Note: Genesys does not issue separate documentation sets for "second point" releases (such as 7.6.1 versus 7.6.0), but documents are updated for these releases. To find descriptions of changes and additions in release 8.0.1, consult documents whose part number includes the string *8.0.1*—for example, 80mm_us_03-2010_v8.0.101.00. The part number is at the bottom of page 2 in PDF documents, and in the "About This File" topic in Help files.

There are two sections in this chapter:

Component Changes

This section describes changes in MCR/Multimedia/eServices components that have consequences for configuration.

Multi-Channel Routing 7.1

Interaction Workflow Designer (IWD) is an independent component of MCR 7.0. In the 7.1 release, IWD is a part of Interaction Routing Designer (IRD), which is a component of Genesys Universal Routing. The functioning of the IWD portion of IRD 7.1 is generally the same as that of IWD 7.0. For details, see the Universal Routing 7.1 Business Process User's Guide.

There are no other component changes between Multi-Channel Routing 7.0 and 7.1.

Multimedia 7.2

In the 7.2 release, Interaction Server has a new Application type in the Configuration Layer, namely `Interaction Server`. This allows it to operate in a multi-tenant environment. For backward compatibility, Interaction Server can also be of type `T-Server`. For details, see the sections on Interaction Server in the "Multi-Tenancy" and "Ongoing Administration" chapters of the *Multimedia 7.2 User's Guide.*

Multimedia 7.2 adds web collaboration (sometimes also called co-navigation or co-browsing) as an optional functionality. The component that supports this new functionality is called Co-browsing Server. If you have Genesys Web Collaboration, Co-browsing Server is installed as part of the integrated installation.

Changes in Connections

In Multimedia 7.2, there are the following changes in connections that you can configure between components:

- Chat Server 7.2 supports the External Services Protocol (ESP) for submitting text messages from routing strategies. To enable this feature, Interaction Server must have a connection to Chat Server.
- A new feature in Multimedia 7.2 allows users to access UCS data such as contact history via a secure website. To enable this feature, Web API Server must have a connection to UCS.

Multimedia 7.5

There are no relevant component changes in release 7.5.

Multimedia 7.6.0

There are no relevant component changes in release 7.6.0.

Multimedia 7.6.1

This release adds the following components:

- Interaction Proxy Server
- UCS Proxy Server

Changes in Connections

In Multimedia 7.6.1, the new Event Logger functionality requires a DAP (Database Access Point) for each logger database. You should connect Interaction Server to each such DAP. For details on the Event Logger, see the "Event Logger" section in the "Interaction Server: Advanced Topics" section of the "Ongoing Administration and Other Topics" chapter of the *Multimedia 7.6 User's Guide*.

Multimedia 8.0.0

In this release:

- SMS Server is added.
- The Simple Samples have been extended, and Web Compound Samples are discontinued.

eServices 8.0.1

In this release:

- E-Mail Server Java is renamed E-Mail Server.
- Genesys Web Media is renamed Genesys Chat.
- Multimedia Third Party Components is renamed Java Environment and Libraries for eServices and UCS.
- The UCS Transition Tool is delivered on its own CD, not on the eServices product CD.

eServices 8.0.20

In this release:

- The following components are added:
  - Social Messaging Server
  - Business Process for Use with Facebook

- Business Process for Use with Twitter
- Social Messaging Plugin for Genesys Agent Desktop
- Genesys Driver for Use with Facebook
- Genesys Driver for Use with Twitter

Deployment and use of these new components is described in the *Social Media Solution Guide,* available on the Genesys Documentation website at `http://docs.genesys.com`.

- The integrated JMS Capture Point functionality, new to Interaction Server in release 8.0.20, requires a Capture Point Application object in the Configuration Server database. There is no installation package for this object, so you must add it manually, as described in the *eServices 8.0 Deployment Guide* (version 8.0.20x).

Note: Universal Contact Server (UCS) 8.0.20 is supplied as part of eServices 8.0.20. There is also an 8.0.3 release of UCS that is part of the Conversation Manager product and is not compatible with eServices 8.0.20. This section and other sections dealing with eServices 8.0.20 apply only to UCS 8.0.20.

However, migration to UCS 8.0.3 is similar to migration between other versions of UCS, being mainly a matter of running upgrade scripts. See "Databases" on page 1282 for a general description.

eServices 8.0.21

In this release there are no components added or removed.

The information concerning UCS and the Capture Point Application that is provided in the preceding section ("eServices 8.0.20") applies to eServices 8.0.21 also. In addition, release 8.0.21 introduces Integrated XML Files Capture Point functionality. Like the JMS Capture Point functionality, it requires a Capture Point Application object in the Configuration Server database. There is no installation package for this object, so you must add it manually, as described in the *eServices 8.0 Deployment Guide* (version 8.0.2x).

Be aware that there are two separate application templates: one for the JMS Integrated Capture Point and one for the XML Files Integrated Capture Point.

eServices 8.1.0

In this release there are no components added or removed. Some components are provided in version 8.0.2x or earlier.

The information concerning UCS and the Capture Point Application that is provided in "eServices 8.0.20" on page 1217 applies to eServices 8.1.0 also. In addition, release 8.1.0 introduces Database Capture Point functionality. Like the JMS Capture Point and File Capture Point functionalities, it requires a Capture Point Application object in the Configuration Server database. There

is no installation package for this object, so you must add it manually, as described in the eServices 8.0 Deployment Guide (version 8.0.2x).

Be aware that there are separate application templates for the JMS Integrated Capture Point, XML Files Integrated Capture Point, and Database Capture Point.

This release adds the new application type Social Messaging Server (previously, the Third Party server type was used for Social Messaging Server).

eServices 8.1.1

The following components are added in this release:

- Interaction Workspace Plugin for Facebook
- Interaction Workspace Plugin for Twitter

Deployment and use of these new components is described in the Social Media Solution Guide, available on the Genesys Documentation website at `http://docs.genesys.com`.

eServices 8.1.2

- The following components are added in this release:
  - Business Process for Use with RSS
  - Genesys Driver for Use with RSS
  - Interaction Workspace Plug-in for RSS

Deployment and use of these new components is described in the Social Media Solution Guide, available on the Genesys Documentation website at `http://docs.genesys.com`.

The information concerning UCS and the Capture Point Application that is provided in "eServices 8.0.20" on page 1217 applies to eServices 8.1.2 also. In addition, release 8.1.2 introduces Web Service Capture Point functionality. Like the JMS Capture Point, File Capture Point, and Database Capture Point functionalities, it requires a Capture Point Application object in the Configuration Server database. There is no installation package for this object, so you must add it manually, as described in the eServices 8.1 Deployment Guide (version 8.1.2x). Be aware that there are separate application templates for the JMS Integrated Capture Point, XML Files Integrated Capture Point, Database Capture Point, and Web Service Capture Point.

eServices 8.1.201

In this release there are no components added or removed.

The information concerning UCS and the Capture Point Application that is provided in "eServices 8.0.20" on page 1217 applies to eServices 8.1.201 also. The Web Service Capture Point**,** Database Capture Point, JMS Capture Point,

and File Capture Point functionalities all require a Capture Point Application object in the Configuration Server database. There is no installation package for this object, so you must add it manually, as described in the eServices 8.1 Deployment Guide (version 8.1.2x).

Be aware that there are separate application templates for the JMS Integrated Capture Point, XML Files Integrated Capture Point, Database Capture Point, and Web Service Capture Point.

eServices 8.1.3

In this release there are no components added or removed.

The Web Service Capture Point**,** Database Capture Point, JMS Capture Point, and File Capture Point functionalities all require a Capture Point Application object in the Configuration Server database. There is no installation package for this object, so you must add it manually, as described in the eServices 8.1 Deployment Guide (version 8.1.3x).

Be aware that there are separate application templates for the JMS Integrated Capture Point, XML Files Integrated Capture Point, Database Capture Point, and Web Service Capture Point.

eServices 8.1.4

In this release there are no components added or removed.

Social Messaging Plugin for Genesys Agent Desktop is not supported in this release.

The information about integrated capture points in “eServices 8.1.3” on this page applies to this release as well.

eServices 8.5.0

In the 8.5 release, the Social Media components had a separate release, as Genesys Social Engagement. This section provides information about both Genesys Social Engagement 8.5.0 and eServices 8.5.0.

- In this release, Social Media Plug-in for Workspace Desktop Edition replaces the previous plug-ins: Interaction Workspace Plugin for Facebook, Interaction Workspace Plugin for RSS, and Interaction Workspace Plugin for Twitter.
- Interaction Server’s installation package delivers the `javacounters.jar` file, which may be required for obtaining Interaction Server JVM counters via `RequestPing`.
- Web API Server is no longer included in the eServices product. Starting with the 8.5.0 release, it is a separate product. Information on upgrading from a previous version is available on the Genesys documentation website.

You can also use Web API Server 8.1.2 (the release prior to 8.5.0) with eServices 8.5.0, but note that Web API Server 8.1.2 does not work with Stat Server 8.1.1 and above

Changes to Configuration Options

Multi-Channel Routing Changes from 7.0 to 7.1

Table 213 lists changes to the options for specific components of Multi-Channel Routing between releases 7.0 and 7.1. For complete descriptions of all MCR options, and a list of retired options in release 7.1, see the *Multi-Channel Routing 7.1 Reference Manual.*

Table 213: Configuration Option Changes from 7.0 to 7.1

Component Name	Section/Option	Type of Change
Universal Contact Server (UCS)	settings/enable-reporting	New option
	settings/fieldcode-format-locale	New option
	settings/hide-attached-data	Default changed from `false` to `true`
	settings/log-memory-usage	New option
	settings/primary-attribute-lookup-strategy	New option
	settings/retry-on-deadlock	New option
	DAP object: options/max-connections	Default changed from `0` to `40`
	DAP object: options/max-idle-time	Default changed from `0` to `310`
	DAP object: JDBC info/QueryTimeout	Recommendation changed from `60` to `120`

Table 213: Configuration Option Changes from 7.0 to 7.1 (Continued)

Component Name	Section/Option	Type of Change
Interaction Server	settings/ignore-read-only-on-submit	New option
	settings/not-ready-on-invitation-timeout	New option
Web API Server	no changes	
Web Compound Samples	miscellaneous/tenant	Default value changed from `<Tenant_Name>` to No default value
	miscellaneous/applets-code-base	Default value changed from `/CodeBase70` to `/CodeBase71`

Table 213: Configuration Option Changes from 7.0 to 7.1 (Continued)

Component Name	Section/Option	Type of Change
Chat Server	no changes	
E-Mail Server Java	email-processing/autowar-detect-period	New option
	email-processing/default-from-address	New option
	email-processing/enable-autowar-detect	New option
	email-processing/enable-extract	New option
	email-processing/fieldcode-format-locale	New option
	email-processing/hide-attached-data	Default changed from `false` to `true`
	email-processing/inbound-processor-high-watermark	Default changed from `50` to `200`
	email-processing/inbound-processor-low-watermark	Default changed from `10` to `20`
	email-processing/inbound-submitter-high-watermark	Default changed from `50` to `200`
	email-processing/inbound-submitter-low-watermark	Default changed from `10` to `20`
	email-processing/outbound-submitter-high-watermark	Default changed from `50` to `200`
	email-processing/outbound-submitter-low-watermark	Default changed from `10` to `20`

Table 213: Configuration Option Changes from 7.0 to 7.1 (Continued)

Component Name	Section/Option	Type of Change
E-Mail Server Java (continued)	email-encoding/x-user-defined	Valid values changed to any encoding supported by JRE 1.4.2
	settings/cnx-to-ucs-wait-time	New option
E-Mail Server Java (continued)	settings/max-cnx-to-ucs	New option
Classification Server	cengine/log-level	Default changed from `all` to `standard`
	cengine/model-check-interval	Units changed from minutes to seconds (default unchanged)
Training Server	cengine/log-level	Default changed from `all` to `standard`
	cengine/model-check-interval	Units changed from minutes to seconds (default unchanged)
Knowledge Manager	general/update-cfg	New option

Multi-Channel Routing 7.1 to Multimedia 7.2

Table 214 lists changes to the options for specific components between MCR 7.1 and Multimedia 7.2. For complete descriptions of all Multimedia options, and a list of retired options in release 7.2, see the *Multimedia 7.2 Reference Manual.*

Table 214: Configuration Option Changes from 7.1 to 7.2

Component Name	Section/Option	Type of Change
Universal Contact Server (UCS)	settings/archiving-nb-records-per-task New	option
	settings/archiving-task-pool-size	New option

Table 214: Configuration Option Changes from 7.1 to 7.2 (Continued)

Component Name	Section/Option	Type of Change
Interaction Server	settings/delay-updates	New option
	settings/third-party-server-queue-size	New option
	settings/third-party-server-window-size	New option
Web API Server	endpoints:<tenant_dbid>/default	New section and option
Web Compound Samples	miscellaneous/applets-code-base	The default value was changed from `/CodeBase71` to `/CodeBase72`.
Chat Server	endpoints:<tenant_dbid>/default	New section and option
	esp-settings/esp-default-nickname	New section and option
	esp-settings/esp-server-port	New section and option
E-Mail Server Java	email-processing/autowar-max-reply-count	New option
	email-processing/autowar-scan-all-threads-of-contact	New option
	email-processing/enable-big-msg-stripping	New option
	email-processing/quote-prefix	New option
	pop-client/endpoint	New option
	iwe-processing/endpoint	New option
	endpoints:<tenant_dbid>/default	New section and option
	endpoints:<tenant_dbid>/endpoint-name-1	New section and option
	endpoints:<tenant_dbid>/endpoint-name-2	New section and option
Classification Server	settings/hide-attached-data	New section and option
Training Server	No changes	
Knowledge Manager	No changes	
UCS Manager	No changes	

Multimedia 7.2 to 7.5

Table 215 lists changes to the options for specific components between Multimedia 7.2 and 7.5. For complete descriptions of all Multimedia options, and a list of retired options in release 7.5, see the *Multimedia 7.5 Reference Manual.*

Table 215: Configuration Option Changes from Multimedia 7.2 to 7.5

Component Name	Section/Option	Type of Change
Universal Contact Server (UCS)	settings/allow-missing-index	New option
	settings/allow-additional-column	New option
	settings/srl-cache-load-attachment-summary	New option
	settings/ucsapi-backlog	New option
	settings/ucsapi-duplex-mode	New option
	DAP object (JDBC): inactive-scroll-timeout	New option
	DAP object (JDBC): inactive-txn-timeout	New option
	DAP object (JDBC): login-timeout	Previously undocumented option
	DAP object (JDBC): long-query-timeout	Previously undocumented option
	DAP object (JDBC): connection-failed-retry	Previously undocumented option
	DAP object (JDBC): service	Previously undocumented option
Co-Browsing Server	General/DebugMode	Removed
	General/web-server-host	New option
Interaction Server	settings/routing-timeout	Maximum value increased to 525,600
	log-control	New section with four new options; see the *Multimedia 7.5 Reference Manual*
	settings/ignore-read-only-on-change	New option
	settings/allow-duplicates-in-change	New option
Web API Server	No changes	

Table 215: Configuration Option Changes from Multimedia 7.2 to 7.5 (Continued)

Component Name	Section/Option	Type of Change
Web Compound Samples	applets-code-base	Default changed to `/CodeBase75`
Chat Server	settings/stop-abandoned-interaction	New option
	settings/transcript-auto-save	New option
	settings/use-contact-server	New option
	settings/user-register-timeout	New option
E-Mail Server Java	mime-customization	New section with eight new options; see the *Multimedia 7.5 Reference Manual*.
	email-processing/contact-identification	New option
	email-processing/enable-mail-loops	New option
	email-processing/quote-from.	New option
	email-processing/quote-sent	New option
	email-processing/quote-subject	New option
	email-processing/subject-forward-prefix	New option
	email-processing/subject-reply-prefix	New option
	pop-client/allow-bad-msg-size	New option
	settings/ucs-duplex-mode	New option
Classification Server	cengine/subject-body-header	New option
	license/license-file	New section and option
Training Server	cengine/model-check-interval	Default changed from `1` to `30`
Knowledge Manager	general/subject-body-header	New option
UCS Manager	No changes	

Multimedia 7.5 to 7.6.0

Table 216 lists changes to the options for specific components between Multimedia 7.5 and 7.6.0. For complete descriptions of all Multimedia options,

see the *Multimedia 7.6 Reference Manual.* There were no retired options in release 7.6.0.

Table 216: Configuration Option Changes from Multimedia 7.5 to 7.6.0

Component Name	Section/Option	Type of Change
Chat Server	settings/web-user-max-messages	New option
	settings/xml-request-max-size	New option
Classification Server	No changes	
Co-Browsing Server	No changes	
E-Mail Server Java	email-processing/enable-message-id-check	New option
	email-processing/enable-same-mail-from-mailboxes	New option
Interaction Server	log-filter	New section, with new option `default-filter-type`
	log-filter-data	New section
	settings/default-view-freeze-interval	New option
	settings/low-pull-threshold	New option
	settings/high-pull-threshold	New option
	settings/submit-timer-interval	New option
	freeze-interval	New option in Interaction Queue View object (`View` section of the `Annex` tab)
Knowledge Manager	update-cfg	Default changed to `true`
Training Server	No changes	
UCS Manager	No changes	

Table 216: Configuration Option Changes from Multimedia 7.5 to 7.6.0 (Continued)

Component Name	Section/Option	Type of Change
Universal Contact Server (UCS)	settings/log-db-flow-rate	New option
	settings/openmedia-create-full-interaction	New option
	settings/synchronize-cache	New option
	settings/synchronize-contact-metadata-attributes	New option
	settings/synchronize-ixn-attributes	New option
	settings/synchronize-ixn-metadata-attributes	New option
	settings/ucsapi-loopback-timeout	New option
Web API Server	No changes	
Web Compound Samples	miscellaneous/applets-code-base	Default changed from `/CodeBase75` to `/CodeBase76`

Multimedia 7.6.0 to 7.6.1

Table 217 lists changes to the options for specific components between Multimedia 7.6.0 and 7.6.1. For complete descriptions of all Multimedia options, see the *Multimedia 7.6 Reference Manual.* There were no retired options in release 7.6.1.

Table 217: Configuration Option Changes from Multimedia 7.6.0 to 7.6.1

Component Name	Section/Option	Type of Change
Chat Server	No changes	
Classification Server	No changes	
Co-Browsing Server	No changes	
E-Mail Server Java	No changes	

Table 217: Configuration Option Changes from Multimedia 7.6.0 to 7.6.1 (Continued)

Component Name	Section/Option	Type of Change
Interaction Server	settings/max-workbin-interactions	New option
	DAP Object for Event Logger: esp-custom-data	New section
	DAP Object for Event Logger: esp-service-data	New section
	DAP Object for Event Logger: event-filtering	New section, with options log-agent-activity, log-agent-state, log-esp-service, log-queue, log-strategy, and log-userdata
	DAP Object for Event Logger: itx-custom-data	New section
	DAP Object for Event Logger: logger-settings	New section, with options batch-size, mandatory-logging, max-queue-size, and storing-timeout
Interaction Server Proxy	One section (log), five options	New component
Knowledge Manager	No changes	
Training Server	No changes	
UCS Manager	No changes	
Universal Contact Server (UCS)	log-memory-usage	Default changed from `FALSE` to `TRUE`
	log-db-flow-rate	Default changed from `FALSE` to `TRUE`
	settings/convert-idn-to-unicode	New option
	settings/replace-blank-fieldcode	New option
Universal Contact Server Proxy	One section (log), five options	New component
Web API Server	No changes	
Web Compound Samples	miscellaneous/applets-code-base	Default changed from `/CodeBase76` to `/CodeBase761`

Multimedia 7.6.1 to 8.0.0

Table 218 lists changes to the options for specific components between Multimedia 7.6.1 and 8.0.0. For complete descriptions of all Multimedia options, see the *Multimedia 8.0 Reference Manual.* There were no retired options in release 8.0.0.

Table 218: Configuration Option Changes from Multimedia 7.6.1 to 8.0.0

Component Name	Section/Option	Type of Change
Chat Server	No changes	
Classification Server	No changes	
Co-Browsing Server	No changes	
E-Mail Server Java	outbound-collaboration-invite	New section, with options `attach-parent-email`, `attach-parent-email-masquerading-from-address`, `quote-parent-email`
	email-processing/cc-userdata-limit	New option
	pop-client, smtp-client	New option `enable-starttls` added to both sections
Interaction Server	udata-filters	New section, with options `esp`, `agent`, `reporting`, `router`
	licensing/ics_sms_channel	New option
	settings/no-userdata-changed-response-to-urs	New option
	settings/notify-workbin-userdata-changed	New option
	settings/number-of-database-connections	New options
Interaction Server Proxy	No changes	
Knowledge Manager	No changes	
SMS Server	Four sections, 16 options, all new	New component

Table 218: Configuration Option Changes from Multimedia 7.6.1 to 8.0.0 (Continued)

Component Name	Section/Option	Type of Change
Training Server	No changes	
UCS Manager	No changes	
Universal Contact Server (UCS)	settings/enable-reporting	Default changed from `TRUE` to `FALSE`
	settings/ucsapi-custom-socket	New option
	index	New section, with option `enabled`
	index.contact, index., interaction, index.srl.	New sections, each with options `description`, `enabled`, `index-rebuild`, `max-result`, and `storage-path`
UCS Proxy	No changes	
Web API Server	No changes	
Web Compound Samples	All removed	Component removed

Multimedia 8.0.0 to eServices 8.0.1

Table 219 lists changes to the options for specific components between Multimedia 8.0.0 and eServices 8.0.1.

Note: UCS 8.0.1 has a new set of capabilities called Context Management Services. These capabilities, available only when UCS operates in concert with the Intelligent Customer Front Door (iCFD) and Conversation Manager solutions, provide real-time service personalization and continuity. The `business-attributes` and `cview` options sections that are new in UCS 8.0.1 are relevant only to Context Management Services and have no bearing on UCS's functioning as a component of eServices. For more information on Context Management Services see the *Universal Contact Server 8.0 Context Management Services User's Guide.*

For complete descriptions of all eServices options, see the *eServices (Multimedia) 8.0 Reference Manual.* There were no retired options in release 8.0.1.

Table 219: Configuration Option Changes from Multimedia 8.0.0 to eServices 8.0.1

Component Name	Section/Option	Type of Change
Chat Server	settings/transcript-save-notices	New option
	esp-settings/esp-server-port	Removed; this configuration is now done under port settings
Classification Server	No changes	
Co-Browsing Server	No changes	
E-Mail Server	No changes	
Interaction Server	settings/agent-session-restore-timeout	New option
	settings/allow-multiple-agent-connections	New option
	settings/completed-queues	New option
	settings/max-output-timeout	New option
	settings/schema-name	New option
	settings/not-ready-on-invitation-timeout	Added valid values
	settings/no-userdata-changed-response-to-urs	Default value changed to `false`
Interaction Server DAP for Event Logger	event-filtering/event-filter-by-id	New option
	logger-settings/schema-name	New option
	agent-custom-data	New section
	custom-custom-data	New section
	custom-events	New section

Table 219: Configuration Option Changes from Multimedia 8.0.0 to eServices 8.0.1 (Continued)

Component Name	Section/Option	Type of Change
Interaction Server DAP for message queue	event-filtering/event-filter-by-id	New option
	logger-settings/delivery-protocol	New option
	logger-settings/delivery-queue-manager-name	New option
	logger-settings/delivery-queue-name	New option
	logger-settings/udata	New option
Interaction Server Proxy	No changes	
Knowledge Manager	security/disable-rbac	New section and option
SMS Server	smsc-<name>	Section renamed channel-<name>
	channel-<name>/inbound-route-<name>	Modified
	channel-<name>/inbound-route-default	Modified
	channel-<name>/outbound-numbers	Modified
	channel-<name>/driver-name	New option
	channel-<name>/inbound-media	New option
	channel-<name>/outbound-media	New option
	channel-<name>/x-jsms-config-file	New option
	channel-<name>/x-jsms-transport	New option
	channel-<name>/x-smpp-address-range	New option
	channel-<name>/x-smpp-system-type	New option
	settings/session-max-number	New option
	settings/sms-subject-size	New option
	settings\default-delivery-time	Removed
	settings\default-delivery-type	Removed
	settings\default-source-number	Removed

Table 219: Configuration Option Changes from Multimedia 8.0.0 to eServices 8.0.1 (Continued)

Component Name	Section/Option	Type of Change
Training Server	No changes	
UCS Manager	No changes	
Universal Contact Server (UCS)	business-attributes	New section (not relevant to eServices 8.0.1)
	cview	New section (not relevant to eServices 8.0.1)
UCS Proxy	No changes	
Web API Server	No changes	

eServices 8.0.1 to eServices 8.0.20

Table 220 lists changes to the options for specific components between eServices 8.0.1 and eServices 8.0.20.

For complete descriptions of all eServices options, see the *eServices (Multimedia) 8.0 Reference Manual.* There were no retired options in release 8.0.20.

Table 220: Configuration Option Changes from eServices 8.0.1 to 8.0.20

Component Name	Section/Option	Type of Change
Capture Point	Five sections, 44 options, all new	New component
Chat Server	No changes	
Classification Server	No changes	
Co-Browsing Server	No changes	
E-Mail Server	No changes	

Table 220: Configuration Option Changes from eServices 8.0.1 to 8.0.20 (Continued)

Component Name	Section/Option	Type of Change
Interaction Server	java-config/jvm-path	New section and option
	jvm-options	New section
	settings/honor-segmentation-generations	New option
Interaction Server DAP for Event Logger	No changes	
Interaction Server DAP for message queue	No changes	
Interaction Server Proxy	No changes	
Knowledge Manager	No changes	
Social Messaging Server	Six sections, 41 options, all new[a]	New component
SMS Server	No changes	
Training Server	No changes	
UCS Manager	No changes	
Universal Contact Server (UCS)	No changes	
UCS Proxy	No changes	
Web API Server	No changes	

a. Some of these sections and options are added by the installation packages for the Genesys Driver for Use with Facebook and the Genesys Driver for Use with Twitter.

eServices 8.0.20 to eServices 8.0.21

Table 221 lists changes to the options for specific components between eServices 8.0.20 and eServices 8.0.21.

For complete descriptions of all eServices options, see the *eServices 8.0 Reference Manual.* There were no retired options in release 8.0.21.

Table 221: Configuration Option Changes from eServices 8.0.20 to 8.0.21

Component Name	Section/Option	Type of Change
Capture Point	inbound-transformer-parameters/SchemaDocumentPath	New option
	settings/canceled-directory	New option
	settings/completed-directory	New option
	settings/error-directory	New option
	settings/error-held-directory	New option
	settings/inbound-directory	New option
	settings/inbound-scan-interval	New option
	settings/include-ids-in-duplicate-error	New option
	settings/iwd-compatibility-mode	New option
	settings/move-non-xml-from-inbound	New option
	settings/notification-directory	New option
	settings/notification-naming-mode	New option
	settings/number-outbound-threads	New option
	settings/outbound-queue-size	New option
	settings/processed-directory	New option
	settings/rejected-directory	New option
Chat Server	settings/server-reply-timeout	New option
	settings/transcript-resend-delay	New option
Classification Server	No changes	
Co-Browsing Server	No changes	
E-Mail Server	No changes	
Interaction Server	No changes	

Table 221: Configuration Option Changes from eServices 8.0.20 to 8.0.21 (Continued)

Component Name	Section/Option	Type of Change
Interaction Server DAP for Event Logger	logger-settings/jms-connection-factory-lookupname	New option
	logger-settings/jms-initial-context-factory	New option
	logger-settings/jms-provider-url	New option
	logger-settings/password	New option
	logger-settings/reconnect-timeout	New option
	logger-settings/recoverable	New option
	logger-settings/username	New option
Interaction Server DAP for message queue	No changes	
Interaction Server Proxy	No changes	
Knowledge Manager	No changes	
Social Messaging Server	No changes	
SMS Server	channel-<name>/reconnection-timeout	
	channel-<name>/x-smpp-service-type	
Training Server	No changes	
UCS Manager	No changes	
Universal Contact Server (UCS)	No changes	
UCS Proxy	No changes	
Web API Server	No changes	

eServices 8.0.21 to eServices 8.1.0

Table 222 lists changes to the options for specific components between eServices 8.0.21 and eServices 8.1.0.

For complete descriptions of all eServices options, see the *eServices 8.1 Reference Manual*.

Table 222: Configuration Option Changes from eServices 8.0.21 to 8.1.0

Component Name	Section/Option	Type of Change
Database Capture Point	Five sections, 50 options, all new	New template and Application object
Chat Server	log-filter/default-filter-type	New section and option
	log-filter/string-max-print-size	New section and option
	log-filter-data/<any name>	New section and option
	settings/session-restoration-mode	New option
	settings/transcript-resend-attempts	New option
	settings/transcript-save-on-error	New option
	settings/web-api-port	Removed; configure on `Ports` tab with ID=`webapi`
Classification Server	log-filter/default-filter-type	New section and option
	log-filter-data/<any name>	New section and option
	log/messagefile	Default value changed from iknowserver.lms to class-server.lms
Co-Browsing Server	No changes	

Table 222: Configuration Option Changes from eServices 8.0.21 to 8.1.0 (Continued)

Component Name	Section/Option	Type of Change
E-Mail Server	log-filter/default-filter-type	New section and option
	log-filter/email-address-filter-type	New section and option
	log-filter-data/<any name>	New section and option
	e-mail-processing/enable-firstname-lastname-auto-filling	New option
	e-mail-processing/enable-stop-initial-emailin-after-extreply	New option
	iwe-processing/worker-threads	Removed
	iwe-processing/enable-web-form	Removed
	settings/web-api-port	Removed
Interaction Server	No changes	
Interaction Server DAP for Event Logger	No changes	
Interaction Server DAP for message queue	No changes	
Knowledge Manager	No changes	

Table 222: Configuration Option Changes from eServices 8.0.21 to 8.1.0 (Continued)

Component Name	Section/Option	Type of Change
SMS Server	log-filter/default-filter-type	New section and option
	log-filter-data/<any name>	New section and option
	channel-<any name>/driver-classname	New option
	channel-<any name>/inbound-route	New option
	channel-<any name>/password	New option
	channel-<any name>/reconnection-timeout	New option
	channel-<any name>/session-by-address	New option
	channel-<any name>/session-by-text	New option
	channel-<any name>/x-jsms-config-file	New option
	channel-<any name>/x-smpp-address-range	New option
	channel-<any name>/x-smpp-charset-reduced	New option
	channel-<any name>/x-smpp-comms-timeout	New option
	channel-<any name>/x-smpp-enquire-link-timeout	New option
	channel-<any name>/x-smpp-host	New option
	channel-<any name>/x-smpp-port	New option
	channel-<any name>/x-smpp-receive-timeout	New option
	channel-<any name>/x-smpp-service-type	New option
	channel-<any name>/x-smpp-system-id	New option
	channel-<any name>/x-smpp-system-type	New option
	settings/subject-size	New option
	channel-<name> section, all options	Removed
	settings/session-request-keyword	Removed
	settings/sms-subject-size	Removed

Table 222: Configuration Option Changes from eServices 8.0.21 to 8.1.0 (Continued)

Component Name	Section/Option	Type of Change
Social Messaging Server	log-filter/default-filter-type	New section and option
	log-filter-data/<any name>	New section and option
	settings/session-max-number	New option
	settings/session-shutdown-timeout	New option
	settings/subject-size	New option
Training Server	No changes	
UCS Manager	No changes	
Universal Contact Server (UCS)	log-filter/default-filter-type	New section and option
	log-filter-data/<any name>	New section and option
	log/log-background-activity	New option
	log/log-body	New option
	authentication/enabled	New section and option
	authentication/mode	New section and option
	authentication/password	New section and option
	authentication/use-role	New section and option
	authentication/username	New section and option
	business-attributes/map-names	New option
	cview/metadata-cache	New option
	esp.tls.key/password	New option
	esp.tls.keystore/password	New option

Table 222: Configuration Option Changes from eServices 8.0.21 to 8.1.0 (Continued)

Component Name	Section/Option	Type of Change
Universal Contact Server (UCS) (continued)	esp.tls.keystore/path	New option
	esp.tls.keystore/type	New option
	http.tls.key/password	New option
	http.tls.keystore/password	New option
	http.tls.keystore/path	New option
	http.tls.keystore/type	New option
	scheduled-job-xx/action	New option
	scheduled-job-xx/cron-expression	New option
	scheduled-job-xx/enabled	New option
	scheduled-job-xx/period	New option
	scheduled-job-xx/period-type	New option
	index.contact/registered-persistent, index.interaction/registered-persistent, and index.srl/registered-persistent	Removed
	cview/port	Removed
	cview/port-http	Removed
	cview/port-https	Removed
UCS Proxy	No changes	
Web API Server	No changes	

eServices 8.1.0 to eServices 8.1.1

Table 223 lists changes to the options for specific components between eServices 8.1.0 and eServices 8.1.1.

For complete descriptions of all eServices options, see the *eServices 8.1 Reference Manual*.

Table 223: Configuration Option Changes from eServices 8.1.0 to 8.1.1

Component Name	Section/Option	Type of Change
Chat Server	No changes	
Classification Server	No changes	
Co-Browsing Server	No changes	
Database Capture Point	No changes	
E-Mail Server	No changes	
eServices Social Messaging Plugin for Genesys Agent Desktop	No changes	
eServices Social Messaging Plugins for Interaction Workspace	interaction-workspace/<socialmedia>.outbound-queue	New option
	interaction-workspace/<socialmedia>.default-queue	New option
	interaction-workspace/<socialmedia>.url-regex	New option
	interaction-workspace/<socialmedia>.response-wait-time	New option
	interaction-workspace/<socialmedia>.toast-information-key	New option
	interaction-workspace/twitter.hashtag-regex	New option
	interaction-workspace/twitter.max-chars	New option
	interaction-workspace/twitter.mention-regex	New option
	interaction-workspace/twitter.shortened-url-char-length	New option
File Capture Point	No changes	New option
Interaction Server	This is a restricted release. For descriptions of new options, see the Interaction Server 8.1.1.x Release Note.	
Interaction Server Proxy	No changes	
JMS Capture Point	No changes	

Table 223: Configuration Option Changes from eServices 8.1.0 to 8.1.1 (Continued)

Component Name	Section/Option	Type of Change
Knowledge Manager	No changes	
SMS Server	No changes	
Social Messaging Server	channel-<any name>/x-registered-app-name	Removed
	channel-<any name>/x-user-id	Removed
	channel-<any name>/x-submit-own-all	New option
	channel-<any name>-monitor/itx-submit-timeout	New option
	channel-<any name>-monitor/itx-resubmit-delay	New option
	channel-<any name>-monitor/itx-resubmit-attempts	New option
	settings/media-accounts-monitoring	New option
Training Server	No changes	
Universal Contact Server (UCS)	No changes	
UCS Proxy	No changes	
Web API Server	No changes	

eServices 8.1.1 to eServices 8.1.2

Table 225 lists changes to the options for specific components between eServices 8.1.1 and eServices 8.1.2.

For complete descriptions of all eServices options, see the *eServices 8.1 Reference Manual*.

Table 224: Configuration Option Changes from eServices 8.1.1 to 8.1.2

Component Name	Section/Option	Type of Change
Chat Server	No changes	
Classification Server	No changes	
Co-Browsing Server	No changes	

Table 224: Configuration Option Changes from eServices 8.1.1 to 8.1.2 (Continued)

Component Name	Section/Option	Type of Change
Database Capture Point	settings/data-source-name	No longer mandatory. Either 'data-source-name' or 'connection-string' must be specified
	settings/inbound-scan-interval	• Interval units changed from seconds to milliseconds • Default value changed from 10 to 10000 • Valid values changed from 5–120 to 1–120000
	settings/updates-scan-interval	• Interval units changed from seconds to milliseconds • Default value changed from 10 to 10000 • Valid values changed from 5–120 to 1–120000
	settings/connection-string	New option

Table 224: Configuration Option Changes from eServices 8.1.1 to 8.1.2 (Continued)

Component Name	Section/Option	Type of Change
E-Mail Server	settings	Removed
	pop-client/enable-starttls	Removed
	smtp-client/enable-starttls	Removed
	pop-client/require-starttl	Removed
	smtp-client/require-starttl	Removed
	pop-client/enable-ssl	Removed
	smtp-client/enable-ssl	Removed
	pop-client/pop-connection-security	New option
	smtp-client/smtp-connection-security	New option
eServices Social Messaging Plugin for Genesys Agent Desktop	multimedia/twitter-check-user-relation-realtime	New option
eServices Social Messaging Plugins for Interaction Workspace	interaction-workspace/facebook.comments-pagination-size	New option
File Capture Point	No changes	
Interaction Server	settings/delivering-timeout	Valid values changed from 10–300 (5 minutes) to 10–86400 (24 hours)
	settings/handling-timeout	Valid values changed from 20–1440 (24 hours) to 1–1440 (24 hours)
	settings/enable-revoke-from-agent	New option
	settings/hide-strategy-change-activity	New option
	settings/hide-strategy-esp-activity	New option

Table 224: Configuration Option Changes from eServices 8.1.1 to 8.1.2 (Continued)

Component Name	Section/Option	Type of Change
Interaction Server Proxy	No changes	
JMS Capture Point	jms-additional-context-attributes	New section
	settings/copy-original-properties-in-reply	New option
	settings/use-correlation-id-in-reply	New option
	settings/use-jms-reply-to	New option
Knowledge Manager	No changes	
SMS Server	No changes	
Social Messaging Server	channel-<any name>/driver-classname	New option
	channel-<any name>/inbound-route	New option
	channel-<any name>/reconnection-timeout	New option
	channel-<any name>/x-debug-mode	New option
	channel-<any name>/x-history-length	New option
	channel-<any name>/x-inbound-media	Default value changed to 'twitter'
	channel-<any name>/x-itx-resubmit-attempts	New option
	channel-<any name>/x-itx-resubmit-delay	New option
	channel-<any name>/x-itx-submit-timeout	New option
	channel-<any name>/x-posts-buffer-size	New option
	channel-<any name>/x-posts-chunk-size	New option
	channel-<any name>/x-posts-time-period	New option
	channel-<any name>/x-print-rss-channel	New option
	channel-<any name>/x-print-rss-items	New option
	channel-<any name>/x-thread-pool-size	Removed

Table 224: Configuration Option Changes from eServices 8.1.1 to 8.1.2 (Continued)

Component Name	Section/Option	Type of Change
Social Messaging Server (continued)	channel-<any name>/x-reduced-fetching	New option
	channel-<any name>/x-sampling-period	New option
	channel-<any name>/x-submit-own-all	New option
	channel-<any name>-monitor/refresh-period-channel-account	New option
	channel-<any name>-monitor/refresh-period-followers	New option
	channel-<any name>-monitor/refresh-period-friends	New option
	channel-<any name>-monitor/str-follow-<any name>	New option
	channel-<any name>-monitor/str-track-<any name>	New option
	channel-<any name>-monitor-<any name>/history-length	New option
	channel-<any name>-monitor-<any name>/print-rss-channel	New option
	channel-<any name>-monitor-<any name>/print-rss-items	New option
	channel-<any name>-monitor-<any name>/rss-url	New option
	channel-<any name>-monitor-<any name>/sampling-period	New option
	channel-<any name>-monitor-<any name>/posts-buffer-size	New option
	channel-<any name>-monitor-<any name>/posts-chunk-size	New option
	channel-<any name>-monitor-<any name>/posts-time-period	New option
	settings/media-accounts-monitoring	New option
Training Server	No changes	
Universal Contact Server (UCS)	No changes	
UCS Proxy	No changes	
Web API Server	No changes	
Web Service Capture Point	Three sections, 21 options, all new	New template and Application object

eServices 8.1.2 to eServices 8.1.201

Table 225 lists changes to the options for specific components between eServices 8.1.2 and eServices 8.1.201.

For complete descriptions of all eServices options, see the *eServices 8.1 Reference Manual*.

Table 225: Configuration Option Changes from eServices 8.1.2 to 8.1.201

Component Name	Section/Option	Type of Change
Chat Server	No changes	
Classification Server	No changes	
Co-Browsing Server	No changes	
Database Capture Point	No changes	
E-Mail Server	No changes	
eServices Social Messaging Plugin for Genesys Agent Desktop	No changes	
eServices Social Messaging Plugins for Interaction Workspace	interaction-workspace/<media-type>.auto-answer	New option
	interaction-workspace/<media-type>.prompt-for-done	New option
	interaction-workspace/<media-type>.subject-max-chars	New option
	interaction-workspace/display-format.interaction-<media-type>-name	New option
	interaction-workspace/facebooksession.agent.text-color	New option
	interaction-workspace/facebooksession.agent.prompt-color	New option
	interaction-workspace/facebooksession.client.prompt-color	New option

Table 225: Configuration Option Changes from eServices 8.1.2 to 8.1.201 (Continued)

Component Name	Section/Option	Type of Change
eServices Social Messaging Plugins for Interaction Workspace (continued)	interaction-workspace/facebooksession.client.text-color	New option
	interaction-workspace/facebooksession.other-agent.prompt-color	New option
	interaction-workspace/facebooksession.other-agent.text-color	New option
	interaction-workspace/facebooksession.system.text-color	New option
	interaction-workspace/facebooksession.time-stamp	New option
	interaction-workspace/facebooksession.transcript-time-frame	New option
	interaction-workspace/intercommunication.<media-type>.queue	New option
	interaction-workspace/intercommunication.<media-type>.routing-base-actions	New option
	interaction-workspace/intercommunication.<media-type>.routing-based-targets	New option
	interaction-workspace/keyboard.shortcut.interaction.facebooksession.transfer	New option
	interaction-workspace/twitter.image-attachment-max-size	New option
	interaction-workspace/twitter.image-attachment-char-length	New option
File Capture Point	No changes	
Interaction Server	No changes	
Interaction Server Proxy	No changes	

Table 225: Configuration Option Changes from eServices 8.1.2 to 8.1.201 (Continued)

Component Name	Section/Option	Type of Change
JMS Capture Point	No changes	
Knowledge Manager	No changes	
SMS Server	No changes	
Social Messaging Server	settings/session-max-number	New option
	settings/session-shutdown-timeout	New option
Social Messaging Server (Facebook Driver)	channel-<any name>/inbound-route	Valid values now include <tenant id> : <access point name1>, <tenant id> : <access point name2>
	channel-<any name>/x-access-token	Changes to the option take effect immediately, instead of after restart
	channel-<any name>/x-first-sampling-period	Option only processed when the monitor-type is generic, event, or search
	channel-<any name>/x-inbound-media	New option
	channel-<any name>/x-inbound-media-chat	New option
	channel-<any name>/x-itx-resubmit-attempts	• Renamed from x-itx-resubmit-ntimes • Default value changed from 10 to 3 • Valid values changed from 0-2147483647 to 0-9 • Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart

Table 225: Configuration Option Changes from eServices 8.1.2 to 8.1.201 (Continued)

Component Name	Section/Option	Type of Change
Social Messaging Server (Facebook Driver) (continued)	channel-<any name>/x-itx-resubmit-delay	• Default value changed from 3 to 30 • Value values changed from 0-maximum unsigned integer to 1-120 • Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart
	channel-<any name>/x-itx-submit-timeout	New option
	channel-<any name>/x-max-comments-per-fql-request	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Option only processed when the monitor-type is generic, event, or search
	channel-<any name>/x-max-messages-per-fql-request	New option
	channel-<any name>/x-max-posts-per-fql-request	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Option only processed when the monitor-type is generic, event, or search
	channel-<any name>/x-messages-time-period	New option
	channel-<any name>/x-posts-buffer-size	Option only processed when the monitor-type is generic or event

Table 225: Configuration Option Changes from eServices 8.1.2 to 8.1.201 (Continued)

Component Name	Section/Option	Type of Change
Social Messaging Server (Facebook Driver) (continued)	channel-<any name>/x-posts-chunk-size	Option only processed when the monitor-type is generic or event
	channel-<any name>/x-posts-time-period	Option only processed when the monitor-type is generic or event
	channel-<any name>/x-publish-access-token	New option
	channel-<any name>/x-sampling-period	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Option only processed when the monitor-type is generic, event, or search • Default value changed from 180 to 240
	channel-<any name>/x-sampling-time-buffer	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Option only processed when the monitor-type is generic, event, or search • Default value changed from 180 to 120 • Valid values changed from 0—172800000 to 1—3600
	channel-<any name>/x-submit-comments-itx	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart

Table 225: Configuration Option Changes from eServices 8.1.2 to 8.1.201 (Continued)

Component Name	Section/Option	Type of Change
Social Messaging Server (Facebook Driver) (continued)	channel-<any name>/x-submit-internal-itx	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Option only processed when the monitor-type is generic, event, or search
	channel-<any name>-monitor-<any name>/access-token	Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart
	channel-<any name>-monitor-<any name>/first-sampling-period	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Option only processed when the monitor-type is generic, event, or search • Valid values changed from 1-172800000 to 1-31536000
	channel-<any name>-monitor-<any name>/id	Updated description with information about the new private-messaging monitor-type.
	channel-<any name>-monitor-<any name>/inbound-media	New option
	channel-<any name>-monitor-<any name>/inbound-media-chat	New option

Table 225: Configuration Option Changes from eServices 8.1.2 to 8.1.201 (Continued)

Component Name	Section/Option	Type of Change
Social Messaging Server (Facebook Driver) (continued)	channel-<any name>-monitor-<any name>/max-comments-per-fql-request	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Option only processed when the monitor-type is generic, event, or search
	channel-<any name>-monitor-<any name>/max-messages-per-fql-request	New option
	channel-<any name>-monitor-<any name>/max-posts-per-fql-request	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Option only processed when the monitor-type is generic, event, or search
	channel-<any name>-monitor-<any name>/messages-time-period	New option
	channel-<any name>-monitor-<any name>/monitor-type	• Default value changed from “generic” to “No default value” • Valid values now include private-messaging
	channel-<any name>-monitor-<any name>/posts-buffer-size	Option only processed when the monitor-type is generic or event
	channel-<any name>-monitor-<any name>/posts-chunk-size	Option only processed when the monitor-type is generic or event
	channel-<any name>-monitor-<any name>/posts-time-period	Option only processed when the monitor-type is generic or event

Table 225: Configuration Option Changes from eServices 8.1.2 to 8.1.201 (Continued)

Component Name	Section/Option	Type of Change
Social Messaging Server (Facebook Driver) (continued)	channel-<any name>-monitor-<any name>/publish-access-token	New option
	channel-<any name>-monitor-<any name>/query	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Option only processed when the monitor-type is search
	channel-<any name>-monitor-<any name>/sampling-period	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Valid values changed from 1-172800000 to 1-31536000
	channel-<any name>-monitor-<any name>/sampling-time-buffer	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Valid values changed from 0-172800000 to 1-3600. • Option only processed when the monitor-type is generic, event, or search
	channel-<any name>-monitor-<any name>/submit-comments-itx	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Option only processed when the monitor-type is generic, event, or search

Table 225: Configuration Option Changes from eServices 8.1.2 to 8.1.201 (Continued)

Component Name	Section/Option	Type of Change
Social Messaging Server (Facebook Driver) (continued)	channel-<any name>-monitor-<any name>/submit-internal-itx	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Option only processed when the monitor-type is generic, event, or search
Social Messaging Server (RSS Driver)	channel-<any name>/x-history-length	• Valid values changed from 1000-2147483647 to 100-100000. • Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart
	channel-<any name>/x-inbound-media	Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart
	channel-<any name>/x-itx-resubmit-attempts	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Valid values changed from 0—2147483647 to 0—9

Table 225: Configuration Option Changes from eServices 8.1.2 to 8.1.201 (Continued)

Component Name	Section/Option	Type of Change
Social Messaging Server (RSS Driver) (continued)	channel-<any name>/x-itx-resubmit-delay	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Valid values changed from 0—2147483647 to 1—120
	channel-<any name>/x-itx-submit-timeout	• Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart • Valid values changed from 10—2147483647 to 1—60
	channel-<any name>/x-print-rss-channel	Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart
	channel-<any name>/x-print-rss-items	Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart
	channel-<any name>/x-sampling-period	Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart

Table 225: Configuration Option Changes from eServices 8.1.2 to 8.1.201 (Continued)

Component Name	Section/Option	Type of Change
Social Messaging Server (RSS Driver) (continued)	channel-<any name>-monitor-<any name>/history-length	• Valid values changed from 1000-2147483647 to 100-100000 • Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart
	channel-<any name>-monitor-<any name>/print-rss-channel	Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart
	channel-<any name>-monitor-<any name>/print-rss-items	Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart
	channel-<any name>-monitor-<any name>/rss-url	Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart
	channel-<any name>-monitor-<any name>/sampling-period	Changes to the option take effect after the time interval specified in the sampling-period or x-sampling-period options, instead of after restart
Social Messaging Server (Twitter Driver)	channel-<any name>/x-debug-mode	Changes to the option take effect immediately, instead of after restart
	channel-<any name>/x-inbound-media	Changes to the option take effect immediately, instead of after restart
	channel-<any name>/x-reduced-fetching	Removed
	channel-<any name>/x-source-nick-name	New option

Table 225: Configuration Option Changes from eServices 8.1.2 to 8.1.201 (Continued)

Component Name	Section/Option	Type of Change
Social Messaging Server (Twitter Driver) (continued)	channel-<any name>/x-submit-own-all	Changes to the option take effect immediately, instead of after restart
	channel-<any name>/control-str-public	New option
	channel-<any name>/control-str-user	New option
	channel-<any name>-monitor-<any name>/get-direct-messages	Changes to the option take effect immediately, instead of after restart
	channel-<any name>-monitor-<any name>/get-home-timeline	Changes to the option take effect immediately, instead of after restart
	channel-<any name>-monitor-<any name>/get-mentions	Changes to the option take effect immediately, instead of after restart
	channel-<any name>-monitor-<any name>/itx-submit-timeout	Changes to the option take effect immediately, instead of after restart
	channel-<any name>-monitor-<any name>/itx-resubmit-attempts	Changes to the option take effect immediately, instead of after restart
	channel-<any name>-monitor-<any name>/itx-resubmit-delay	Changes to the option take effect immediately, instead of after restart
	channel-<any name>-monitor-<any name>/qry-<name>	Removed
	channel-<any name>-monitor-<any name>/refresh-period-channel-account	Changes to the option take effect immediately, instead of after restart
	channel-<any name>-monitor-<any name>/refresh-period-followers	Changes to the option take effect immediately, instead of after restart
	channel-<any name>-monitor-<any name>/refresh-period-friends	Changes to the option take effect immediately, instead of after restart

Table 225: Configuration Option Changes from eServices 8.1.2 to 8.1.201 (Continued)

Component Name	Section/Option	Type of Change
Social Messaging Server (Twitter Driver) (continued)	channel-<any name>-monitor-<any name>/sampling-period	Changes to the option take effect immediately, instead of after restart
	channel-<any name>-monitor-<any name>/str-follow-<any name>	Changes to the option take effect immediately, instead of after restart
	channel-<any name>-monitor-<any name>/str-track-<any name>	Changes to the option take effect immediately, instead of after restart
Training Server	No changes	
Universal Contact Server (UCS)	No changes	
UCS Proxy	No changes	
Web API Server	No changes	
Web Service Capture Point	No changes	

eServices 8.1.201 to eServices 8.1.3

Table 226 lists changes to the options for specific components between eServices 8.1.201 and eServices 8.1.3.

Note: Starting with this section, the table lists only components whose options have changed. If a component is not listed, there are no changes to its options.

For complete descriptions of all eServices options, see the *eServices 8.1 Reference Manual*.

Table 226: Configuration Option Changes from eServices 8.1.201 to 8.1.3

Component Name	Section/Option	Type of Change
E-Mail Server	email-processing/inbound-submitter-thread-pool-size	Removed
	email-processing/outbound-submitter-thread-pool-size	Removed

Table 226: Configuration Option Changes from eServices 8.1.201 to 8.1.3 (Continued)

Component Name	Section/Option	Type of Change
SMS Server	channel-<any name>/default-reply-address	New option
	channel-<any name>/x-debug-mode	New option
	channel-<any name>/x-smpp-bind-mode	New option
	channel-<any name>/x-smpp-charset-reduced	Removed
	channel-<any name>/x-smpp-cstring-ascii-only	New option
	channel-<any name>/x-smpp-delivery-report	New option
	channel-<any name>/x-smpp-dest-addr-npi	New option
	channel-<any name>/x-smpp-dest-addr-ton	New option
	channel-<any name>/x-smpp-inbound-enc-default	New option
	channel-<any name>/x-smpp-outbound-enc-default	New option
	channel-<any name>/x-smpp-src-addr-npi	New option
	channel-<any name>/x-smpp-src-addr-ton	New option
	channel-<any name>/x-smpp-ucs2-enc-schema	New option

eServices 8.1.3 to eServices 8.1.4

Table 227 lists changes to the options for specific components between eServices 8.1.201 and eServices 8.1.3. The table lists only components whose options have changed.

For complete descriptions of all eServices options, see the *eServices 8.1 Reference Manual*.

Table 227: Configuration Option Changes from eServices 8.1.3 to 8.1.4

Component Name	Section/Option	Type of Change
E-mail Server	pop-client/exchange-version	New option
	pop-client/failed-items-folder-name	New option
	pop-client/folder-path	New option
	pop-client/folder-separator	New option
	pop-client/move-failed-ews-item	New option
	pop-client/type	Added possible value
	smtp-client/exchange-version	New option
	smtp-client/server-type	New option
	settings/ucs-reconnect-timeout	New option
Interaction Server	settings/allow-multiple-agent-connections	Added possible value
	settings/delayed-logout-panic-threshold	New option
	settings/delayed-logout-timeout	New option
	settings/enable-place-in-queue-reason	New option
	settings/incremental-login-request-timeout	New option
Interaction Workspace Plug-in for Facebook	interaction-workspace/facebook.hashtag-regex	New option
	interaction-workspace/facebook.image-attachment-max-size	New option
	interaction-workspace/facebook.use-esp-broadcast	New option
Interaction Workspace Plug-in for Twitter	interaction-workspace/twitter.use-esp-broadcast	New option

Table 227: Configuration Option Changes from eServices 8.1.3 to 8.1.4 (Continued)

Component Name	Section/Option	Type of Change
Social Messaging Server	channel-<any name>-monitor-<any name>/inbound-media	Cannot be configured on the Channel level for private messaging monitors; see *eServices 8.1 Reference Manual*
	settings/esp-proc-timeout	New option
	settings/session-chat-request-timeout	New option
	settings/session-max-number	Changed possible values
	settings/session-shutdown-timeout	Changed possible values
Social Messaging Server (Facebook Driver)	channel-<any name>/x-max-listed-posts-per-request	New option
	channel-<any name>/x-max-objects-per-request	New option
	channel-<any name>/x-posts-buffer-size	New option
	channel-<any name>/x-history-time-period	New option
	channel-<any name>/x-history-writing-frequency	New option
	channel-<any name>/x-inbound-media	New option
	channel-<any name>/x-max-comments-per-post-to-process	New option
	channel-<any name>-monitor-<any name>/max-objects-per-request	New option
	channel-<any name>-monitor-<any name>/max-listed-posts-per-request	New option
	channel-<any name>-monitor-<any name>/posts-buffer-size	New option
	channel-<any name>-monitor-<any name>/history-time-period	New option

Table 227: Configuration Option Changes from eServices 8.1.3 to 8.1.4 (Continued)

Component Name	Section/Option	Type of Change
	channel-<any name>-monitor-<any name>/history-writing-frequency	New option
	channel-<any name>-monitor-<any name>/max-comments-per-post-to-process	New option
	channel-<any name>/x-first-sampling-period	Removed
	channel-<any name>/x-inbound-media-chat	Removed
	channel-<any name>/x-max-comments-per-fql-request	Removed
	channel-<any name>/x-max-messages-per-fql-request	Removed
	channel-<any name>/x-max-posts-per-fql-request	Removed
	channel-<any name>/x-messages-time-period	Removed
	channel-<any name>/x-posts-chunk-size	Removed
	channel-<any name>/x-posts-time-period	Removed
	channel-<any name>-monitor-<any name>/first-sampling-period	Removed
	channel-<any name>-monitor-<any name>/inbound-media-chat	Removed
	channel-<any name>-monitor-<any name>/itx-resubmit-delay	Removed
	channel-<any name>-monitor-<any name>/itx-resubmit-attempts	Removed
	channel-<any name>-monitor-<any name>/itx-submit-timeout	Removed
	channel-<any name>-monitor-<any name>/max-comments-per-fql-request	Removed
	channel-<any name>-monitor-<any name>/max-messages-per-fql-request	Removed
	channel-<any name>-monitor-<any name>/max-posts-per-fql-request	Removed
	channel-<any name>-monitor-<any name>/messages-time-period	Removed

Table 227: Configuration Option Changes from eServices 8.1.3 to 8.1.4 (Continued)

Component Name	Section/Option	Type of Change
	channel-<any name>-monitor-<any name>/monitor-type	Removed possible value
	channel-<any name>-monitor-<any name>/posts-chunk-size	Removed
	channel-<any name>-monitor-<any name>/posts-time-period	Removed
Social Messaging Server (Twitter Driver)	channel-<any name>-monitor/cleanup-relations	New option
	channel-<any name>-monitor/refresh-period-channel-account	Changed default and possible values
	channel-<any name>-monitor/refresh-period-followers	Changed default and possible values
	channel-<any name>-monitor/refresh-period-friends	Changed default and possible values
	channel-<any name>/ucs-in-use	New option
	channel-<any name>/ucs-request-timeout	New option
	channel-<any name>/x-ucs-relations-chunk	New option

eServices 8.1.4 to eServices 8.5.0

Table 227 lists changes to the options for specific components between eServices 8.1.4 and eServices 8.5.0. The table lists only components whose options have changed.

For complete descriptions of all eServices options, see the *eServices 8.5 Reference Manual*.

Table 228: Configuration Option Changes from eServices 8.1.4 to 8.5.0

Component Name	Section/Option	Type of Change
E-mail Server	pop-client/exchange-version	New option
	pop-client/failed-items-folder-name	New option
	pop-client/folder-path	New option
	pop-client/folder-separator	New option
	pop-client/move-failed-ews-item	New option
	smtp-client/exchange-version	New option
	smtp-client/server-type	New option
Interaction Server	settings/database-request-timeout	New option
	settings/database-request-warning-timeout	New option
Social Messaging Server	settings/media-accounts-monitoring	Removed
	settings/workspace-location	New option
Social Messaging Server (Facebook Driver)	channel-<any name>-monitor-<any name>/submit-as-chat	New option
Social Messaging Server (Twitter)	channel-<any name>-monitor-<any name>/str-language-<any name>	New option
Universal Contact Server (UCS)	index/shared	New option
	settings/screening-rules-sync-delay	New option
	settings/standard-responses-sync-delay	New option
	settings/synchronize-screening-rules	New option
	settings/synchronize-standard-responses	New option
	settings/third-party-pool-size	Default value changed from 10 to 50

Chapter

62 Migration Procedures

This chapter includes the migration procedures for the following releases:

- MCR 7.0 to 7.1
- From MCR 7.1 to Multimedia 7.2
- From Multimedia release 7.2 to 7.5, 7.5 to 7.6.0, 7.6.0 to 7.6.1, 7.6.1 to 8.0.0
- From Multimedia release 8.0.0 to eServices 8.0.1
- From eServices release 8.0.1 to 8.0.20 and 8.0.20 to 8.0.21, 8.0.21 to 8.1.0, 8.1.0 to 8.1.1, 8.1.1. to 8.1.2, 8.1.2 to 8.1.201, 8.1.201 to 8.1.3, 8.1.3 to 8.1.4, and 8.1.4 to 8.5.0.

The procedures are detailed in these sections:

- Overview, page 1269
- Migration Procedures, page 1275

Overview

Complete these preliminary procedures before starting your migration.

MCR 7.0 to MCR 7.1

1. Installation of FlexLM, version 8.3
2. You should have the license files for 7.1 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide*
   - "Licensing Migration" chapter of this guide.

> **Note:** The only difference between MCR 7.0 and 7.1 regarding licensing is the addition of a license for Open Media: `ics_custom_media_channel`.

3. Migration of Framework to the versions required by MCR. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade of other prerequisite Genesys components.

MCR 7.1 to Multimedia 7.2

1. Install FLEXlm license manager. For the currently-supported version, check the *Genesys Licensing Guide.*
2. You should have the license files for 7.2 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.

> **Note:** There is no difference between MCR 7.1 and Multimedia 7.2 regarding licensing.

3. Migrate Framework to the versions required by Multimedia. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

Multimedia 7.2 to 7.5

1. Install FLEXlm license manager. For the currently-supported version, check the *Genesys Licensing Guide.*
2. You should have the license files for 7.5 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.

> **Note:** There is no difference between Multimedia 7.2 and 7.5 regarding licensing.

3. Migrate Framework to the versions required by Multimedia. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

Multimedia 7.5 to 7.6.0

1. Install FLEXlm license manager. For the currently-supported version, check the *Genesys Licensing Guide.*
2. You should have the license files for 7.6.0 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.

   Note: There is one difference between Multimedia 7.5 and 7.6.0 regarding licensing: In 7.6.0, the optional Content Analyzer - Japanese requires its own license file.
3. Migrate Framework to the versions required by Multimedia. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

Multimedia 7.6.0 to 7.6.1

1. Install FLEXlm license manager. For the currently-supported version, check the *Genesys Licensing Guide.*
2. You should have the license files for 7.6.1 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.

   Note: There is no difference between Multimedia 7.6.0 and 7.6.1 regarding licensing.
3. Migrate Framework to the versions required by Multimedia. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

Multimedia 7.6.1 to 8.0.0

1. Install FLEXlm license manager. For the currently-supported version, check the *Genesys Licensing Guide.*
2. You should have the license files for 8.0.0 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.

- "Licensing Migration" chapter of this guide.

Note: Multimedia 8.0.0 adds a license for SMS media: `ics_sms_channel`.

3. Migrate Framework to the versions required by Multimedia. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

Multimedia 8.0.0 to eServices 8.0.1

1. Install FLEXlm license manager. For the currently-supported version, check the *Genesys Licensing Guide.*
2. You should have the license files for 8.0.1 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.
3. Migrate Framework to the versions required by eServices. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

eServices 8.0.1 to 8.0.20

1. Install FLEXlm license manager. For the currently-supported version, check the *Genesys Licensing Guide.*
2. You should have the license files for 8.0.20 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.

Note: eServices 8.0.20 adds a technical license for the new capture points functionality of Interaction Server.

3. Migrate Framework to the versions required by eServices. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

eServices 8.0.20 to 8.0.21

1. Install FLEXlm license manager. For the currently-supported version, check the *Genesys Licensing Guide.*
2. You should have the license files for 8.0.21 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.
3. Migrate Framework to the versions required by eServices. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

eServices 8.0.21 to 8.1.0

1. Install FLEXlm license manager or any other license manager supported by Genesys. For the currently-supported version, check the *Genesys Licensing Guide.*
2. You should have the license files for 8.1.0 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.
3. Migrate Framework to the versions required by eServices. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

eServices 8.1.0 to 8.1.1

1. Install FLEXlm license manager or any other license manager supported by Genesys. For the currently-supported version, check the *Genesys Licensing Guide*.
2. You should have the license files for 8.1.1 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.
3. Migrate Framework to the versions required by eServices. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

eServices 8.1.1 to 8.1.2

1. Install FLEXlm license manager or any other license manager supported by Genesys. For the currently-supported version, check the *Genesys Licensing Guide*.
2. You should have the license files for 8.1.2 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.
3. Migrate Framework to the versions required by eServices. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

eServices 8.1.2 to 8.1.201

1. Install FLEXlm license manager or any other license manager supported by Genesys. For the currently-supported version, check the *Genesys Licensing Guide*.
2. You should have the license files for 8.1.201 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.
3. Migrate Framework to the versions required by eServices. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

eServices 8.1.201 to 8.1.3

1. Install FLEXlm license manager or any other license manager supported by Genesys. For the currently-supported version, check the *Genesys Licensing Guide*.
2. You should have the license files for 8.1.3 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.
3. Migrate Framework to the versions required by eServices. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

eServices 8.1.3 to 8.1.4

1. Install FLEXlm license manager or any other license manager supported by Genesys. For the currently-supported version, check the *Genesys Licensing Guide*.
2. You should have the license files for 8.1.4 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.
3. Migrate Framework to the versions required by eServices. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

eServices 8.1.4 to 8.5.0

1. Install FLEXlm license manager or any other license manager supported by Genesys. For the currently-supported version, check the *Genesys Licensing Guide*.
2. You should have the license files for 8.5.0 components.

   Licensing is addressed in these documents:
   - *Genesys Licensing Guide:* "Licensing Requirements" chapter.
   - "Licensing Migration" chapter of this guide.
3. Migrate Framework to the versions required by eServices. See "Compatibility Between Multimedia/MCR/eServices and Genesys Framework" on page 1182.
4. Upgrade other prerequisite Genesys components.

Migration Procedures

Follow these migration procedures for your solution. Except where noted, these procedures are the same for migrating from any major release to the next major release (that is, 7.0 to 7.1, 7.1 to 7.2, 7.2 to 7.5, 7.5 to 7.6, 7.6 to 8.0, 8.0 to 8.1, 8.1 to 8.5)

Contact Center Information

Update Contact Center configuration as needed, such as Place Groups and Agent Groups.

Solution and Components

There are two possible approaches:

- New Solution with new Applications: Create and install a new Solution containing new Applications. Then install new components to all Applications in the new Solution.
- New Solution with upgraded Applications: Create a new Solution, then upgrade some or all existing Applications for use in the new solution, then install new components to the new Applications.

The second procedure is described in this section, but Genesys recommends the first approach unless you have specific reasons to avoid it.

With either approach, you will upgrade your Universal Contact Server and Interaction Server databases. Because you will migrate the Universal Contact Server database, all objects that you created with your old Knowledge Manager (categories, screening rules, standard responses, classification models) will be available in the new solution.

It is also theoretically possible to mix new (for example, 7.2) and existing (for example, 7.1) components in the new Solution. See "Changes in Components and Configuration Options" on page 1215 for compatibility relations between components. If you want to follow this combined approach you must contact Genesys Technical Support for assistance.

New Solution with New Applications

This procedure is described in the *Deployment Guide* for each major release.

New Solution with Upgraded Applications

First prepare as follows:

1. Import the Solution template for the new solution and use it to create a Solution object for your new installation.
2. Install configuration wizards for the new solution.

For each Application, proceed as follows:

1. Export the configuration data to a file. Keep this file available.
2. Upgrade the Application objects, using one of these methods:
   - Use the Solution Upgrade Wizard. This takes you through the individual Upgrade Wizard (next item) for each Application in the solution.
   - Use individual component Upgrade Wizards. This takes your existing Application object, displays its settings, and gives you the opportunity to modify them.

Note: The Upgrade Wizard, with the exception of the 8.1.0 Wizard, adds any new options, but it does not change any of your existing settings, even if they are defaults whose values have changed in the new versions.

The 8.1.0 Wizard checks the existing configuration and

- If the configuration is 8.0.21, it neither adds new options nor changes existing settings.
- If the configuration is earlier than 8.0.21 it upgrades the configuration to 8.0.21.

- Configure the Application manually. You can import the new template for the Application and check to see which options were changed or added.

3. For each component, compare the existing options and values with the changes in the inventory of options and their values (default value and range of valid values) to see if you want to modify or add to your existing configuration.

Note: If objects and components have been customized, contact Genesys Professional Services for help.

4. For Multimedia 7.2, update connections of Interaction Server and Web API Server if necessary (see "Changes in Connections" on page 1216).
5. **Rollback Procedures:** If the upgrade of the component fails, revert to your existing Application object, as follows:
   - Restore the option values if necessary by importing the configuration data file that you created for this component in Step 1.
   - Remove any connections that you added in Step 4.

In addition to this general procedure, note the following information for specific components.

MCR 7.1

- Universal Contact Server (UCS)—New and changed options. You must also upgrade your UCS database, as described in the next section.
- Interaction Server—New options. You must also upgrade your Interaction Server database, as described in the next section.
- Web API Server—No changes.
- Web Compound Samples—Changed options.
- Chat Server—no changes.
- E-Mail Server Java—New and changed options.
- Classification Server—Changed options.

- Training Server—Changed option.
- Knowledge Manager—New option.

Multimedia 7.2

- Universal Contact Server (UCS)—New options. You must also upgrade your UCS database, as described in the next section.
- Interaction Server—New options. You must also upgrade your Interaction Server database, as described in the next section.
- Web API Server—New section and option.
- Web Compound Samples—Changed option.
- Chat Server—New sections and options.
- E-Mail Server Java—New section and options.
- Classification Server—New section and option.

Multimedia 7.5

- Universal Contact Server (UCS)—New options. You must also upgrade your UCS database, as described in the next section.
- Co-Browsing Server—New option and removed option.
- Interaction Server—New and changed options, and new section. You must also upgrade your Interaction Server database, as described in the next section.
- Web Compound Samples—Changed default value of option.
- Chat Server—New options.
- E-Mail Server Java—New section and options.
- Classification Server—New section and options.
- Training Server—Changed default value of option.
- Knowledge Manager—New option.

Multimedia 7.6.0

- Chat Server—New options.
- E-Mail Server Java—New options.
- Interaction Server—New options and section.
- Knowledge Manager—Changed default value for one option.
- Universal Contact Server (UCS)—New options. You must also upgrade your UCS database, as described in the next section.
- Web Compound Samples—Changed default value for one option.

Multimedia 7.6.1

- Interaction Server—New options and sections. You must also upgrade your Interaction Server database, as described in the next section. Changes in the Interaction Server database also entail changes in certain configuration objects, also described in the next section.
- Universal Contact Server (UCS)—Changed default value for two options. You must also upgrade your UCS database, as described in the next section.
- Web Compound Samples—Changed default value for one option.

Multimedia 8.0.0

- E-Mail Server Java—New section and options
- Interaction Server—New section and options
- SMS Server—New component
- Universal Contact Server—New section, new options, change in default value of one option
- Web Compound Samples—Component removed

eServices 8.0.1

- Chat Server—New and removed options
- Interaction Server—New and modified options
- Interaction Server DAP for Event Logger—New sections and options
- Knowledge Manager—New section and options
- SMS Server—Renamed section; new, modified, and removed options
- Java Environment and Libraries for eServices and UCS—Component renamed from Multimedia Third Party Components
- Co-Browsing Server—8.0.0x is the latest available version and is compatible with all 8.0.1 eServices components.

eServices 8.0.20

- Business Process for Use with Facebook—New component
- Business Process for Use with Twitter—New component
- Capture Point Application object—Required for integrated JMS Capture Point functionality
- Genesys Driver for Use with Facebook—New component
- Genesys Driver for Use with Twitter—New component
- Interaction Server—New section, new options
- Social Media Server—New component
- Social Messaging Plugin for Genesys Agent Desktop—New component

- Co-Browsing Server—8.0.0x is the latest available version and is compatible with all 8.0.20 eServices components.

For new or changed options, see “Changes to Configuration Options” on page 1221.

eServices 8.0.21

- Capture Point—XML File Capture Point
- Chat Server—New options
- Interaction Server DAP for Event Logger—New options
- SMS Server—New options

Note: Social Messaging Server 8.0.21 requires that all related social messaging components also be version 8.0.21. The components in question are:

- Business Process for use with Facebook
- Business Process for use with Twitter
- Genesys Driver for Use with Facebook
- Genesys Driver for Use with Twitter
- Social Messaging Plugin for Genesys Agent Desktop

eServices 8.1.0

- Database Capture Point—New template and Application object
- Chat Server—New sections and options
- Classification Server—New sections and options
- E-Mail Server—New sections and options
- Interaction Server—New sections and options
- SMS Server—New sections and options
- Social Messaging Server—New sections and options
- Universal Contact Server (UCS)—New sections and options

eServices 8.1.1

- Interaction Workspace Plugin for Facebook—New template and Application object
- Interaction Workspace Plugin for Twitter—New template and Application object
- Social Messaging Server—New options

eServices 8.1.2

- Business Process for use with RSS—New component

- Database Capture Point—New options and changed options
- E-Mail Server—New options
- Genesys Driver for Use with RSS—New component
- Interaction Server—New options and changed options
- JMS Capture Point—New section and new options
- Social Messaging Plugin for Genesys Agent Desktop—New option
- Social Messaging Plugins for Interaction Workspace—New option
- Social Messaging Server—New options, changed options, and removed options
- Web Service Capture Point—New template and Application object

eServices 8.1.201

- Social Messaging Server—New options, changed options, and removed options
- Facebook Driver—New options and changed options
- Twitter Driver—New options, changed options, and removed options
- RSS Driver—Changed options
- eServices Social Messaging Plugins for Interaction Workspace—New options

eServices 8.1.3

- E-mail Server—Removed options
- SMS Server—New options and one removed option

eServices 8.1.4

- E-Mail Server—New and changed options
- Interaction Server—New and changed options
- Genesys Driver for Use with Facebook—New, changed, and removed options
- Genesys Driver for Use with Twitter—New, changed, and removed options
- Interaction Workspace Plug-in for Facebook—New options
- Interaction Workspace Plug-in for Twitter—New option
- Social Messaging Server—New and changed options

eServices 8.5.0

- E-mail Server—New options
- Genesys Driver for Use with Facebook—New option
- Genesys Driver for Use with Twitter—New option

- Interaction Server—New options
- Social Media Plug-in for Workspace Desktop Edition replaces Interaction Workspace Plugins for Facebook, RSS, and Twitter
- Social Messaging Server—New and removed options
- Universal Contact Server (UCS)—New option

Databases

Most releases require you to upgrade the database schema for your Universal Contact Server (UCS) and Interaction Server databases. In each case a script is provided with the installation.

The general procedure is to run all scripts that cover your existing version, the current version, and all versions in between. For example, to upgrade a UCS database running on MS SQL from 7.6.1 to 8.0.2, you must run

1. `upgrade_mssql_7.6.1_to_8.0.0.sql`
2. `upgrade_mssql_8.0.0_to_8.0.1.sql`
3. `upgrade_mssql_8.0.1_to_8.0.2.sql`

The following sections go into detail for each pair of successive releases.

7.0 to 7.1

UCS Database

1. Make a backup copy of your UCS 7.0.x database.
2. Install UCS 7.1.
3. Go to the directory containing your UCS 7.1. Normally this is something like `C:\GCTI\Universal Contact Server\<application_object_name>`.
4. In the `sql_scripts` directory, open the directory named for your database management system.
5. The next steps differ depending on which database management system you are using.
   - For MSSQL or Oracle: Run the script `upgrade_<dbms_name>_7.0.1_to_7.1.0.sql`.
   - For DB2: Run the shell script `upgrade_db2_7.0.1_to_7.1.0.sh`. Note also the following about this shell script:
     - It requires the file `upgrade_db2_7.0.1_to_7.1.0.db2`, which is located in the same directory.
     - It must be run on a machine that has access to the UCS database.
     - You must ensure that your environment is properly configured for running the DB2 command line processor (the script launches the DB2 command line processor).

Warning!

- The upgrade script must run only once on the database. If you start the script, then attempt to start it again while the first instance is still in progress, the database may be damaged.
- For Oracle and DB2, the script includes a safety mechanism: the script stops and an error message displays.
- For MSSQL, there is no safety mechanism. The database will be damaged and you must make restore it from your backup copy, then run the upgrade script from the beginning.

For all supported DBMS, if the script has completed its run successfully and you later attempt to run it again, it stops and displays a message stating that you cannot run it a second time.

Interaction Server Database

1. Install Interaction Server 7.1.
2. Go to the directory containing your Interaction Server. Normally this is something like `C:\GCTI\Interaction Server\<application_object_name>`.
3. In the `Script` directory, open the directory named for your database management system (`Db2`, `MsSQL`, or `Oracle`).
4. Run the script `isdb_<dbms_name>_7.0-7.1.sql`.

7.1 to 7.2

UCS Database

1. Make a backup copy of your UCS 7.1 database.
2. Install UCS 7.2.
3. Go to the directory containing your UCS 7.2. Normally this is something like `C:\GCTI\Universal Contact Server\<application_object_name>`.
4. In the `sql_scripts` directory, open the directory named for your database management system.
5. Run the script `upgrade_<dbms_name>_7.1_to_7.2.sql`.

Warning!

- Genesys recommends that you run the upgrade script only once on the database. If you run the script a second time, the database will not be modified but some errors will display.
- If you attempt to start the script while an instance of it is still in progress, there is no effect on Oracle and MS-SQL databases.

- If you attempt to start the script while an instance of it is still in progress, DB2 databases can be damaged. If this happens, you must restore the database from your backup copy.

Interaction Server Database

1. Install Interaction Server 7.2.
2. Go to the directory containing your Interaction Server. Normally this is something like `C:\GCTI\Interaction Server\<application_object_name>`.
3. In the `Script` directory, open the directory named for your database management system (`Db2`, `MsSQL`, or `Oracle`).
4. Run the script `isdb_<dbms_name>_7.1-7.2.sql`.

7.2 to 7.5

UCS Database

1. Make a backup copy of your UCS 7.2 database.
2. Install UCS 7.5.
3. Go to the directory containing your UCS 7.5. Normally this is something like `C:\GCTI\Universal Contact Server\<application_object_name>`.
4. In the `sql_scripts` directory, open the directory named for your database management system.
5. Run the script `upgrade_<dbms_name>_7.2_to_7.5.sql`.

Warning! If you attempt to start the script while an instance of it is still in progress, DB2 databases can be damaged. If this happens, you must restore the database from your backup copy. (This scenario has no effect on Oracle and MS-SQL databases).

Be aware of the following:

- Genesys recommends that you run the upgrade script only once on the database. If you run the script a second time, the database will not be modified but some errors will display.
- Upgrading the UCS database from 7.2 to 7.5 adds a new column (`Header`) to the table `EmailIn`. Because of this, starting UCS for the first time after the upgrade with a large database can take several minutes while UCS fills in the new column.

Interaction Server Database

1. Make a backup copy of the Interaction Server database.

2. Install Interaction Server 7.5.
3. Go to the directory containing your Interaction Server. Normally this is something like `C:\GCTI\Interaction Server\<application_object_name>`.
4. In the `Script` directory, open the directory named for your database management system (`Db2`, `MsSQL`, or `Oracle`).
5. Run the script `isdb_<dbms_name>_7.2-7.5.sql`.

7.5 to 7.6.0

UCS Database

1. Make a backup copy of your UCS 7.5 database.
2. Install UCS 7.6.0.
3. Go to the directory containing your UCS 7.6.0. Normally this is something like `C:\GCTI\Universal Contact Server\<application_object_name>`.
4. In the `sql_scripts` directory, open the directory named for your database management system.
5. The next step varies depending on the RDBMS:
   - For MSSQL and Oracle, run the script `upgrade_<dbms_name>_7.5_to_7.6.sql`
   - For DB2, run the shell script `upgrade_db2_7.5_to_7.6.sh`. You must run this script from an environment properly configured for running the DB2 command line processor.

Interaction Server Database

There is no change in the Interaction Server database schema from 7.5 to 7.6.0.

7.6.0 to 7.6.1

UCS Database

1. Make a backup copy of your UCS 7.6.0 database.
2. Install UCS 7.6.1.
3. Go to the directory containing your UCS 7.6.1 Normally this is something like `C:\GCTI\Universal Contact Server\<application_object_name>`.
4. In the `sql_scripts` directory, open the directory named for your database management system.
5. The next step varies depending on the RDBMS:
   - For MSSQL and Oracle, run the script `upgrade_<dbms_name>_7.6_to_7.6.1.sql`

- For DB2, run the shell script `upgrade_db2_7.6_to_7.6.1.sh`. You must run this script from an environment properly configured for running the DB2 command line processor.

IDN Conversion

If the UCS `convert-idn-to-unicode` option is set to `true`, enabling support of internationalized domain names (IDN), UCS 7.6.1 performs the following conversion the first time it runs:

- Searches for contacts having the IDN escape sequence in one of their e-mail addresses
- For each such contact, converts IDN coded domain names to Unicode.
- Saves the updated contact
- Registers (in its dedicated `SystemProperties` table), that IDN conversion has been performed.

Note: A UCS in a backup configuration must have the same value for `convert-idn-to-unicode` as the primary UCS. In fact, a backup UCS will not start unless all of its option settings are identical to those of the primary.

If you later change the setting of `convert-idn-to-unicode` to `false`, UCS performs the reverse conversion on its next startup, converting Unicode domain names to IDN encoded.

Interaction Server Database

1. Make a backup copy of the Interaction Server database.
2. Install Interaction Server 7.6.1.
3. Go to the directory containing your Interaction Server. Normally this is something like `C:\GCTI\Interaction Server\<application_object_name>`.
4. In the `Script` directory, open the directory named for your database management system (`Db2`, `MsSQL`, or `Oracle`).
5. Run the script `isdb_<dbms_name>_7.6-7.6.1.sql`.

If you want to use the Event Logger functionality of Interaction Server, new in release 7.6.1, you can also run the `eldb_<database_name>.sql` script. For details see the "Event Logger" section in the "Interaction Server: Advanced Topics" section of the "Ongoing Administration and Other Topics" chapter of the *Multimedia 7.6 User's Guide*.

Database-Related Configuration Objects

Two changes in the Interaction Server database may require modifications in some Business Attribute configuration objects.

- Prior to release 7.6.1, the Interaction Server database included fields for customizable properties called `CustomString<n>`, where n was numbers 1–6, and `CustomNumber<n>`, where n was numbers 1–3. These fields do not exist in the 7.6.1 database. If you made use of any of these fields in your pre-7.6.1 configuration, you must perform the following conversion:
  a. Create a new field in the `interactions` database table.
  b. In Configuration Manager, locate the `InteractionCustomProperties` Business Attribute and open its `Attribute Value` that corresponds to your old custom property.
  c. Change the `Attribute Value's` name so that it matches the attached data key that is the source of the content of your custom property.
  d. On the `Annex` tab, `translation` section, edit the value of the `translate-to` option so that it matches the name of the field that you created in Step a.
- In 7.6.1, certain properties that were previously stored as separate database fields are stored in the `flexible_properties` field. This means that they can no longer be used on the `Condition`, `Order`, or `Segmentation` tabs of Views. The properties are:
  - CaseId
  - CategoryId
  - ContactId
  - CustomerSegment
  - DispositionCode
  - FromAddress
  - FromPersonal
  - Mailbox
  - ReasonCode
  - ServiceType
  - Subject

  If you want to continue to use one of these properties in this way, you must create a custom property corresponding to it, as described in the following two sections of the "Interaction Properties" chapter of the *Multimedia 7.6 User's Guide:* "Business Properties Not Stored as Independent Fields" and "Flexible Configuration of Custom Properties."

Knowledge Management Spell Checking Dictionaries

To preserve any customized spell checking dictionaries when migrating, see "Language and Dictionary Names" in the Genesys Knowledge Management: Basics" chapter of the *Multimedia 7.6 User's Guide*

7.6.1 to 8.0.0

UCS Database

1. Make a backup copy of your UCS 7.6.0 database.
2. Install UCS 8.0.
3. Go to the directory containing your UCS 8.0. Normally this is something like `C:\GCTI\Universal Contact Server\<application_object_name>`.
4. In the `sql_scripts` directory, open the directory named for your database management system.
5. The next step varies depending on the RDBMS:
   - For MSSQL and Oracle, run the script `upgrade_<dbms_name>_7.6.1_to_8.0.sql`
   - For DB2, run the shell script `upgrade_db2_7.6.1_to_8.0.sh`. You must run this script from an environment properly configured for running the DB2 command line processor.

Interaction Server Database

There is no change in the Interaction Server database between 7.6.1 and 8.0.

8.0.0 to 8.0.1

UCS Database

1. Make a backup copy of your UCS 8.0.0 database.
2. Make a backup copy of your index files, pointed to by the options `index.xxx\storage-path` (where `xxx` can be `srl`, `contact`, or `interaction`).
3. Install UCS 8.0.1.
4. Go to the directory containing your UCS 8.0. Normally this is something like `C:\GCTI\eServices 8.0.1\Universal Contact Server\<application_object_name>`.
5. In the `sql_scripts` directory, open the directory named for your database management system.
6. The next step varies depending on the RDBMS:
   - For MSSQL and Oracle, run the script `upgrade_<dbms_name>_8.0.0_to_8.0.1.sql`
   - For DB2, run the shell script `upgrade_db2_8.0.0_to_8.0.1.sh`. You must run this script from an environment properly configured for running the DB2 command line processor.

Interaction Server Database

1. Make a backup copy of the Interaction Server database.

2. Install Interaction Server 8.0.1.
3. Go to the directory containing your Interaction Server. Normally this is something like `C:\GCTI\eServices 8.0.1\Interaction Server\<application_object_name>`.
4. In the `Script` directory, open the directory named for your database management system (`Db2`, `MsSQL`, or `Oracle`).
5. Run the script `isdb_<dbms_name>_7.6.1-8.0.1.sql`.
6. If you are using the Event Logger functionality, run the script `eldb_<dbms_name>_7.6.1-8.0.1.sql`.

8.0.1 to 8.0.20

UCS Database

1. Make a backup copy of your UCS 8.0.1 database.
2. Make a backup copy of your index files, pointed to by the options `index.xxx\storage-path` (where `xxx` can be `srl`, `contact`, or `interaction`).
3. Install UCS 8.0.2.
4. Go to the directory containing your UCS 8.0. Normally this is something like `C:\GCTI\eServices 8.0.2\Universal Contact Server\<application_object_name>`.
5. In the `sql_scripts` directory, open the directory named for your database management system.
6. The next step varies depending on the RDBMS:
   - For MSSQL and Oracle, run the script `upgrade_<dbms_name>_8.0.1_to_8.0.2.sql`.
   - For DB2, run the shell script `upgrade_db2_8.0.1_to_8.0.2.sh`. You must run this script from an environment properly configured for running the DB2 command line processor.

Interaction Server Database

There is no change in the Interaction Server database between 8.0.1 and 8.0.20.

8.0.20 to 8.0.21

UCS Database

There are no changes in the UCS database between 8.0.20 and 8.0.21.

Interaction Server Database

The Sample Business Process for Use with Facebook requires that certain fields be added to the Interaction Server database. Installing this Sample

Business Process provides scripts that add these fields, in `<eServices home>\Genesys Business process for use with Facebook\Scripts`. The file names are:

- `AlterTableInteractionsForFacebook8021.sql` (Oracle)
- `AlterTableInteractionsForFacebook802.sql` (MSSQL, DB2)

8.0.21 to 8.1.0

UCS Database

1. Make a backup copy of your UCS 8.0.21 database.
2. Make a backup copy of your index files, pointed to by the options `index.xxx\storage-path` (where `xxx` can be `srl`, `contact`, or `interaction`).
3. Install UCS 8.1.0.
4. Go to the directory containing your UCS 8.1. Normally this is something like `C:\GCTI\eServices 8.1.0\Universal Contact Server\<application_object_name>`.
5. In the `sql_scripts` directory, open the directory named for your database management system.
6. The next step varies depending on the RDBMS:
   - For MSSQL and Oracle, run the script `upgrade_<dbms_name>_8.0.2_to_8.0.3.sql`, then run `upgrade_<dbms_name>_8.0.3_to_8.1.0.sql`.
   - For DB2, run the shell script `upgrade_db2_8.0.2_to_8.0.3.sh`, then run `upgrade_db2_8.0.3_to_8.1.0.sh`. You must run this script from an environment properly configured for running the DB2 command line processor.

Interaction Server Database

Installing the Sample Business Processes for Social Media offers you the option of adding Custom Interaction Properties that are used in integration with iWD. If you selected this option, you must also modify your Interaction Server database by running the script `AlterTableInteractionsForIWDIntegration81.sql` (the filename is the same for all three supported databases), normally located in `C:\Program Files\GCTI\eServices 8.1.0\Genesys Business process for use with Facebook\Scripts`. For more information, see "Deploy the Sample Business Processes for Social Media" in the *eServices Social Media Solution Guide.*

8.1.0 to 8.1.1

UCS Database

1. Make a backup copy of your UCS 8.1.0 database.
2. Make a backup copy of your index files, pointed to by the options `index.xxx\storage-path` (where `xxx` can be `srl`, `contact`, or `interaction`).
3. Install UCS 8.1.1.
4. Go to the directory containing your UCS 8.1. Normally this is something like `C:\GCTI\eServices 8.1.1\Universal Contact Server\<application_object_name>`.
5. In the `sql_scripts` directory, open the directory named for your database management system.
6. The next step varies depending on the RDBMS:
   - For MSSQL and Oracle, run the script `upgrade_<dbms_name>_8.1.0_to_8.1.1.sql`.

For DB2, run the shell script `upgrade_db2_8.1.0_to_8.1.1.sh`. You must run this script from an environment properly configured for running the DB2 command line processor.

Interaction Server Database

Installing the Sample Business Processes for Social Media offers you the option of adding Custom Interaction Properties that are used in integration with iWD. If you selected this option, you must also modify your Interaction Server database by running the script `AlterTableInteractionsForIWDIntegration81.sql` (the filename is the same for all three supported databases), normally located in `C:\Program Files\GCTI\eServices 8.1.1\Genesys Business process for use with Facebook\Scripts`. For more information, see "Deploy the Sample Business Processes for Social Media" in the *eServices Social Media Solution Guide.*

8.1.1 to 8.1.2

UCS 8.1.2 Database (UCS 8.1.2 is delivered separately, but is fully compatible with eServices 8.1.2)

1. Make a backup copy of your UCS 8.1.1 database.
2. Make a backup copy of your index files, pointed to by the options `index.xxx\storage-path` (where `xxx` can be `srl`, `contact`, or `interaction`).
3. Install UCS 8.1.2.
4. Go to the directory containing your UCS 8.1.2. Normally this is something like `C:\GCTI\eServices 8.1.2\Universal Contact Server\<application_object_name>`.

5. In the `sql_scripts` directory, open the directory named for your database management system.
6. The next step varies depending on the RDBMS:
   - For MSSQL and Oracle, run the script `upgrade_<dbms_name>_8.1.1_to_8.1.2.sql`.
   - For DB2, run the shell script `upgrade_db2_8.1.1_to_8.1.2.sh`. You must run this script from an environment properly configured for running the DB2 command line processor.

Interaction Server Database

Installing the Sample Business Processes for Social Media offers you the option of adding Custom Interaction Properties that are used in integration with iWD. If you selected this option, you must also modify your Interaction Server database by running the script `AlterTableInteractionsForIWDIntegration81.sql` (the filename is the same for all three supported databases), normally located in `C:\Program Files\GCTI\eServices 8.1.2\Genesys Business process for use with Facebook\Scripts`. For more information, see "Deploy the Sample Business Processes for Social Media" in the *eServices Social Media Solution Guide.*

8.1.2 to 8.1.201

UCS Database

There are no changes in the UCS database between 8.1.2 and 8.1.201—UCS was not updated in the eServices 8.1.201 release.

Interaction Server Database

There are no changes in the Interaction Server database between 8.1.2 and 8.1.201.

However, installing the Sample Business Processes for Social Media offers you the option of adding Custom Interaction Properties that are used in integration with iWD. If you selected this option, you must also modify your Interaction Server database by running the script `AlterTableInteractionsForIWDIntegration81.sql` (the filename is the same for all three supported databases), normally located in `C:\Program Files\GCTI\eServices 8.1.2\Genesys Business process for use with Facebook\Scripts`. For more information, see "Deploy the Sample Business Processes for Social Media" in the *eServices Social Media Solution Guide.*

8.1.201 to 8.1.3

UCS Database

Since there was no 8.1.201 version of UCS, the upgrade is from 8.1.2 to 8.1.3.

1. Make a backup copy of your UCS 8.1.2 database.
2. Make a backup copy of your index files, pointed to by the options `index.xxx\storage-path` (where `xxx` can be `srl`, `contact`, or `interaction`).
3. Install UCS 8.1.3.
4. Go to the directory containing your UCS 8.1.3. Normally this is something like `C:\GCTI\eServices 8.1.3\Universal Contact Server\<application_object_name>`.
5. In the `sql_scripts` directory, open the directory named for your database management system.
6. The next step varies depending on the RDBMS:
   - For MSSQL and Oracle, run the script `upgrade_<dbms_name>_8.1.2_to_8.1.3.sql`.
   - For DB2, run the shell script `upgrade_db2_8.1.2_to_8.1.3.sh`. You must run this script from an environment properly configured for running the DB2 command line processor.

Interaction Server Database

There are no changes in the Interaction Server database between 8.1.201 and 8.1.3.

However, installing the Sample Business Processes for Social Media offers you the option of adding Custom Interaction Properties that are used in integration with iWD. If you selected this option, you must also modify your Interaction Server database by running the script `AlterTableInteractionsForIWDIntegration81.sql` (the filename is the same for all three supported databases), normally located in `C:\Program Files\GCTI\eServices 8.1.3\Genesys Business process for use with Facebook\Scripts`. For more information, see "Deploy the Sample Business Processes for Social Media" in the *eServices Social Media Solution Guide.*

8.1.3 to 8.1.4

UCS Database

1. Make a backup copy of your UCS 8.1.3 database.
2. Make a backup copy of your index files, pointed to by the options `index.xxx\storage-path` (where `xxx` can be `srl`, `contact`, or `interaction`).
3. Install UCS 8.1.4.
4. Go to the directory containing your UCS 8.1.4. Normally this is something like `C:\GCTI\eServices 8.1.4\Universal Contact Server\<application_object_name>`.
5. In the `sql_scripts` directory, open the directory named for your database management system.
6. The next step varies depending on the RDBMS:

- For MSSQL and Oracle, run the script `upgrade_<dbms_name>_8.1.3_to_8.1.4.sql`.
- For DB2, run the shell script `upgrade_db2_8.1.3_to_8.1.4.sh`. You must run this script from an environment properly configured for running the DB2 command line processor.

Interaction Server Database

There are no changes in the Interaction Server database between 8.1.3 and 8.1.4.

However, installing the Sample Business Processes for Social Media offers you the option of adding Custom Interaction Properties that are used in integration with iWD. If you selected this option, you must also modify your Interaction Server database by running the script `AlterTableInteractionsForIWDIntegration81.sql` (the filename is the same for all three supported databases), normally located in `C:\Program Files\GCTI\eServices 8.1.4\Genesys Business process for use with Facebook\Scripts`. For more information, see "Sample Business Processes for Social Media" *eServices Social Media Solution Guide*, available on the eServices product page on the Genesys Documentation website.

8.1.4 to 8.5.0

UCS Database

1. Make a backup copy of your UCS 8.1.4 database.
2. Make a backup copy of your index files, pointed to by the options `index.xxx\storage-path` (where `xxx` can be `srl`, `contact`, or `interaction`).
3. Install UCS 8.5.0.
4. Go to the directory containing your UCS 8.5.0. Normally this is something like `C:\GCTI\eServices 8.5\Universal Contact Server\<application_object_name>`.
5. In the `sql_scripts` directory, open the directory named for your database management system.
6. The next step varies depending on the RDBMS:
   - For MSSQL and Oracle, run the script `upgrade_<dbms_name>_8.1.4_to_8.5.sql`.
   - For DB2, run the shell script `upgrade_db2_8.1.4_to_8.5.db2.sh`. You must run this script from an environment properly configured for running the DB2 command line processor.

Interaction Server Database

There are no changes in the Interaction Server database between 8.1.4 and 8.5.0.

However, installing the Sample Business Processes for Social Media includes the following:

- The installation process offers you the option of adding Custom Interaction Properties that are used in integration with iWD. If you selected this option, you must also modify your Interaction Server database by running the script `AlterTableInteractionsForIWDIntegration81.sql` (the filename is the same for all three supported databases), normally located in `C:\Program Files\GCTI\eServices 8.5\Genesys Business process for use with Facebook\Scripts` or in `C:\Program Files\GCTI\eServices 8.5\Genesys Business process for use with Twitter\Scripts`.
- The installation of Business Process for use with Facebook delivers the scripts `AlterTableInteractionsForFacebook8021.sql` (Oracle) and `AlterTableInteractionsForFacebook802.sql` (MSSQL, DB2). You must run these scripts to add fields to the Interaction Server database in order to be able to process Facebook interactions correctly in the Business Process.

For more information, see "Deploy the Sample Business Processes for Social Media" in the *eServices Social Media Solution Guide*, available on the eServices product page on the Genesys Documentation website.

Web Portal

Web Portal here means Web API Server and whatever web content you have created based on the Web Compound Samples (pre-8.0.0) or Web Samples (8.0.0 and later).

7.0 to 7.1

Your MCR 7.0 web application and Web API Server will work with MCR 7.1 components. You only need to upgrade to Web API Server 7.1 if you want your web application to use functionalities (such as voice callback and web forms) that are new in MCR 7.1.

7.1 to 7.2

Your MCR 7.1 web application and Web API Server will work with Multimedia 7.2 components. You only need to upgrade to Web API Server 7.2 if you want your web application to use functionalities that are new in MCR 7.2, such as web collaboration.

7.2 to 7.5

Your Multimedia 7.2 web application and Web API Server will work with Multimedia 7.5 components.

7.5 to 7.6

Your Multimedia 7.5 web application and Web API Server will work with Multimedia 7.6 components, except for the limitations described in Table 200 on page 1191.

7.6.1 to 8.0.0

Your Multimedia 7.6.1 web application and Web API Server will work with Multimedia 8.0.0 components.

8.0.0 to 8.0.1

Your Multimedia 8.0.0 web application and Web API Server will work with eServices 8.0.1 components.

8.0.1 to 8.0.20

Your eServices 8.0.1 web application and Web API Server will work with eServices 8.0.20 components. Note, however that the e-mail samples in Web API Server 8.0.20 are not compatible with E-Mail Server Java 8.0.1 and lower. A workaround is described in the Web API Server Release Note.

8.0.20 to 8.0.21

Your eServices 8.0.20 web application and Web API Server will work with eServices 8.0.21 components.

8.0.21 to 8.1.0

Your eServices 8.0.21 web application and Web API Server will work with eServices 8.1.0 components.

8.1.0 to 8.1.1

Your eServices 8.1.0 web application and Web API Server will work with eServices 8.1.1 components.

8.1.1 to 8.1.2

Your eServices 8.1.1 web application and Web API Server will work with eServices 8.1.2 components.

8.1.2 to 8.1.201

Your eServices 8.1.2 web application and Web API Server will work with eServices 8.1.201 components.

8.1.201 to 8.1.3

Your eServices 8.1.201 web application and Web API Server will work with eServices 8.1.3 components.

8.1.3 to 8.1.4

Web API Server was not upgraded in release 8.1.4.

8.1.4 to 8.5.0

Web API Server is no longer included in the eServices product. You can use Web API Server 8.1.2 with eServices 8.5.0, but note that Web API Server 8.1.2 does not work with Stat Server 8.1.1 and above.

Other Data and Objects

1. Migrate or configure any data that is specific to your solution, such as agent capacity rules.
2. If you have Genesys Content Analyzer, you must convert all stop word files to UTF-8 format (prior to release 7.6, stop word files were in ANSI format). These files are located in the root directories of Knowledge Manager and Training Server. To convert one, open it with a text editor and save as UTF-8. For example, in Microsoft Notepad, select `UTF-8` in the `Encoding` field of the `Save As` dialog box.

   For more description of stop word files, see the "Notes on Language" section in the "Genesys Knowledge Management: Content Analysis" chapter of the *Multimedia 7.6 User's Guide* or later.
3. Migrate routing strategies. For details see the "Universal Routing Migration Procedures" chapter of this guide.

   Note: Strategy objects may contain Application object names (for example, the `Classify` object can specify a Classification Server). If your new installation uses different names for any such Applications, you must update the strategies to use these new names.
4. Migrate Agent and/or Supervisor Desktop if you are not already using the new versions.

   Note: Consult Professional Services regarding migration of any and all customized Genesys products.
5. Migrate Reporting templates for your new solution.

Part

22 Genesys Voice Platform 7.x Migration

The chapters in this section show the migration process from previous releases to release 7.6 of Genesys Voice Platform (GVP).

This Part contains the following chapters:

- Chapter 63, “Upgrading to Genesys Voice Platform 7.6,” on page 1301 discusses the migration procedures and the migration order for migrating from Voice Web Application Platform (VWAP) 6.5.x, GVP 7.0.3, 7.2.x, and 7.5 to GVP 7.6.
- Chapter 64, “Upgrading to Genesys Voice Platform 7.5,” on page 1325 discusses the migration procedures and the migration order for migrating from Voice Web Application Platform (VWAP) 6.5.4, GVP 7.0.3 and 7.2 to GVP 7.5.
- Chapter 65, “Migration for Genesys Voice Platform: Network Edition,” on page 1363 discusses the migration procedures and the migration order for migrating from Voice Web Application Platform (VWAP) 6.5.4 and 7.0.3 to GVP: NE 7.2.
- Chapter 66, “Migration for Genesys Voice Platform: Enterprise Edition,” on page 1383 discusses the migration procedures and the migration order for migrating from GVP: EE 6.5.5 and 7.0.3 to GVP: EE 7.2.
- Chapter 67, “Migration for Genesys Voice Platform: Developer’s Edition,” on page 1399 discusses the migration procedures and the migration order for migrating from GVP: DE 6.5.4 and 7.0.3 to GVP: DE 7.2.
- Chapter 68, “Migration for Genesys Voice Platform: Studio,” on page 1403 discusses the migration procedures and the migration order for migrating from GVP: Studio 6.5.5, 7.0.3, 7.2, and 7.5.
- Chapter 69, “Migration for Genesys Voice Platform: VAR,” on page 1417 discusses the migration procedures and the migration order for migrating from GVP: Voice Application Reporter 6.5.5, 7.0.3, 7.2, and 7.5.

Chapter

63 Upgrading to Genesys Voice Platform 7.6

This chapter discusses the procedures and order for migrating data and upgrading software to Genesys Voice Platform (GVP) 7.6.

Note: The conventions used in this chapter are:

- *Upgrade*—refers to replacing previous versions of GVP software with GVP 7.6 software.
- *Migrate*—refers to migrating Voice Portal Manager (VPM) data from Genesys Voice Platform: Enterprise Edition (GVP: EE) or migrating Element Management Provisioning System (EMPS) data from Genesys Voice Platform: Network Edition (GVP: NE) to the 7.6 EMPS.

This chapter includes the following sections:

GVP 7.5 to GVP 7.6

Mixed Mode

A mixed-mode operation is possible. Some hosts can be running GVP 7.5 software, other hosts can be running GVP 7.6. However all components on one host or guest OS when using VMware must be running the same version.

Scenarios

You do not need to follow a specific sequence for upgrading various components. However, two common scenarios are described:

- You want to upgrade all GVP components from 7.5 to 7.6.

- You want to upgrade only selected GVP components from 7.5 to 7.6.

Slightly different approaches are suggested for these two scenarios to make the best use of the available tools and to ease the upgrade process.

In-Service Upgrade

Use the following strategy for *in-service* upgrade, which is upgrading to 7.6 while calls are still being processed:

- Upgrade one host at a time.
- Perform the upgrade during lean call periods for incoming calls.
- Make sure that there are redundant hosts (primary and backup) for each component, except EMPS.
- Upgrade the backup host first. Ensure that the upgraded backup host works by changing profiles to direct a small fraction of the calls to the backup host, and then upgrade the primary host. This does not apply to EMPS, VCS, or IPCS.
- Start by upgrading EMPS, and then upgrade EMS Runtime components, Reporting, IPCM, and IPCS/VCS in that order.

Use the instructions: “Scenario 2: Upgrade Only Selected Components” on page 1304.

Scenario 1: Upgrade All Components

Step 1—Stop Making Provisioning Changes

Do not provision new applications or change server configurations until the migration is complete or unless required as an explicit step during migration.

Step 2—Load the New Management Information Bases (MIBs)

Note: If no Network Management System (NMS) is deployed, these steps do not apply.

1. If you are using an NMS that receives Simple Network Management Protocol (SNMP) traps from GVP, load the 7.6 GVP MIBs into the NMS before installing any GVP components.
2. If pre-GVP 7.6 MIBs exist on the NMS, overwrite them with the GVP 7.6 MIBs.
3. Check your NMS user guide for instructions about loading the MIBs.

   Loading new MIBs ensures that any traps generated by the new GVP 7.6 are represented in your NMS. Refer to the *Genesys Voice Platform 7.6 Deployment Guide* for instructions on how to extract GVP 7.6 MIBs.

Step 3—Install EMPS 7.6 on Existing EMPS 7.5 Host

1. Stop WatchDog and uninstall all GVP components on the EMPS host by using `Add/Remove Programs` from the Control Panel.
2. Install GDA from the GVP 7.6 Base DVDs installation folder.
3. Using the GDT, install EMPS 7.6. Refer to the *Genesys Voice Platform 7.6 Deployment Guide* for details. Select the `Upgrade to GVP 7.6` option, and then select the `Install EMPS and upgrade` option to achieve this step. Make sure that you use the same tenancy option (`Single Tenancy` or `Multi-Tenancy`) as previously used.
4. From the SQL Query Analyzer, run the script `EMPS_DB_NEW_76_SQLServer.sql` against the EMPS catalog to update the schema for EMPS Reporting.

> **Note:** You do not need to run the DMT to migrate configuration data from 7.5 to 7.6 because there is no schema change in LDAP. The only change required is to replace the `McuXml` node with the `Mcu` node, which is achieved by the IPCS setup executable.

Step 4—Upgrade all Other Hosts

1. Upgrade the GDA to version 7.6 on the target hosts:
   a. Start GVP 7.6 GDT on the host that was used to deploy GVP 7.5 software.
   b. In the GDT Wizard, click `Cancel`.
   c. In the main GDT menu, select `Deploy > Maintenance > GDA Upgrade`.
   d. Specify the software location by browsing to the appropriate GVP 7.6 DVD images.
   e. Click `Next`.

      GDT copies the GVP 7.6 DVD software to `C:\GDT\Media` by overwriting the version 7.5 folders. This will take a few minutes because it also zips the software. When it is finished, GDT asks you to select the servers for the selected operation (GDA upgrade).
   f. Add the target host servers to move them to the right window, and then click `Next`.

      GDT transfers the base DVD software to the target hosts and upgrades the GDA on the target host to version 7.6. When the upgrade is completed, click `Finish`, and then exit the GDT main window.
2. Re-launch GDT 7.6.

   GDT connects to the 7.5 EMPS and displays all of the configured servers in the main window.
3. In the GDT Wizard, select the `Upgrade to GVP 7.6` radio button. On the next screen, select `Use Existing EMPS to upgrade`.

The Overview screen displays the GVP Upgrade Task List. Follow the instructions on the screen and select the check box if GDA was installed and running on all servers on which GVP software will be installed.

4. The Specify Setup Type screen prompts you to select the setup type (IP/TDM Telephony).
   a. Verify that the settings are the same settings used in GVP 7.5. Do not change the settings after verifying.
   b. On the Copy Software screen, specify the software location for the GVP 7.6 DVD images.

      GDT re-copies all of the base software DVD to C:\GDT\Media.

      The EMPS Connection Settings screen asks you to enter information about EMPS. Do not change the pre-filled information.

      Click Next.

   The Migrate EMPS Data screen appears.
5. Select the check box I have migrated the data to new EMPS 7.6, even though you did not migrate any data using DMT. Click Next.

   The Upgrade GVP Servers screen appears. This screen finds the GVP servers in the network that can be upgraded. The main GDT window should now show the current versions and the new versions of the GVP software that have been copied.
6. Select the target hosts and click Add to move them in the right window. Click Next.

   This starts the process of transferring the software to the target hosts and then upgrading to release 7.6:
   a. The GDT uninstalls all components on the target hosts.
   b. The GDT installs release 7.6 of the components. No reconfiguration is performed.

      When the upgrade is complete, the status will be updated in the Wizard and in the GDT main window.
   c. Click Finish in the GDT Wizard.

Note: You do not need to run any MSSQL scripts on the Reporting Servers' Databases to upgrade tables for Collector, Reporter, and so on, because the schemas have not changed from GVP 7.5.

Scenario 2: Upgrade Only Selected Components

IPCS Host Only

1. Save the ASR and TTS MRCP Server Groups information:
   a. Log in to EMPS.
   b. Go to the target host under IPCS.

   c. Go to the node `McuXml > ASR > MRCP`. From the servers selection for the primary and backup ASR MRCP server groups, write down the selected Server groups on a piece of paper.
   d. Go to the node `TTS_MRCP > TTS > MRCP`. From the servers selection for the primary and backup TTS MRCP server groups, write down the selected Server groups on a piece of paper.
2. Change (or add) the `minaudiodnldsize` parameter in `TTS_MRCP` to `8192`.
3. Change the `TTS_MRCP` server streaming to `realtime`.
4. Initiate a graceful shutdown of WatchDog on the target host. If calls are stuck and shutdown has not occurred, you can initiate an ungraceful shutdown.
5. Upgrade the GDA to version 7.6 on the target host (IPCS):
   a. Using the GDT, copy the GVP 7.6 Base DVD image to the hard drive on the system from where GVP 7.5 was deployed.
   b. In the DVD image on the hard drive, go to the `solution_specific\windows\install` folder and double-click `GVPLaunch.bat` to run GDT.
   c. In the GDT wizard, select `Cancel`.
   d. In the main GDT menu, select `Deploy > Maintenance > GDA Upgrade`. Specify the software location by browsing to the `solution_specific\windows` in the GVP 7.6 Base DVD image.
   e. Click `Next`.

      GDT copies the GVP 7.6 Base DVD software to `C:\GDT\Media` by overwriting the version 7.5 folders. This will take a few minutes, because it is also zipping the software. When it is complete, GDT asks you to select the servers for the selected operation (GDA upgrade).
   f. Add the target host server to move it to the right window, and then click `Next`.

      GDT transfers the base DVD software to the target host, and then upgrades the GDA on the target host to release 7.6.
   g. Once the upgrade is complete, click `Finish`, and then exit the GDT main window.
6. Re-launch GDT 7.6 from the `solution_specific\windows\install` folder.

   GDT connects to the 7.5 EMPS and displays all of the configured servers in the main window.
   a. In the GDT Wizard, select the `Upgrade to GVP 7.6` radio button. On the next screen, select `Use Existing EMPS to upgrade`.
   b. Ignore the text that says this option is used to `Upgrade using the existing EMPS (7.6 version) which has the migrated data` because you are running with EMPS (7.5 version).

   c. The Overview screen displays the GVP Upgrade Task List. Follow the instructions on this screen and select the check box if GDA was installed and running on all servers on which GVP software will be installed.

7. The Specify Setup Type screen prompts you to select the setup type (IP/TDM Telephony).

   Do not change the settings after verifying that these are the same settings you used for GVP 7.5.

   On the Copy Software screen, specify the software location for the GVP 7.6 Base DVD image only by browsing to the solution_specific\windows folder.

   Do not change the other DVD locations; they still point to the GVP 7.5 DVD images. The GDT re-copies all of the base software DVD to C:\GDT\Media.

   The EMPS Connection Settings screen prompts you to enter information about EMPS. Do not change the pre-filled information.

8. Click Next.

9. The Migrate EMPS Data screen has a checkbox that says I have migrated the data to new EMPS 7.6. Select this check box even though you have not upgraded EMPS or migrated any data. This is necessary if you are performing a complete migration (including EMPS) from 7.5 or earlier versions.

10. Click Next.

    The Upgrade GVP Servers screen appears. This screen finds the GVP servers in the network that can be upgraded. The main GDT window should now show the current versions and the new versions of the GVP software that have been copied. Select the target hosts and click Add to move them in the right window. Click Next.

    This starts the process of transferring the software to the target hosts and then upgrading to release 7.6:

    a. The GDT uninstalls all components on the target hosts.

    b. The GDT installs release 7.6 of the components. No reconfiguration is performed.

    When the upgrade is complete, the status will be updated in the Wizard and in the GDT main window.

    c. Click Finish in the GDT Wizard.

    d. You do not need to run any MSSQL scripts on the Reporting Servers' Databases to upgrade tables for Collector, Reporter, and so on, because the schemas have not changed from GVP 7.5.

11. Click Finish in the GDT Wizard.

TTS will not be upgraded for IPCS because it is not needed as a separate process in GVP 7.6, and it is now part of the Mcu process.

For the IPCS host, you must manually move the information from the `McuXml` node to the `MCU` node in EMPS:

1. Log in to EMPS.
2. Go to the target host under IPCS.
3. Go to `Mcu > ASR > MRCP`. In the `Servers` selection for the `Primary and Backup ASR MRCP Server Groups`, select the same server groups as previously existed in the `McuXml` node (which no longer exists). This information was saved in Step 1 for upgrading IPCS hosts.
4. Go to `Mcu > TTS > MRCP`. In the `Servers` selection for the `Primary and Backup TTS MRCP Server Groups`, select the same server groups as previously existed in the `TTS_MRCP` node (which no longer exists). This information was saved in Step 1 for upgrading IPCS hosts.

VCS Host Only

1. Upgrade the Dialogic software to the latest version for GVP 7.6 by uninstalling the older Dialogic software, and then installing the Dialogic software using the GVP 7.6 Dialogic SR 6.0 DVD.
2. Follow Step 4 through Step 11 in the section "IPCS Host Only" on page 1304.

IPCM Host Only

- Follow Step 4 through Step 11 in the section "IPCS Host Only" on page 1304. Instead of specifying the Base DVD image location, specify the location for the SIP Call Manager or H.323 Call Manager DVD image.

EMS Run Time Host Only

- Follow Step 4 through Step 11 in the section "IPCS Host Only" on page 1304.

Reporting Server Host Only

- Follow Step 4 through Step 11 in the section "IPCS Host Only" on page 1304. Instead of specifying Base DVD image location, specify the location for the Reporting and Monitoring DVD image.

> **Note:** You do not need to run any MSSQL scripts on the Reporting Servers' Databases to upgrade tables for Collector, Reporter, and so on, because the schemas have not changed from GVP 7.5.

EMPS Host Only

1. Stop WatchDog and uninstall all GVP components on the EMPS host by using `Add/Remove Programs` from the Control Panel.

2. Install GDA from the GVP 7.6 Base DVDs installation folder.
3. Using the GDT, install EMPS 7.6. Refer to the *Genesys Voice Platform 7.6 Deployment Guide* for details. Select the `Upgrade to GVP 7.6` option, and then select the `Install EMPS and upgrade` option to achieve this step. Make sure that you use the same tenancy option (`Single Tenancy` or `Multi-Tenancy`) as previously used.
4. From the SQL Query Analyzer, run the script `EMPS_DB_NEW_76_SQLServer.sql` against the EMPS catalog to update the schema for EMPS Reporting.

Note: You do not need to run the DMT to migrate configuration data from 7.5 to 7.6 because there is no schema change in LDAP. The only change required is to replace the `McuXml` node with the `Mcu` node, and that is achieved by the IPCS setup executable.

Hosts with Components not Installed Using GDT

1. Uninstall all GVP components on the hosts by using `Add/Remove Programs` from the Control Panel.
2. Install the new components from the GVP 7.6 DVDs by running the setup executable file for each component.

Note: You do not need to reconfigure the components in EMPS because the configuration information is already stored in the EMPS (7.5) LDAP database.

GVP 7.2.x to GVP 7.6

Installation Sequence GVP 7.6 EMPS installation is always performed first, followed by data migration, and then the software upgrade.

Direct Migration and Upgrade You can migrate/upgrade directly from GVP 7.2.x to GVP 7.6. You do not need to first migrate/upgrade to GVP 7.5

In-Service Upgrade In-service upgrade is supported where calls can continue to be processed while different hosts are upgraded from 7.2.x to 7.6. You must have backup EMS Runtime components configured in the 7.2.x network. Perform the upgrade during off-peak periods.

Mixed Mode During the upgrade and migration, some hosts in the GVP network can run release 7.2.x and other hosts can run release 7.6. However, Genesys does not recommend mixed-mode for long-term operation.

GVP Common You must upgrade all GVP components on one host at the same time because the GVP components must use the same release of GVP Common.

GVP: EE 7.2.x to GVP 7.6

Strategy Overview

- GVP 7.6 only supports Windows 2003. Make sure that you have upgraded your 7.2.x host operating systems to Windows 2003 before starting the migration.
- Using the DMT, migrate the provisioning data from release 7.2.x Voice Portal Manager (VPM) to release 7.6 Element Management Provisioning System (EMPS). You can install EMPS 7.6 on a new server or on the existing VPM server provided that 7.2.x Common is not installed on the VPM server.
- The Data Migration Tool in EMPS has a Server Mapping feature that can help you move existing customer/application data to a new network. It provides a mapping capability by which old server names can be mapped to new server names, and the data transformation will also change the server names, where applicable. You should use this feature to preserve the configuration of the GVP 7.2.x servers while installing the GVP 7.6 software on new Windows 2003 servers.

Important

The source server and target server in the Server Mapping window must have the same combination of components. For example, if the source server has IPCS, PM, and BWM, the target server must only have IPCS, PM, and BWM.

- Make sure you have a properly functioning GVP 7.2.x network before proceeding with the migration. Do not debug existing 7.2.x configurations and migrate to 7.6 at the same time.
- To ensure that you can take calls while the network is being upgraded, use the following sequence:
  - Stop making provisioning changes and back up the provisioning data.
  - Install EMPS 7.6, and using the DMT, migrate the data from the old provisioning system.
  - Upgrade the backup IPCM (SSM/H.323 and RM).
  - Upgrade the primary IPCM (SSM/H.323 and RM).
  - Upgrade the VCS/IPCS hosts.

Procedure

Step 1—Back up the Voice Portal Manager (VPM) Database

1. Make sure that you back up existing configuration information. This facilitates reconfiguration after upgrading and in case you must roll-back the upgrade. You can do this by making a copy of the `cn_vpm` folder and storing it as a backup.

2. Do not provision new applications or change server configurations until the migration is complete or unless required as an explicit step during migration.

Step 2—Load the New Management Information Bases (MIBs)

Note: If no Network Management System (NMS) is deployed, these steps do not apply.

1. If you are using an NMS that receives Simple Network Management Protocol (SNMP) traps from GVP, load the 7.6 GVP MIBs into the NMS before installing any GVP components.
2. If pre-GVP 7.6 MIBs exist on the NMS, overwrite them with the GVP 7.6 MIBs.
3. Check your NMS user guide for instructions about loading the MIBs.

   Loading new MIBs ensures that any traps generated by the new GVP 7.6 are represented in your NMS. Refer to the *Genesys Voice Platform 7.6 Deployment Guide* for instructions on how to extract GVP 7.6 MIBs.

Step 3—Install EMPS 7.6

1. Using the GDT, install EMPS 7.6. You can install it on the same server as VPM, as long as no other GVP 7.2.x components are installed on that server. Refer to the *Genesys Voice Platform 7.6 Deployment Guide* for details.
2. Select the `Upgrade to GVP 7.6` option, and then select the `Install EMPS and upgrade` option to achieve this step. Make sure that you select the `Single Tenancy` option.

Step 4—Migrate Data from VPM to EMPS 7.6 Using the DMT

1. To launch DMT on the EMPS 7.6 server, double-click the file `<install directory>DMT\bin\run_dmt.bat`.

   The `Welcome to the GVP Data Migration Tool` screen appears.
2. Click `Next`.

   The `Version Selection` screen appears.
3. Select the source installation type.
4. Select `VPM` and `version (7.2.x)` from the drop-down list. Click `Next`.

   The `VPM Source Configuration` screen appears.
5. Click `Browse` to select the VPM installation path if installing on the same host. This can also be a copy of the `cn_vpm` folder. If running the DMT from a server that is different from the VPM, the path to the `cn_vpm` folder can be a mapped drive. Click `Next`.

The EMPS Destination Configuration screen appears.

6. In the EMPS Host text box, enter the Fully Qualified Domain Name (FQDN) of the EMPS 7.6 host. The user name of admin is already entered. In the Password text box, enter the login password for EMPS 7.6 (typically the word password). Click Next.

   The Migration Options screen appears.

7. From the list of configuration elements, select the elements to migrate:
   - Resellers/Customer/Application Data
   - Servers

   The executable file SCAImport.exe migrates the data. If the executable cannot be found in the default path, a message appears, and the DMT prompts for the location of the file.

   Click Browse for SCAImport and select <EMPS install directory>\bin\SCA.exe.

   Click Next.

   The Dispenser Information screen appears.

8. In the Dispenser Host text box, enter the FQDN of the Dispenser host. In the Dispenser Port text box, enter the port of the Dispenser host if it is different from the default of 80. Click Next.

   The Confirm Settings screen appears.

9. Review the selections. Click Back if you need to make changes. Click Next.

   The Start button appears.

10. Click Start.

11. When the data migration is complete, click Finish.

After data migration, the EMPS will not reflect the correct format of the field names. All of the migrated field names in EMPS will be preceded with an exclamation mark (!) because the 7.6 template has not yet been assigned to the specific server. Once the software upgrade is complete and the 7.6 templates are assigned, the EMPS field names appear as expected.

Although the GDT configures most parameters, you are responsible for ensuring that specific servers are configured correctly after upgrading. For example, if you want to use a different Dispenser, you must correct the Dispenser address.

Step 5—Upgrade the Backup IPCM Host

In-service upgrade requires a backup IPCM host.

If you do not have a backup IPCM host and you do not want in-service upgrade, you can skip this step.

If you do not have a backup IPCM host and you want in-service upgrade, you must first install and configure a backup IPCM host by following the instructions in the *Genesys Voice Platform 7.2 Deployment Guide*.

Continue with the GDT to upgrade other servers, starting with the IPCM backup host. If you exited the GDT, you can invoke it again and select the `Upgrade to GVP 7.6` radio button. On the next screen, select `Use Existing EMPS to upgrade.`

1. Initiate a graceful shutdown of WatchDog on the backup IPCM. If calls are stuck and shutdown has not occurred, you can initiate an ungraceful shutdown.
2. Install GDA on the target host as detailed in the *Genesys Voice Platform 7.6 Deployment Guide.*
3. Using the GDT, install GVP 7.6 Resource Manager (RM) and GVP 7.6 SIP Session Manager/H.323 Session Manager (SSM/HSM).

   The `Upgrade GVP Servers` screen locates the GVP servers in the network that can be upgraded. The main GDT window should now show the current versions and the new versions of the GVP software that have been copied.
4. Select the IPCM (backup) target host and click `Add` to move it in the right window. Click `Next`. This starts the process of transferring the software to the target host and then upgrading to release 7.6.
5. Click `Finish` when the upgrade is complete.

> **Note:** A message may appear during the uninstallation of SSM that states `TlraSessionMgr error - Application error while referencing memory at 0x00000`. You can ignore this error, but do not click `OK` until the upgrade is complete.

6. Restart WatchDog on the IPCM. Restart all IPCSs in the network to register them with the backup IPCM.
7. Move five percent of the existing call traffic to the backup IPCM, and then monitor the system. If there are no issues, slowly increase the call traffic to 100 percent. If calls are not being processed correctly by the backup IPCM, restore the original configuration and contact Genesys Technical Support.

Step 6—Upgrade the Primary IPCM Host

Continue with the GDT to upgrade the primary IPCM host. If you exited the GDT, you can invoke it again and select the `Upgrade to GVP 7.6` radio button. On the next screen, select `Use Existing EMPS to upgrade.`

1. Initiate a graceful shutdown of WatchDog on the primary IPCM. If calls are stuck and shutdown has not occurred, you can initiate an ungraceful shutdown.
2. Install GDA on the target host as detailed in the *Genesys Voice Platform 7.6 Deployment Guide.*
3. Using the GDT, install GVP 7.6 Resource Manager (RM) and GVP 7.6 SIP Session Manager/H.323 Session Manager (SSM/HSM).

The Upgrade GVP Servers screen locates the GVP servers in the network that can be upgraded. The main GDT window should now show the current versions and the new versions of the GVP software that have been copied.

4. Select the IPCM (primary) target host and click Add to move it in the right window. Click Next.

   This starts the process of transferring the software to the target host and then upgrading to release 7.6.

5. Click Finish when the upgrade is complete.

> **Note:** A message may appear during the uninstallation of SSM that states TlraSessionMgr error - Application error while referencing memory at 0x00000. You can ignore this error, but do not click OK until the upgrade is complete.

6. Restart WatchDog on the IPCM. Restart all IPCSs in the network to register them with the primary IPCM.
7. Move five percent of the existing call traffic to the primary IPCM, and then monitor the system. If there are no issues, slowly increase the call traffic to 100 percent. If calls are not being processed correctly by the primary IPCM, restore the original configuration and contact Genesys Technical Support.

Step 7—Upgrade the IPCS/VCS Host(s)

Continue with the GDT to upgrade the VCS/IPCS hosts one at a time. If upgrading a VCS, first upgrade the Dialogic software to the latest version for GVP 7.6 by uninstalling the older Dialogic software, and then installing the Dialogic software using the GVP 7.6 Dialogic SR 6.0 DVD.

1. Initiate a graceful shutdown of WatchDog on the VCS/IPCS. If calls are stuck and shutdown has not occurred, you can initiate an ungraceful shutdown.
2. Install GDA on the target host as detailed in the *Genesys Voice Platform 7.6 Deployment Guide.*
3. Using the GDT, upgrade the software on the target host to release 7.6.

   The Upgrade GVP Servers screen locates the GVP servers in the network that can be upgraded. The main GDT window should now show the current versions and the new versions of the GVP software that have been copied.

4. Select the target host and click Add to move it in the right window. Click Next.

   This starts the process of transferring the software to the target host and then upgrading to release 7.6.

5. Click Finish when the upgrade is complete.

6. Restart WatchDog and move five percent of the existing call traffic to the upgraded VCS/IPCS, and then monitor the system. If there are no issues, slowly increase the call traffic. If calls are not being processed correctly by the VCS/IPCS, restore the original configuration and contact Genesys Technical Support.

Notes: TTS will not be upgraded for IPCS because it is not needed as a separate process in GVP 7.6, and it is now part of the `Mcu` process.

The IPCS in release 7.6 uses an `Mcu` process instead of the `McuXml` and `TTS_MRCP` processes used in GVP 7.2.x. As each IPCS server is upgraded, in EMPS, under the node corresponding to that server, the `McuXml` node and the `TTS_MRCP` node disappear and an `Mcu` node with `ASR > MRCP` and `ASR > TTS` subnodes appears.

Step 8—Upgrade Hosts with Components that Cannot be Installed Using GDT

1. Uninstall all GVP 7.2.x components on the host using `Add/Remove Programs` from the Control Panel.
2. Install the new components from the GVP 7.6 DVDs by running the setup executable file for each component.

You do not need to reconfigure the components in EMPS because the configuration information is already stored in the migrated EMPS 7.6 LDAP database.

GVP: NE 7.2.x to GVP 7.6

Strategy Overview

- GVP 7.6 only supports Windows 2003. Make sure that you have upgraded your 7.2.x host operating systems to Windows 2003 before starting the migration.
- You cannot upgrade EMPS from release 7.2.x to 7.6 because the provisioning system has completely changed in release 7.6. You must use a new host to install GVP 7.6 EMPS. Using the DMT, migrate the provisioning data from release 7.2.x to release 7.6.
- The Data Migration Tool in EMPS has a Server Mapping feature that can help you move existing customer/application data to a new network. It provides a mapping capability by which old server names can be mapped to new server names, and the data transformation will also change the server names, where applicable. You should use this feature to preserve the configuration of the GVP 7.2.x servers while installing the GVP 7.6 software on new Windows 2003 servers.

Important The source server and target server in the Server Mapping window must have the same combination of components. For example, if the source server has IPCS, PM, and BWM, the target server must only have IPCS, PM, and BWM.

- Make sure that you have a properly functioning GVP 7.2.x network before proceeding with the migration/upgrade. Do not debug existing 7.2.x configurations and migrate to 7.6 at the same time.
- To ensure that you can take calls while the network is being upgraded, use the following sequence:
  - Stop making provisioning changes.
  - Install EMPS 7.6 on a new host, and, using the DMT, migrate the data from the old provisioning system.
  - Upgrade the backup Runtime host(s) to GVP 7.6.
  - Upgrade the primary Runtime host(s) to GVP 7.6.
  - Upgrade the Reporting Server host(s) to GVP 7.6. Run MSSQL scripts to change reporting schema to the new versions.

  Note: During the upgrade of the Reporting Server(s), the IPCSs/VCSs keep the call events data on their local disks and send the data to the upgraded Reporting Server(s) once they come back up.

  - Upgrade IPCM (SSM/H.323 and RM).
  - Upgrade the VCS/IPCS hosts last.

Procedure

Step 1—Do Not Make Provisioning Changes

- Do not provision new applications or change server configurations until the migration is complete or unless required as an explicit step during migration.

Step 2—Load the New Management Information Bases (MIBs)

Note: If no Network Management System (NMS) is deployed, these steps do not apply.

1. If you are using an NMS that receives Simple Network Management Protocol (SNMP) traps from GVP, load the 7.6 GVP MIBs into the NMS before installing any GVP components.
2. If pre-GVP 7.6 MIBs exist on the NMS, overwrite them with the GVP 7.6 MIBs.
3. Check your NMS user guide for instructions about loading the MIBs.

Loading new MIBs ensures that any traps generated by the new GVP 7.6 are represented in your NMS. Refer to the *Genesys Voice Platform 7.6 Deployment Guide* for instructions on how to extract GVP 7.6 MIBs.

Step 3—Install EMPS 7.6

1. Install the 7.6 GDA on the target EMPS server before starting. Specify the GVP 7.6 software location by browsing to the `solution_specific\windows` in the GVP 7.6 DVD images.
2. Using the GDT, install EMPS 7.6 a new server. Refer to the *Genesys Voice Platform 7.6 Deployment Guide* for details.
3. Select the `Upgrade to GVP 7.6` option, and then select the `Install EMPS and upgrade` option to achieve this step. Make sure that you select the `Multi Tenancy` option.

Step 4—Migrate Data from EMPS to EMPS 7.6 Using the DMT

1. To launch DMT on the EMPS 7.6 server, double-click the file `<install directory>DMT\bin\run_dmt.bat`.

   The `Welcome to the GVP Data Migration Tool` screen appears.
2. Click `Next`.

   The `Version Selection` screen appears.
3. Select the source installation type.
4. Select `EMPS` and `version (7.2 MR1)` from the drop down list. Click `Next`.

   The `EMPS Source Configuration` screen appears.
5. In the `EMPS Host` text box, enter the hostname or IP address of the source EMPS installation. Click `Next`.

   The `EMPS Destination Configuration` screen appears.
6. In the `EMPS Host` text box, enter the Fully Qualified Domain Name (FQDN) of the EMPS 7.6 host. The username of `admin` is already entered. In the `Password` text box, enter the login password for EMPS 7.6 (typically the word `password`). Click `Next`.

   The `Migration Options` screen appears.
7. From the list of configuration elements, select the elements to migrate:
   - `Resellers/Customer/Application Data`
   - `Servers`
   - `Groups`
   - `DID Groups`
   - `Scheduled Tasks`
   - `Custom Data`

   The executable file `SCAImport.exe` migrates the data. If the executable cannot be found in the default path, a message appears, and the DMT prompts for the location of the file.

Click Browse for SCAImport and select <EMPS install directory>\bin\SCA.exe.

Click Next.

The Dispenser Information screen appears.

8. In the Dispenser Host text box, enter the FQDN of the Dispenser host. In the Dispenser Port text box, enter the port (80) of the Dispenser host. Click Next.

   The Confirm Settings screen appears.

9. Review the selections. Click Back if you need to make changes. Click Next.

   The Start button appears.

10. Click Start.

    Do not click Cancel at any time to stop the data migration. When the data migration is complete, click Finish.

    After data migration, the EMPS will not reflect the correct format of the field names. All of the migrated field names in EMPS will be preceded with an exclamation mark (!) because the 7.6 template has not yet been assigned to the specific server. Once the upgrade is complete and the 7.6 templates are assigned, the EMPS field names appear as expected.

    Although the GDT configures most parameters, you are responsible for ensuring that specific servers are configured correctly after upgrading. For example, if you want to use a different Dispenser, you must correct the Dispenser address.

Step 5—Upgrade the Backup EMS Runtime Host(s)

EMS Runtime hosts are the hosts running Bandwidth Manager (BWM), Policy Manager (PM), and IVR Server Client (also known as GQA).

In-service upgrade requires a backup EMS runtime host.

If you do not have a backup EMS runtime host and you do not want in-service upgrade, you can skip this step.

Continue with the GDT to upgrade the servers, starting with the backup EMS Runtime host. If you exited the GDT, you can invoke it again and select the Upgrade to GVP 7.6 radio button. On the next screen, select Use Existing EMPS to upgrade.

1. Initiate a graceful shutdown of WatchDog on the backup EMS Runtime hosts. If calls are stuck and shutdown has not occurred, you can initiate an ungraceful shutdown.
2. Install GDA on the target host as detailed in the *Genesys Voice Platform 7.6 Deployment Guide.*
3. Using the GDT, upgrade the host with backup BWM, PM, and IVR Server Client/GQA.

The Upgrade GVP Servers screen locates the GVP servers in the network that can be upgraded. The main GDT window should now show the current versions and the new versions of the GVP software that have been copied.

4. Select the EMS Runtime (backup) target host and click Add to move it in the right window. Click Next.

   This starts the process of transferring the software to the target host and then upgrading to release 7.6.

5. Click Finish when the upgrade is complete.
6. Restart WatchDog on the EMS Runtime host.
7. Regenerate the customer provisioning information for all customers by selecting Edit Customer for each customer in EMPS, and then clicking Save.
8. Restart WatchDog on the backup EMS Runtime host(s).
9. Move five percent of the existing call traffic to the backup EMS Runtime, and then monitor the system. If there are no issues, slowly increase the call traffic to 100 percent. If calls are not being processed correctly by the backup EMS Runtime, restore the original configuration and contact Genesys Technical Support.

Step 6—Upgrade Primary EMS Runtime Host(s)

Continue with the GDT to upgrade the primary EMS Runtime hosts. If you exited the GDT, you can invoke it again and select the Upgrade to GVP 7.6 radio button. On the next screen, select Use Existing EMPS to upgrade.

1. Initiate a graceful shutdown of WatchDog on the primary EMS Runtime hosts. If calls are stuck and shutdown has not occurred, you can initiate an ungraceful shutdown.
2. Install GDA on the target host as detailed in the *Genesys Voice Platform 7.6 Deployment Guide.*
3. Using the GDT, upgrade the host with primary BWM, PM, and IVR Server Client/GQA.

   The Upgrade GVP Servers screen locates the GVP servers in the network that can be upgraded. The main GDT window should now show the current versions and the new versions of the GVP software that have been copied.

4. Select the EMS Runtime (primary) target host and click Add to move it in the right window. Click Next.

   This starts the process of transferring the software to the target host and then upgrading to release 7.6.

5. Click Finish when the upgrade is complete.
6. Restart WatchDog on the EMS Runtime host.

7. Regenerate the customer provisioning information for all customers by selecting `Edit Customer` for each customer in EMPS, and then clicking `Save`.
8. Restart WatchDog on the primary EMS Runtime host(s).
9. Move five percent of the existing call traffic to the backup EMS Runtime, and then monitor the system. If there are no issues, slowly increase the call traffic to 100 percent. If calls are not being processed correctly by the backup EMS Runtime, restore the original configuration and contact Genesys Technical Support.

Step 7—Upgrade Backup IPCM Host

In-service upgrade requires a backup IPCM host.

If you do not have a backup IPCM host and you do not want in-service upgrade, you can skip this step.

If you do not have a backup IPCM host and you want in-service upgrade, you must first install and configure a backup IPCM host by following the instructions in the *Genesys Voice Platform 7.2 Deployment Guide*.

Continue with the GDT to upgrade other servers, starting with the IPCM backup host. If you exited the GDT, you can invoke it again and select the `Upgrade to GVP 7.6` radio button. On the next screen, select `Use Existing EMPS to upgrade`.

1. Initiate a graceful shutdown of WatchDog on the backup IPCM. If calls are stuck and shutdown has not occurred, you can initiate an ungraceful shutdown.
2. Install GDA on the target host as detailed in the *Genesys Voice Platform 7.6 Deployment Guide.*
3. Using the GDT, install GVP 7.6 Resource Manager (RM) and GVP 7.6 SIP Session Manager/H.323 Session Manager (SSM/HSM).

   The `Upgrade GVP Servers` screen locates the GVP servers in the network that can be upgraded. The main GDT window should now show the current versions and the new versions of the GVP software that have been copied.
4. Select the IPCM (backup) target host and click `Add` to move it in the right window. Click `Next`. This starts the process of transferring the software to the target host and then upgrading to release 7.6.
5. Click `Finish` when the upgrade is complete.

Note: A message may appear during the uninstallation of SSM that states `TlraSessionMgr error - Application error while referencing memory at 0x00000`. You can ignore this error, but do not click `OK` until the upgrade is complete.

6. Restart WatchDog on the IPCM. Restart all IPCSs in the network to register them with the backup IPCM.
7. Move five percent of the existing call traffic to the backup IPCM, and then monitor the system. If there are no issues, slowly increase the call traffic to 100 percent. If calls are not being processed correctly by the backup IPCM, restore the original configuration and contact Genesys Technical Support.

Step 8—Upgrade Primary IPCM Host

Continue with the GDT to upgrade the primary IPCM host. If you exited the GDT, you can invoke it again and select the `Upgrade to GVP 7.6` radio button. On the next screen, select `Use Existing EMPS to upgrade.`

1. Initiate a graceful shutdown of WatchDog on the primary IPCM host. If calls are stuck and shutdown has not occurred, you can initiate an ungraceful shutdown.
2. Install GDA on the target host as detailed in the *Genesys Voice Platform 7.6 Deployment Guide.*
3. Using the GDT, install GVP 7.6 Resource Manager (RM) and GVP 7.6 SIP Session Manager/H.323 Session Manager (SSM/HSM).

   The `Upgrade GVP Servers` screen locates the GVP servers in the network that can be upgraded. The main GDT window should now show the current versions and the new versions of the GVP software that have been copied.
4. Select the IPCM (primary) target host and click `Add` to move it in the right window. Click `Next`.

   This starts the process of transferring the software to the target host and then upgrading to release 7.6.
5. Click `Finish` when the upgrade is complete.

> **Note:** A message may appear during the uninstallation of SSM that states `TlraSessionMgr error - Application error while referencing memory at 0x00000`. You can ignore this error, but do not click `OK` until the upgrade is complete.

6. Restart WatchDog on the IPCM. Restart all IPCSs in the network to register them with the primary IPCM.
7. Move five percent of the existing call traffic to the primary IPCM, and then monitor the system. If there are no issues, slowly increase the call traffic to 100 percent. If calls are not being processed correctly by the primary IPCM, restore the original configuration and contact Genesys Technical Support.

Step 9—Upgrade Reporting Server(s)

Continue with the GDT to upgrade the Reporting Server(s). If you exited the GDT, you can invoke it again and select the `Upgrade to GVP 7.6` radio button. On the next screen, select `Use Existing EMPS to upgrade.`

1. Initiate a graceful shutdown of WatchDog on the EventC host. If calls are stuck and shutdown has not occurred, you can initiate an ungraceful shutdown.

   Note: While the WatchDog on EventC is down, all of the IPCSs/VCSs will be holding their events data on their local hard drive. This is expected behavior.

2. Install GDA on the target host as detailed in the *Genesys Voice Platform 7.6 Deployment Guide.*
3. Using the GDT, install the Reporting host components.

   The `Upgrade GVP Servers` screen locates the GVP servers in the network that can be upgraded. The main GDT window should now show the current versions and the new versions of the GVP software that have been copied.
4. Select the target host and click `Add` to move it in the right window. Click `Next.`

   This starts the process of transferring the software to the target host and then upgrading to release 7.6.
5. Click `Finish` when the upgrade is complete.
6. Login in as `sa` into the host with the SQL Server databases for the Reporting components.
7. Using SQL Query analyzer, run the following SQL scripts from the `<install_folder>\CN\sqlscripts\mssql\EventC\7.6.0` folder against the appropriate databases to update the tables schema from 7.2.x to 7.6.
   - `reporter_upgrade_7_6_0_from_7_2_0.sql`
   - `repdwh_upgrade_7_6_0_from_7_2_0.sql`
   - `peaks_upgrade_7_6_0_from_7_0_3.sql`
   - `collector_upgrade_7_6_0_from_7_2_0.sql`
8. Restart Watchdog on EventC and the Reporter hosts (if different). In approximately three to five minutes, you should begin to see the call events start arriving from the IPCSs/VCSs that they had been holding.

Step 10—Upgrade IPCS/VCS Host(s)

Continue with the GDT to upgrade the VCS/IPCS hosts one at a time. If upgrading a VCS, first upgrade the Dialogic software to the latest version for GVP 7.6 by uninstalling the older Dialogic software, and then installing the Dialogic software using the GVP 7.6 Dialogic SR 6.0 DVD.

1. Initiate a graceful shutdown of WatchDog on the VCS/IPCS. If calls are stuck and shutdown has not occurred, you can initiate an ungraceful shutdown.
2. Install GDA on the target host as detailed in the *Genesys Voice Platform 7.6 Deployment Guide.*
3. Using the GDT, upgrade the software on the target host to release 7.6.

   The `Upgrade GVP Servers` screen locates the GVP servers in the network that can be upgraded. The main GDT window should now show the current versions and the new versions of the GVP software that have been copied.
4. Select the target host and click `Add` to move it in the right window. Click `Next`.

   This starts the process of transferring the software to the target host and then upgrading to release 7.6.
5. Click `Finish` when the upgrade is complete.
6. Restart WatchDog and move five percent of the existing call traffic to the upgraded VCS/IPCS, and then monitor the system. If there are no issues, slowly increase the call traffic. If calls are not being processed correctly by the VCS/IPCS, restore the original configuration and contact Genesys Technical Support.

Notes: TTS will not be upgraded for IPCS because it is not needed as a separate process in GVP 7.6, and it is now part of the `Mcu` process.

The IPCS in release 7.6 uses an `Mcu` process instead of the `McuXml` and `TTS_MRCP` processes used in GVP 7.2.x. As each IPCS server is upgraded, in EMPS, under the node corresponding to that server, the `McuXml` node and the `TTS_MRCP` node disappear and an `Mcu` node with `ASR > MRCP` and `ASR > TTS` subnodes appears.

Step 11—Upgrade Hosts with Components that Cannot be Installed Using GDT

1. Uninstall all GVP 7.2.x components on the host using `Add/Remove Programs` from the Control Panel.
2. Install the new components from the GVP 7.6 DVDs by running the setup executable file each component.

You do not need to reconfigure the components in EMPS because the configuration information is already stored in the migrated EMPS 7.6 LDAP database.

GVP 7.0.3 to GVP 7.6

Although a direct upgrade/migration from GVP 7.0.3 to GVP 7.6 is supported, Genesys recommends that you first upgrade/migrate to GVP 7.2.x, and then upgrade/migrate to GVP 7.6.

You can still use the following strategy to upgrade/migrate directly from GVP 7.0.3 to GVP 7.6:

- Make sure that you have upgraded third-party software required by GVP 7.6 before upgrading the GVP software.
- Follow the same procedures as detailed in the section "GVP 7.2.x to GVP 7.6" on page 1308.
- Make appropriate adjustments in the scripts to be run. For example, the following EventC SQL scripts must be replaced by the appropriate scripts for 7.0.3:
  - `reporter_upgrade_7_6_0_from_7_2_0.sql`
  - `repdwh_upgrade_7_6_0_from_7_2_0.sql`
  - `peaks_upgrade_7_6_0_from_7_0_3.sql`
  - `collector_upgrade_7_6_0_from_7_2_0.sql`

GVP 6.5.x to GVP 7.6

Although a direct upgrade/migration from GVP 6.5.x to GVP 7.6 is supported, Genesys recommends that you first upgrade/migrate to GVP 7.2.x, and then upgrade/migrate to GVP 7.6.

You can still use the following strategy to upgrade/migrate directly from GVP 6.5.x to GVP 7.6:

- GVP 6.5.x is only supported on Windows 2000 server, and GVP 7.6 is only supported on Windows 2003 server. Therefore, it is not possible to upgrade/migrate existing GVP 6.5.x servers to GVP 7.6 servers because you cannot change the underlying operating system from Windows 2000 to Windows 2003 while maintaining the GVP software. You must install GVP 7.6 software on new servers running Windows 2003 server software.
- The Data Migration Tool in EMPS has a Server Mapping feature that can help you move existing customer/application data to a new network. It provides a mapping capability by which old server names can be mapped to new server names, and the data transformation will also change the server names, where applicable. You should use this feature to preserve the configuration of the GVP 6.5.x servers while installing the GVP 7.6 software on new Windows 2003 servers.

Important The source server and target server in the Server Mapping window must have the same combination of components. For example, if the source

server has IPCS, PM, and BWM, the target server must only have IPCS, PM, and BWM.

The proper sequence to do this is:

- Install GVP 7.6 EMPS on a new Windows 2003 server.
- Run the Data Migration Tool on the new Windows 2003 server that will host the 7.6 EMPS, to migrate the data from GVP 6.5.x provisioning system to GVP 7.6 EMPS. Use the Server Mapping option for using new servers.
- Install release 7.6 software on non-EMPS GVP servers that have Windows 2003 installed on them.

- Make sure that you have upgraded third-party software required by GVP 7.6 before upgrading the GVP software.
- Follow the same procedures as detailed in the section "GVP 7.2.x to GVP 7.6" on page 1308; however, use the Server Mapping feature in the Data Migration Tool and install the new GVP 7.6 software manually (see the *Genesys Voice Platform 7.6 Deployment Guide* for instructions on how to manually install the components).
- Make appropriated adjustments in the scripts to be run. For example, the following EventC SQL scripts must be replaced by the appropriate scripts for 6.5.x:
  - `reporter_upgrade_7_6_0_from_7_2_0.sql`
  - `repdwh_upgrade_7_6_0_from_7_2_0.sql`
  - `peaks_upgrade_7_6_0_from_7_0_3.sql`
  - `collector_upgrade_7_6_0_from_7_2_0.sql`

Chapter

64 Upgrading to Genesys Voice Platform 7.5

This chapter discusses the procedures and order for upgrading to Genesys Voice Platform (GVP) 7.5.

Note: The conventions used in this chapter are:

- *Upgrade*—refers to replacing previous versions of GVP software with GVP 7.5 software.
- *Migrate*—refers to migrating Voice Portal Manager (VPM) data from Genesys Voice Platform: Enterprise Edition (GVP: EE) or migrating Element Management Provisioning System (EMPS) data from Genesys Voice Platform: Network Edition (GVP: NE) to the 7.5 EMPS.

This chapter includes the following sections:

Considerations when Migrating to Genesys Voice Platform 7.5

- Non-Media Resource Control Protocol (MRCP) Automatic Speech Recognition (ASR) and Text-to-Speech (TTS) are no longer supported on GVP 7.5. You must upgrade your speech engines to MRCP compliant versions.
- Applications using earlier speech engines may need to be rewritten or at least re-tuned, unless they were using MRCP already.
- GVP 7.5 supports VoiceXML 2.1 (PR) and VoiceXML 2.0 (R) standards. Applications following earlier versions of VoiceXML need to be upgraded.
- It is possible to migrate directly to GVP 7.5 from VWAP 6.5.4, GVP: EE 6.5.5, GVP: DE 6.5.4, GVP: EE 7.0.2, GVP: EE 7.0.3, GVP: NE 7.0.3, GVP: DE 7.0.3, GVP: EE 7.2, GVP: NE 7.2, and GVP: DE 7.2 without going through any intermediate steps. However, it is not possible to migrate from versions earlier than VWAP 6.5.4, GVP: EE 6.5.5 and GVP: DE 6.5.4 to GVP 7.5.
- The GVP: EE 7.2 Solution Installer allows automated migration of software and configuration of GVP: EE software and features. See Chapter 66, “Migration for Genesys Voice Platform: Enterprise Edition,” on page 1383 for details. However, GVP: NE and GVP: DE migration is completely manual.
- Genesys Voice Platform Studio 7.5 allows automatic migration of applications written with Studio 6.5.4, Studio 6.5.5, Studio 7.0.3, and Studio 7.2. This includes migration from VoiceXML 2.0 PR standard to VoiceXML 2.1, but does NOT include migration of ASR/TTS engine specific grammars/TTS to Speech Recognition Grammar Specification (SRGS)/Speech Synthesis Markup Language (SSML) standards-based applications needed to work with MRCP. The changing of grammars and TTS tags to be compliant with the new MRCP engines has to be done manually. For more details see Chapter 68, “Migration for Genesys Voice Platform: Studio,” on page 1403.

Overview

The sequence for performing a GVP upgrade preserves your previous EMPS or VPM configurations; however, make sure that you back up existing configuration information to facilitate reconfiguration after upgrading, and in case you must roll-back the upgrade. The sequence for upgrading is:

1. Install EMPS 7.5. For more information, see “EMPS” on page 1330.
2. Perform data migration of VPM or EMPS data to the 7.5 EMPS. For more information, see “Migrating Data” on page 1331.

3. Upgrade the software. For more information, see "Upgrading Components" on page 1339.

Note: Upgrading to GVP 7.5 must be performed only by qualified professionals with extensive knowledge of the GVP system. Contact your Genesys representative for specific guidance and assistance with your upgrade strategy. With the assistance of your Genesys representative, you must create a plan for the upgrade/install, and you must customize the upgrade steps. Each customer will have a unique plan for upgrading/installing, according to the configuration of their system.

For more information about GVP 7.5, see the GVP 7.5 Release Notes found on the Genesys Technical Support website at http://genesys.com/support.

GVP Deployment Tool

You must use one of the following two methods to upgrade GVP: EE or GVP: NE/Voice Web Application Platform (VWAP):

- GVP Deployment Tool (GDT)—This tool upgrades GVP software and configures it in the 7.5 EMPS. Using the GDT saves time and keystrokes, and reduces the likelihood of mistakes. This chapter assumes that you are using the GDT. For more information about the GDT, see Chapter 5 in the *Genesys Voice Platform 7.5 Deployment Guide*.

  Note: The GDT will not configure the GVP components if they are upgraded from a previous version.

- Manual upgrade—For any component to be upgraded by a manual installation, you must first uninstall all of the prior software versions. You must then manually install and configure the components.

Upgrading GVP to GVP 7.5

The process to upgrade GVP: EE or GVP: NE/VWAP is identical. The GDT removes the previous versions of the software, and then installs and configures GVP 7.5. The GVP: NE/VWAP is a much larger upgrade that requires special considerations. For more information about these considerations, see "Upgrade Considerations" on page 1350.

Preparing to Upgrade

Before upgrading your GVP software, make sure that all of the GVP components work correctly under your current release. All components must be running the Generally Available (GA) versions. For this upgrade, post-GA

hot fixes are optional. Do not attempt to upgrade a non-working GVP system to GVP 7.5, because it might be difficult to get the 7.5 GVP system to operate.

Component Compatibility

Some of the GVP component names have changed between prior releases of GVP and GVP 7.5. Table 229 lists these name changes.

Table 229: Component Compatibility

GVP Pre 7.5 Components	GVP 7.5 Components
Voice Web Manager (VWM)	Element Management System (EMS)
Genesys Queue Adapter (GQA)	IVR Server Client
Voice Portal Manager (VPM)	Element Management Provisioning System (EMPS)
Element Management Provisioning System (EMPS)	Element Management Provisioning System (EMPS)
Voice Web Manager Call Manager (VWCM)	Voice Platform Resource Manager (RM) Voice Platform SIP Session Manager (SSM) Voice Platform H.323 Session Manager (HSM) **Note:** These components are referred to as IP Call Manager (IPCM).
Voice Web Voice Communication Server (VCS)	Voice Platform Voice Communication Server (VCS)
Voice Web IP Communication Server (IPCS)	Voice Platform IP Communication Server (IPCS)
Voice Web Text-To-Speech (TTS)	Voice Platform Text-to-Speech (TTS)

Upgrade Strategy

This section describes the general strategy for an upgrade. The specific upgrade instructions are found in “Upgrading Components” on page 1339.

Step 1—Load the New MIBs

If you are using a Network Management System (NMS) that receives Simple Network Management Protocol (SNMP) traps from GVP, load the 7.5 GVP Management Information Bases (MIBs) into the NMS before installing any

GVP components. Consult your NMS user guide for instructions on loading the MIBs.

Loading new MIBs ensures that any traps generated by the new GVP 7.5 are represented in your NMS. See Appendix B in the *Genesys Voice Platform 7.5 Deployment Guide* for instructions on how to extract GVP 7.5 MIBs. If pre-GVP 7.5 MIBs exist on the NMS, overwrite them with the GVP 7.5 MIBs.

Note: If no NMS is deployed, this step does not apply.

Step 2—Upgrade EMPS

For GVP: NE, using the GDT, install EMPS on a new server, and then perform a data migration.

For GVP: EE, using the GDT, install EMPS to replace the VPM, either on a new server or on an existing VPM, and then perform a data migration.

For more information about EMPS, see "EMPS" on page 1330.

Step 3—Upgrade the EMS Components

Genesys recommends that you upgrade the EMS components in the order that follows. This enables you to verify the operation of each component, and minimizes the impact on existing calls. You must run the GDT multiple times to achieve an ordered update.

1. Bandwidth Manager (BWM)—During the upgrade of BWM, the VCS sends the required available files instead of waiting for BWM to schedule the transfers. For more information, see "Upgrading Bandwidth Manager" on page 1343.
2. Policy Manager (PM)—The PM controls customer and application port utilization. If the PM is not available, the calls will be accepted after the primary (and backup, if provisioned) PM fails to respond. This affects control of port utilization and real time reporting. For more information, see "Upgrading Policy Manager" on page 1343
3. Telera Queue Adapter (TQA)—Upgrade to GVP 7.5 is not available.
4. Genesys Queue Adapter (GQA) and/or Cisco Queue Adapter (CQA)—You can upgrade these components one at a time by directing traffic to the upgraded GQA and/or CQA. For more information, see "Upgrading IVR Server Client" on page 1343, and "Upgrading the Cisco Queue Adapter" on page 1344.

   The queue adapters interface with Computer Telephony Integration (CTI). If a call cannot communicate with the adapters, the voice application generates an `error.com.telera.queue` error. If the error is not handled, the call will be dropped. All existing calls will also be dropped.

> **Note:** IVR Server Client and GQA are different names for the same component.

5. Outbound Notification (OBN)—Outbound notification cannot be performed during the upgrade. For more information, see "Upgrading Outbound Notification" on page 1344.
6. ASR Log Manager—File capture and transfer from VCS/IPCS must not be enabled during the upgrade. For more information, see "Upgrading ASR Log Manager Components" on page 1344.

Step 4—Upgrade the Voice Components

1. Voice over IP (VoIP): IP Call Manager (IPCM) and IP Communication Server (IPCS)—For more information, see "Upgrading IP Call Manager" on page 1340 and "Upgrading IPCS" on page 1340.
2. Time Division Multiplexing (TDM): Voice Communication Server (VCS)—For more information, see "Upgrading VCS" on page 1339.

Step 5—Upgrade the Reporting Components

1. EventC, Reporter, and Unified Login Server—For more information, see "Upgrading EventC and Reporting" on page 1341.
2. Network Monitor—For more information see, "Upgrading Network Monitor Database" on page 1345.

EMPS

GVP 7.5 uses the EMPS to provide configuration and provisioning parameters. In prior releases, GVP: EE used VPM, GVP: NE used EMPS, and VWAP used VWPS.

In GVP 7.5, EMPS works differently than it did in previous releases. Prior to GVP 7.5, EMPS stored all of the necessary information in an LDAP Directory Server. When a GVP: NE server required startup information, it retrieved configuration parameters from that LDAP Directory Server. GVP 7.5 servers must connect to EMPS to retrieve configuration parameters.

> **Note:** SunOne Directory Server and OpenLDAP are supported in GVP 7.5.

If you are upgrading from GVP: NE, you must install EMPS as multi-tenant on a new server.

If you are upgrading from GVP: EE, Genesys recommends that you install EMPS as single-tenant on a new server; but it can be installed on an existing VPM server. If the existing VPM system has other GVP components

(including Dialogic), you must uninstall them, using Windows Add/Remove, before installing EMPS.

- Using the GDT, install the 7.5 EMPS on a new server. For more information on how to install EMPS, see the *Genesys Voice Platform 7.5 Deployment Guide*.

Migrating Data

The Data Migration Tool (DMT) is a wizard that migrates provisioning data from a pre-7.5 GVP (NE or EE) EMPS or VPM, to 7.5 EMPS. Run the data migration after the installation of 7.5 EMPS, and before you upgrade any software.

This section provides instructions on how to use the Data Migration Tool (DMT).

Using the Data Migration Tool

1. To launch DMT on the EMPS 7.5 server, double-click the file `<install dirctory>\bin\run_dmt.bat`. The `Welcome to the GVP Data Migration Tool` screen appears (see Figure 36).

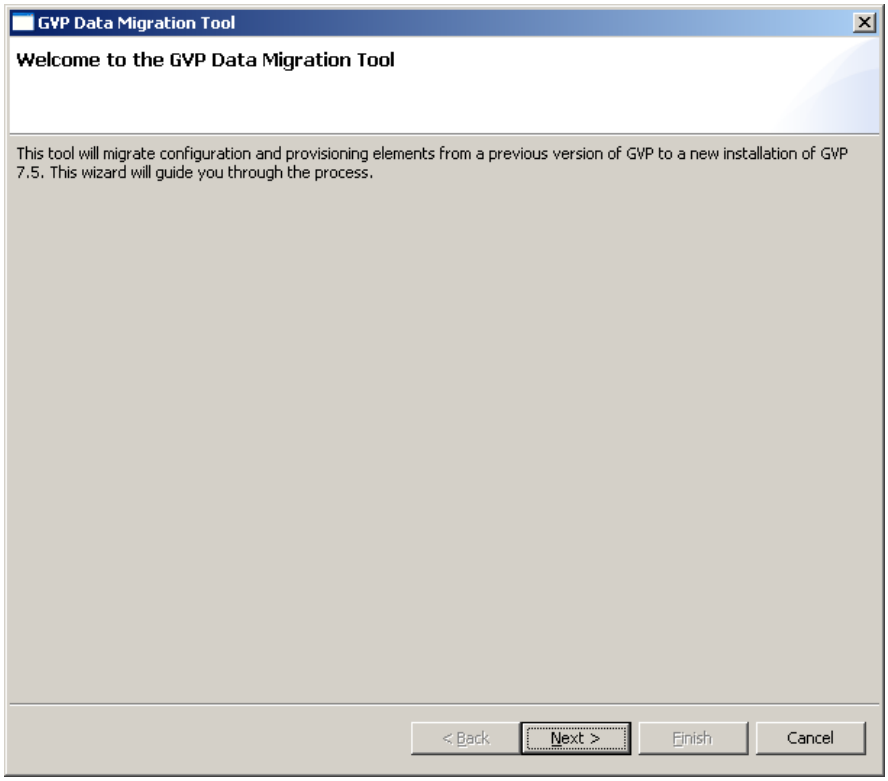

Figure 36: GVP Data Migration Tool Welcome Screen

2. Click `Next`. The `License Agreement` screen appears.
3. Click `Yes` to agree with the license agreement, and then click `Next`. The `Version Selection` screen appears (see Figure 37).

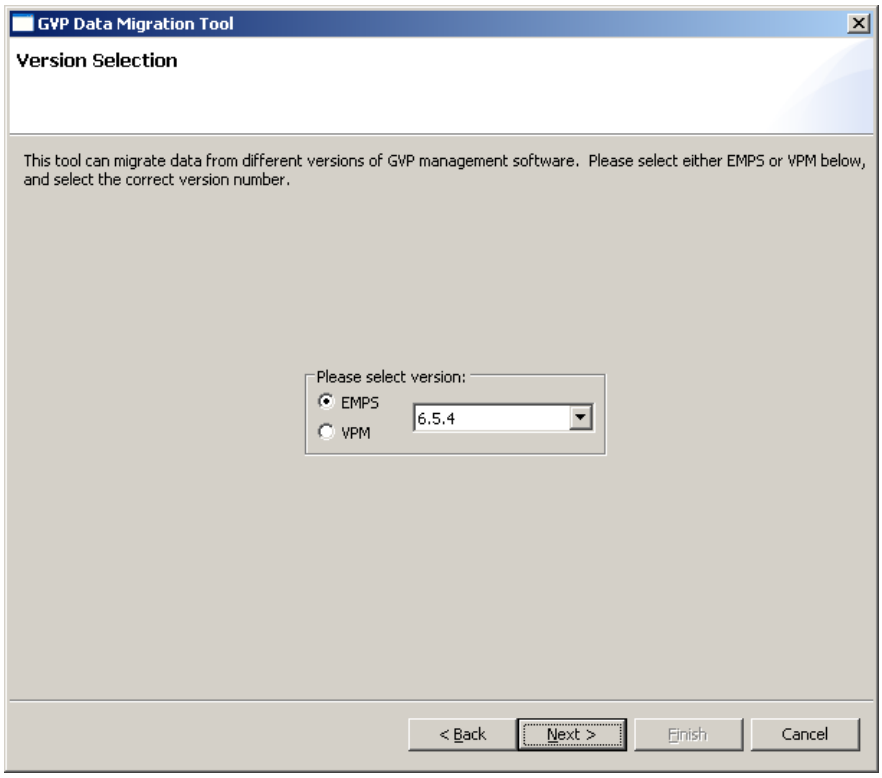

Figure 37: GVP Data Migration Tool Version Selection Screen

4. Select the source installation type. Select `EMPS` if your current working release is GVP: NE, or select `VPM` if your current working release is GVP: EE.
5. From the drop-down list, select your current source version number.
6. Click `Next`.

If EMPS is selected, the EMPS Source Configuration screen appears (see Figure 38).

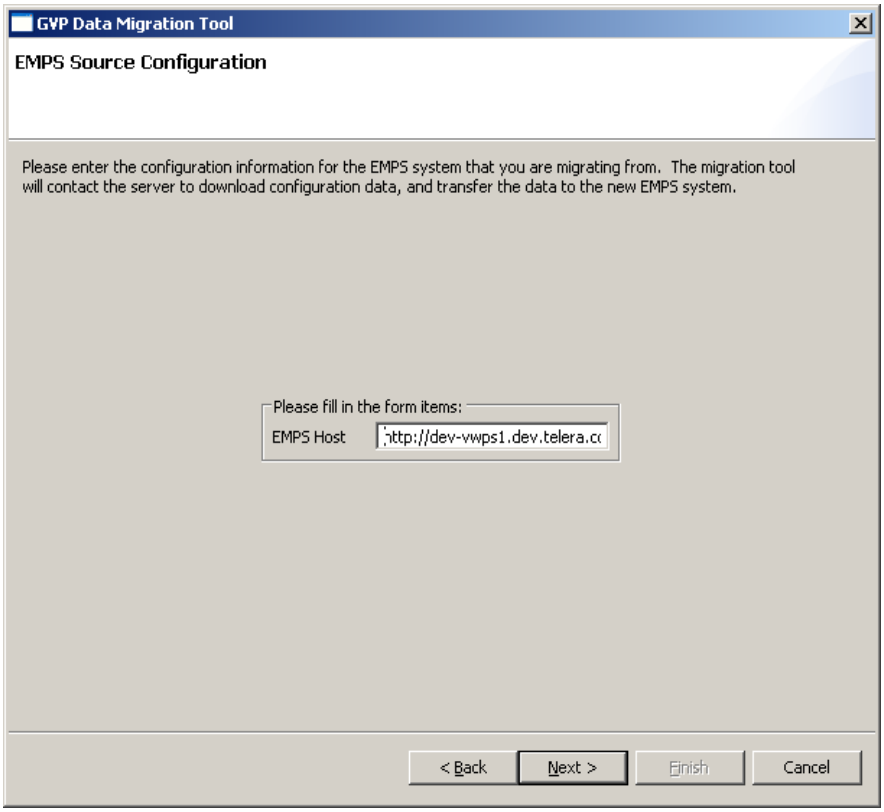

Figure 38: GVP Data Migration Tool EMPS Source Configuration Screen

(Step 6. cont'd) EPMS Source Configuration

a. In the EMPS Host text box, enter the hostname or IP address of the source EMPS installation.

b. Click Next.

If VPM is selected, the VPM Source Configuration screen appears (see Figure 39).

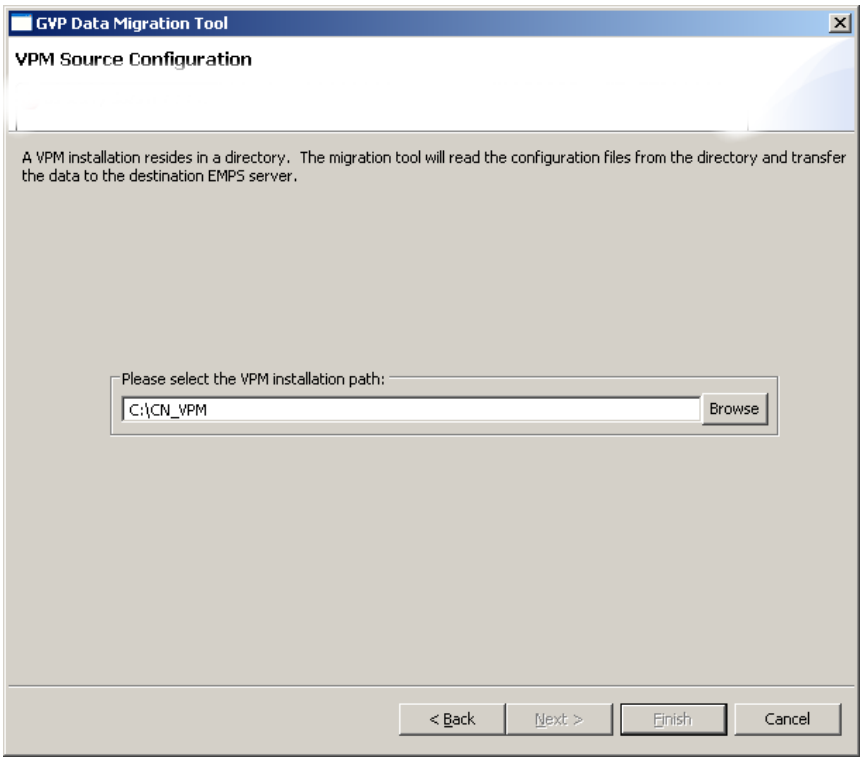

Figure 39: GVP Data Migration Tool VPM Source Configuration Screen

(Step 6. cont'd) VPM Source Configuration

a. Click `Browse` to select the VPM installation path. This can be a mapped drive, a local drive if EMPS is already installed on the VPM server, or it can be a copy of the `cn_vpm` folder.

b. Click `Next`.

The `EMPS Destination Configuration` screen appears (see Figure 40).

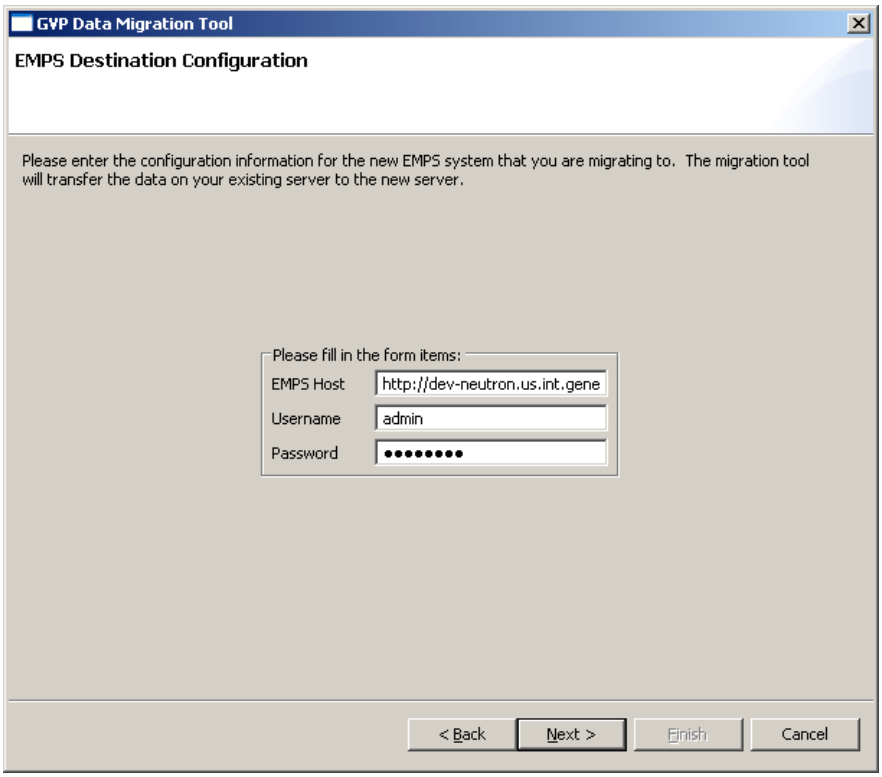

Figure 40: GVP Data Migration Tool EMPS Destination Configuration Screen

(Step 6. cont'd) EMPS Destination Configuration

a. In the `EMPS Host` text box, enter the Fully Qualified Domain Name (FQDN) of the EMPS 7.5 host.

b. In the `Username` text box, enter the login username for EMPS 7.5.

c. In the `Password` text box, enter the login password for EMPS 7.5.

d. Click `Next`.

The `Migration Options` screen appears (see Figure 41).

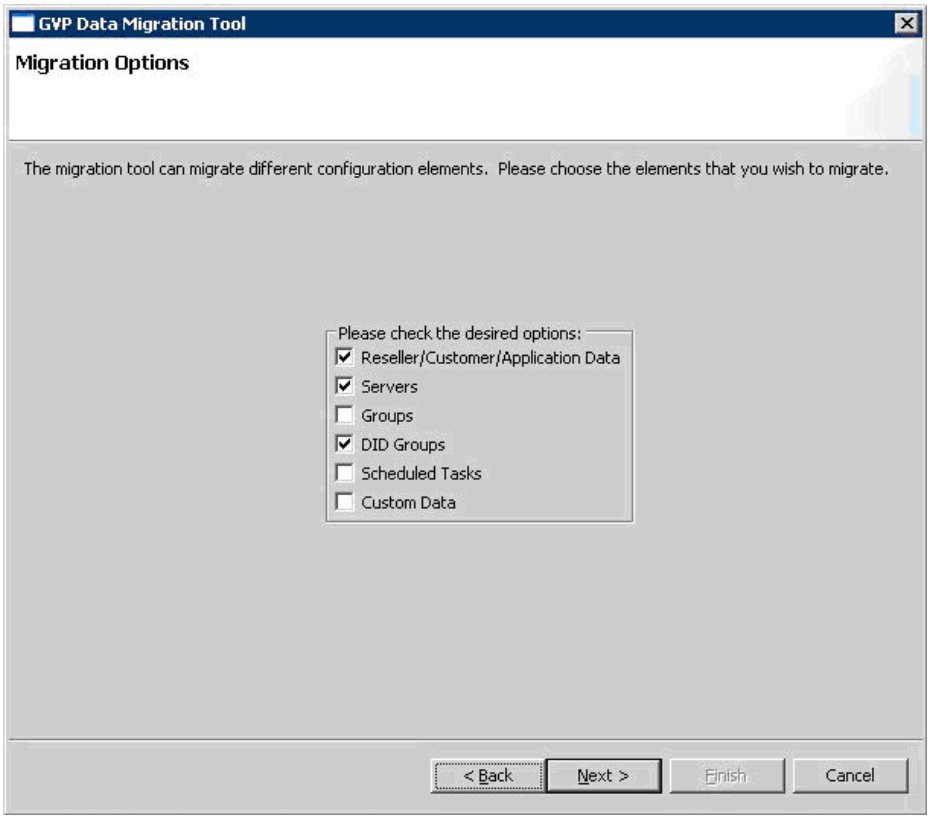

Figure 41: GVP Data Migration Tool Migration Options Screen

7. From the list of configuration elements, select the elements to migrate.
   - `Resellers/Customer/Application Data`
   - `Servers`
   - `Groups`
   - `DID Groups`
   - `Scheduled Tasks`
   - `Custom Data`

   Note: If you are migrating data from VPM, only the `Reseller/Customer/Application Data` and `Servers` elements will be available for selection.

   The executable file `SCAImport.exe` migrates the data. If it cannot be found in the default path, a message appears, and the DMT prompts for the location of the file. Click `Browse for SCAImport` and select `<EMPS install directory>\bin\SCA.exe`.

8. Click `Next`. The `Dispenser Information` screen appears (Figure 42).

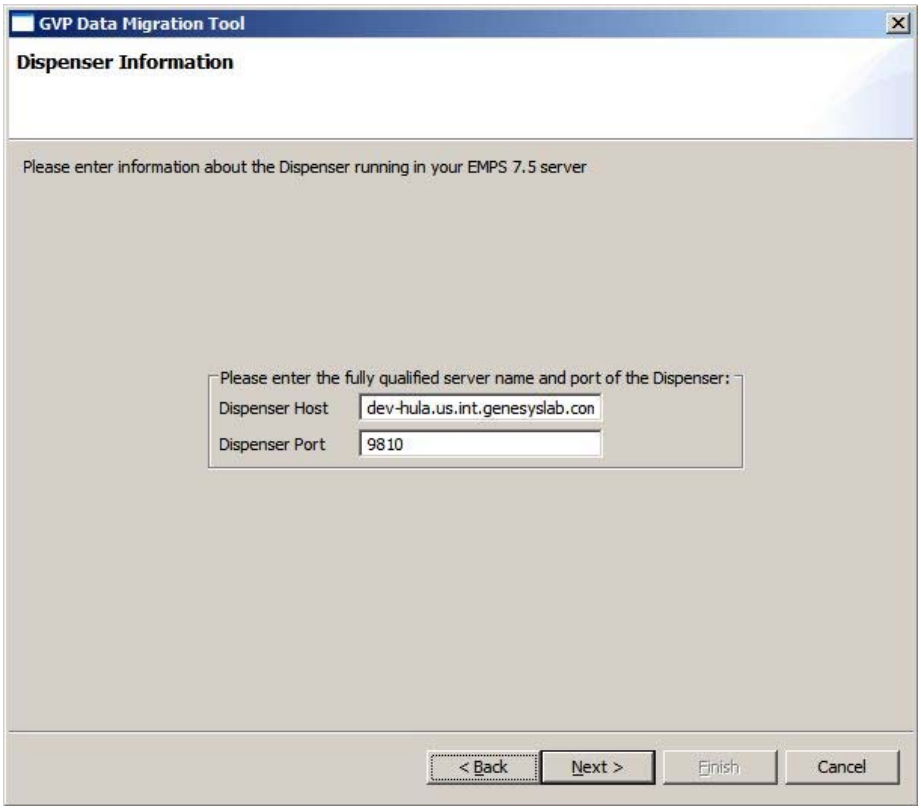

Figure 42: GVP Data Migration Tool Dispenser Information Screen

9. In the `Dispenser Host` text box, enter the FQDN of the Dispenser host.
10. In the `Dispenser Port` text box, enter the port of the Dispenser host.
11. Click `Next`. The `Confirm Settings` screen appears (see Figure 43).

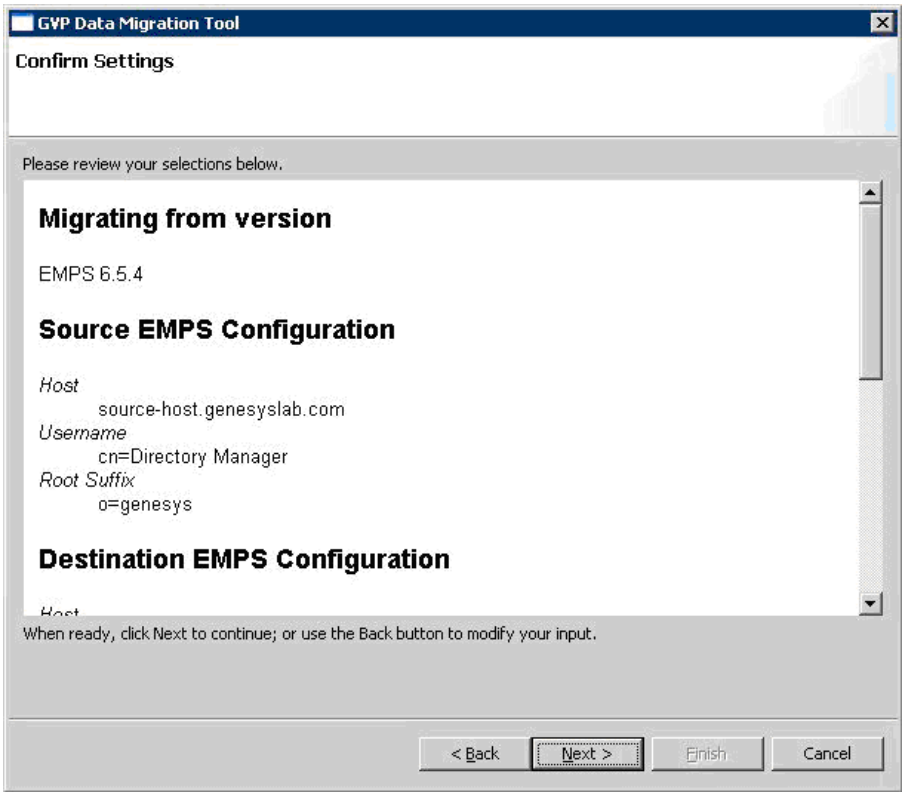

Figure 43: GVP Data Migration Tool Confirm Settings Screen

12. Review the selections. Click `Back` if you need to make changes.
13. Click `Next`. The `Start` button appears.
14. Click `Start`.

> **Note:** You can click `Cancel` at any time to stop the data migration.

15. When the data migration is complete, click `Finish`.

After data migration, the EMPS will not reflect the correct format of the fields. All of the migrated fields in EMPS will be preceded with an exclamation mark because the 7.5 template has not yet been assigned to the specific server. Once the upgrade is complete and the 7.5 templates are assigned, the EMPS fields appear as expected. Although the GDT configures most parameters, you are responsible for ensuring that specific servers are configured correctly after upgrading. For example, if you want to use a different dispenser, you must correct the dispenser address.

Upgrading Components

When upgrading, it is important to note that the GDT upgrades all of the software on a server. Although individual servers can be upgraded one at a time, you cannot choose which components to upgrade. For example, if a GVP 7.2 server has both Policy Manager and EventC installed on it, the GDT upgrades both components to 7.5.

Warning! Genesys recommends that you read this *Upgrading Components* section first, noting the upgrade sequence and procedures before actually performing the upgrade.

Upgrading VCS

Before upgrading VCS, you must first upgrade Dialogic with the latest patches and features. For more information on how to upgrade Dialogic, see the *Genesys Voice Platform 7.5 Deployment Guide*. After Dialogic has been upgraded, you may then upgrade VCS to GVP 7.5 VCS.

Note: If there is only one VCS, it will not be able to take calls during the upgrade process. If there are multiple VCSs, GVP continues to take calls, but at a reduced capacity.

To upgrade multiple VCSs:

1. Select a single VCS to upgrade.

   When upgrading a network with multiple VCSs, Genesys recommends upgrading one VCS and then testing an application before upgrading the entire network of VCSs. If calls are presented to the VCS network in a round-robin method, select one VCS for upgrade. If calls are presented to the VCS network in a first-idle method, select a VCS in the network that will receive some calls, so that the upgrade can be verified.
2. Route calls away from the VCS to be upgraded.

   Before upgrading the target VCS, Genesys recommends that the switch route all calls landing on the target VCS to other VCSs in the network. If this is not done, callers might experience delays when the switch performs automatic hunting to the other VCSs in the network.
3. Using the EMS GUI, gracefully shut down the WatchDog on the VCS machine.
4. Using the GDT, upgrade the VCS. For more information, see the *Genesys Voice Platform 7.5 Deployment Guide*.
5. Place one test call on the upgraded VCS to test the application before routing traffic back to it.

6. Route calls back to the upgraded VCS.
7. Repeat the preceding steps for the remaining VCSs in your network.

Upgrading IP Call Manager

This section describes the steps required to upgrade the IP Call Manager (IPCM) to 7.5.

You must shut down the system in order to upgrade IPCM.

1. To prevent lost calls during the upgrade, make sure that there are no calls in the system.
2. Using the GDT, upgrade the software on the IPCM server(s). For more information, see the *Genesys Voice Platform 7.5 Deployment Guide.*

Note: You cannot test IPCM until at least one IPCS has been upgraded.

For more information about upgrading IPCM while still processing calls, see "Call Manager (SIP)" on page 1357.

Upgrading IPCS

This section describes the steps required to upgrade the IP Communication Server (IPCS) to 7.5.

Notes: SIP Session Manager (SSM) and H.323 Session Manager (HSM) must be upgraded before upgrading IPCS.

If there is only one IPCS, it will not be able to take calls when upgrading. If there are multiple IPCSs, GVP continues to take calls, but at a reduced capacity

1. Select one IPCS to upgrade.

   When upgrading a network with multiple IPCSs, Genesys recommends upgrading one IPCS, and then testing an application before upgrading the entire network of IPCSs. Calls are presented to the IPCS in a round-robin method; therefore, you may select any IPCS in the network to upgrade.
2. Using the EMS GUI, gracefully shut down the WatchDog on the IPCS machine.

   This causes the SSM or HSM to remove all ports associated with the target IPCS being removed from service. No additional calls will be presented to the target IPCS.
3. Using the GDT, upgrade the IPCS. For more information, see the *Genesys Voice Platform 7.5 Deployment Guide*.

   Once IPCS is operational, SSM or HSM automatically start routing calls to it.

IPCS Configuration Updates

4. Apply the following IPCS configuration updates:
   a. The `Default Media Codec` parameter has moved from under the `popgateway` node to the `Mcuxml` node. In order to migrate successfully, you must manually configure the `Default Media Codec` parameter to match the previous setting.
   b. The `Call Status Check Frequency` parameter for IPCS in the `popgateway` section of EMPS has been deprecated. `Call Status Check Frequency` was used to determine if the `Sessions Timers` parameter was to be enabled (set to a value greater than `0`). If enabled, the `Session Timer Interval` would be set to the same value as specified for the `Call Status Check Frequency`.
   c. GVP 7.5 now uses `Enable Session Timers` and `Session Timer Interval` instead of `Call Status Check Frequency`.

      If `Call Status Check Frequency` was a non-zero value before migrating:
      - Select the `Enable Session Timers` check box to enable session timers in GVP 7.5.
      - Set the `Session Timer Interval` (in seconds) to the same value as specified for the `Call Status Check Frequency` parameter.

      If `Call Status Check Frequency` was previously zero, then clear the `Enable Session Timers` check box to disable it.
   d. The `Local Tone Rendering` parameter for IPCS in the `popgateway` section of EMPS has been deprecated. When configuring after migration, use the value of the `Local DTMF Rendering` parameter to set the `Fallback DTMF` mode in GVP 7.5. The following parameter compatibility table shows the differences (see Table 230):

Table 230: Parameter Compatibility

Local DTMF Rendering in Previous Version	Fallback DTMF Mode in 7.5	Differences
RTP using RFC-2833	SIP INFO	SIP INFO will now be used as a backup if RFC 2833 cannot be negotiated.
SIP INFO Msg	SIP INFO	RFC 2833 will now be used if available.
Digitized Inband RTP	Inband	RFC 2833 will now be used if available. DTMF inband will be used only if RFC 2833 cannot be negotiated.

Upgrading EventC and Reporting

The following procedure enables the operator to upgrade from previous versions of GVP/VWAP (source) to GVP 7.5 (destination). You must consult

with a qualified database administrator in order to properly transfer SQL data from one server to another.

1. Make a backup of the following databases:
   - Collector
   - Reporter
   - Reporter Data Warehouse (RepDWH)
   - Peaks
   - UnifiedLogin
2. Stop WatchDog in the EventC server, and then make a backup of all the folders in the data directory `c:\<GVP Install Directory>\data`.
3. Make a backup of the `c:\<GVP Install Directory>\log` for future reference.
4. Replace the backed-up folders to the appropriate places after the upgrade is complete.
5. Using the GDT, upgrade the EventC, and register it with the GVP 7.5 EMPS. For more information, see the *Genesys Voice Platform 7.5 Deployment Guide.*
6. Stop the billing port (Port#=9810/9811) on the EventC server (source). This ensures that the IPCS/VCS can no longer send call events to the EventC server.

Note: The communication servers store these events locally on disk. Ensure that each individual communication server has sufficient disk space to store the call events generated during the cutover period.

During the cutover period, the communication servers send `Billing data send failed` SNMP traps to the Network Management Console.

7. Allow Events Loader on the EventC server (source) to run at least two cycles after the billing port (Port#=9810/9811) has been stopped. This ensures that all pending call-event data files in the `Current` data directory (`\cn\data\current`) are loaded into the SQL database on the old EventC server (source). Verify that there are no files left under the `Current` data directory on the old EventC server (source) before proceeding to the next step.
8. Check for remaining files. If you find any, make a backup of them, and then manually move them to the corresponding directory on the newer installed version. Also, make a backup of the `c:\<GVP Install Directory>\data\archives` and `c:\<GVP Install Directory>\data\exceptions` directories. Manually place them on the corresponding directory of the new upgraded version. Make a backup of the log folder for future reference.

For information about upgrading a standby EventC, see “EventC Standby Configuration” on page 1350.

For information about upgrading the EventC databases, see "Upgrading Databases" on page 1345.

Upgrading Policy Manager

This section describes the step required to upgrade Policy Manager (PM) to 7.5.

Note: The PM server must be taken out of service during the upgrade. Genesys recommends that an additional server be used for a smooth upgrade from the existing PM to the GVP 7.5 PM.

- Using the GDT, upgrade the PM, and register it with GVP 7.5 EMPS. For more information, see the *Genesys Voice Platform 7.5 Deployment Guide*.

For information about upgrading PM while still processing calls, see "Upgrading Policy Manger in Real-Time" on page 1351.

For information about upgrading a primary and a backup PM, see "Upgrading a Primary and Backup Policy Manager" on page 1351.

Upgrading Bandwidth Manager

This section describes the step required to upgrade the Bandwidth Manager (BWM) to 7.5.

- Using the GDT, upgrade the BWM on a new server, and register it with the GVP 7.5 EMPS. For more information, see the *Genesys Voice Platform 7.5 Deployment Guide*.

For information about upgrading BWM while still processing calls, see "Upgrading Bandwidth Manager in Real-Time" on page 1352.

Upgrading IVR Server Client

This section describes the step required to upgrade the IVR Server Client to 7.5.

Note: This component was named Genesys Queue Adapter (GQA) in VWAP 6.5.4.

- Using the GDT, upgrade the IVR Server Client on a new server, and register it with the GVP 7.5 EMPS. For more information, see the *Genesys Voice Platform 7.5 Deployment Guide*.

For information about upgrading IVR Server Client while still processing calls, see "Upgrading IVR Server Client in Real-Time" on page 1353.

For information about upgrading a primary and backup IVR Server Client, see "Upgrading a Primary and Backup IVR Server Client" on page 1353.

Upgrading the Cisco Queue Adapter

This section describes the step required to upgrade the Cisco Queue Adapter (CQA) to 7.5.

Note: The CQA server must be taken out of service during the upgrade. Genesys recommends that an additional server be used for a smooth upgrade from the existing CQA to the GVP 7.5 CQA.

- Using the GDT, upgrade the CQA, and register it with the GVP 7.5 EMPS. For more information, see the *Genesys Voice Platform 7.5 Deployment Guide*.

For information about upgrading CQA while processing calls, see "Upgrading Cisco Queue Adapter in Real-Time" on page 1354.

For information about upgrading a primary and backup CQA, see "Upgrading a Primary and Backup CQA" on page 1355.

Upgrading ASR Log Manager Components

This section describes the steps required to upgrade the Automatic Speech Recognition (ASR) Log Manager components to 7.5.

Note: ASR Log Manager was not supported in GVP 7.0.3 or GVP 7.2. If you are upgrading GVP from GVP: NE 7.x, install the ASR Log Manager components according to the *Genesys Voice Platform 7.5 Deployment Guide*.

- Upgrade VWAP 6.5.4 ASR Log Manager to GVP 7.5:
  - Install GVP 7.5 ASR Log Agent on the SWMS server. For more information, see the *Genesys Voice Platform 7.5 Deployment Guide*.
  - Using the GDT, upgrade the ASR Log Manager and the ASR Log Server. For more information, see the *Genesys Voice Platform 7.5 Deployment Guide*.

For information about configuring ASR Log Manger for Media Resource Control Protocol (MRCP), see "Configuring ASR Log Manager for MRCP" on page 1356.

Upgrading Outbound Notification

This section describes the step required to upgrade the Outbound Notification (OBN) to 7.5.

- Using the GDT, upgrade to the GVP 7.5 OBN on the current OBN server, and register it with the GVP 7.5 EMPS. For more information, see the *Genesys Voice Platform 7.5 Deployment Guide*.

Upgrading Databases

This section describes the steps required to upgrade the GVP databases.

Upgrading Network Monitor Database

1. Delete the existing `NetMon` database.
2. Create a new database called `NetMon`.
3. Run the `NetMon_from_scratch_7_5_0.sql` script located in the directory `<GVP install directory>\cn\sql\sqripts\msql\7.5.0`.
4. Check for any errors.
5. Close the file.
6. Restart the Network Monitor processes.

Upgrading Collector Database

1. Stop the Events Loader and Events Validator processes.
2. Back up the Collector database.
3. Open the Query Analyzer.

> **Note:** Consult with your Database Administrator (DBA) for assistance.

4. Connect to the database server as `Collector` database user, using the source configuration information.
5. Point the Query Analyzer to the `Collector` database, if the Query Analyzer does not automatically find it.
6. Click the `Load SQL Script` icon on the SQL Query Analyzer.
7. If upgrading from VWAP 6.5.4, browse and locate the following file: `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\collector_upgrade_7_5_0_from_6_5_4.sql`

   If upgrading from GVP 7.0.3, browse and locate the following file: `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\collector_upgrade_7_5_0_from_7_0_3.sql`
8. Select and execute the file by pressing `F5` or the execute icon. This might take some time to complete, depending upon the volume of data.
9. Check for any errors.

10. Close the file.
11. Start the Events Loader process.

Upgrading Peaks Database

1. Stop the Call Records Generator and Peaks Calculator processes.
2. Back up the Peaks database.
3. Open the Query Analyzer.
4. Connect to the database server as `Peaks` database user, using the source configuration information.
5. Point the Query Analyzer to the Peaks database, if the Query Analyzer does not automatically find it.
6. Click the `Load SQL Script` icon on the SQL Query Analyzer.
7. If upgrading from VWAP 6.5.4, browse and locate the following file:
   `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\peaks_upgrade_7_5_0_from_6_5_4.sql`

   If upgrading from GVP 7.0.3, browse and locate the following file:
   `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\peaks_upgrade_7_5_0_from_7_0_3.sql`

   If upgrading from GVP 7.2, browse and locate the following file:
   `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\peaks_upgrade_7_5_0_from_7_2_0.sql`
8. Select and execute the file by pressing `F5` or the execute icon.
9. Check for any errors.
10. Close the file.
11. Start the Call Records Generator and Peaks Calculator processes.

Upgrading Reporter Database

1. Stop the CallRecordsGenerator and Peaks Calculator processes (PeaksNSP, PeaksReporter, and PeaksAIM).
2. Shut down the Reporter website.
3. Back up the Reporter database.
4. Open the Query Analyzer.
5. Connect to the database server as `Reporter` database user, using the source configuration information.
6. Point the Query Analyzer to the Reporter database, if the Query Analyzer does not automatically find it.
7. Click the `Load SQL Script` icon on the SQL Query analyzer.

8. If upgrading from VWAP 6.5.4, browse and locate the following file: `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\reporter_upgrade_7_5_0_from_6_5_4.sql`

   If upgrading from GVP 7.0.3, browse and locate the following file: `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\reporter_upgrade_7_5_0_from_7_0_3.sql`

   If upgrading from GVP 7.2, browse and locate the following file: `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\reporter_upgrade_7_5_0_from_7_2_0.sql`
9. Select and execute the file by pressing `F5` or the execute icon.
10. Check for any errors.
11. Close the file.
12. Start the Reporter website.
13. Start the CallRecordsGenerator and Peaks Calculator processes (PeaksNSP, PeaksReporter, and PeaksAIM).

Upgrading RepDWH Database

1. Stop the CallRecordsGenerator process.
2. Back up the RepDWH database.
3. Open the Query Analyzer.
4. Connect to the database server as `RepDWH` database user, using the source configuration information.
5. Point the Query Analyzer to the RepDWH database, if the Query Analyzer does not automatically find it.
6. Click the `Load SQL Script` icon on the SQL Query Analyzer.
7. If upgrading from VWAP 6.5.4, browse and locate the following file: `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\repdwh_upgrade_7_5_0_from_6_5_4.sql` file.

   If upgrading from GVP 7.0.3, browse and locate the following file: `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\repdwh_upgrade_7_5_0_from_7_0_3.sql`

   If upgrading from GVP 7.2, browse and locate the following file: `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\repdwh_upgrade_7_5_0_from_7_2_0.sql`
8. Select and execute the file by pressing `F5` or the execute icon. This might take some time to complete, depending upon the volume of data.
9. Check for any errors.
10. Close the file.
11. Start the CallRecordsGenerator process.

Upgrading UnifiedLogin Database

1. Shut down the Login Server website.
2. Back up the UnifiedLogin database.
3. Open the Query Analyzer.
4. Connect to the database server as `UnifiedLogin` database user, using the source configuration information.
5. Point the Query Analyzer to the UnifiedLogin database, if the Query Analyzer does not automatically find it.
6. Click the `Load SQL Script` icon on the SQL Query Analyzer.
7. If upgrading from VWAP 6.5.4, browse and locate the following file:
   `<InstallDir>\sqlscripts\mssql\UnifiedLogin\7.5.0\UnifiedLogin_upgrade_7_5_0_from_6_5_4.sql`

   If upgrading from GVP 7.0.3, browse and locate the following file:
   `<InstallDir>\sqlscripts\mssql\UnifiedLogin\7.5.0\UnifiedLogin_upgrade_7_5_0_from_7_0_3.sql`

   If upgrading from GVP 7.2, browse and locate the following file:
   `<InstallDir>\sqlscripts\mssql\UnifiedLogin\7.5.0\UnifiedLogin_upgrade_7_5_0_from_7_2_0.sql`
8. Select and execute the file by pressing `F5` or the execute icon. This produces some caution messages while executing; you can ignore these.
9. Check for any errors.
10. Close the file.
11. Start the Login Server website.

Additional Database Maintenance Activities

Cleaning Reporter Database

Note: The following steps are required only if upgrading from 6.5.4 to 7.5.

1. Stop the CallRecordsGenerator and Peaks Calculator processes.
2. Shut down the Reporter website.
3. Back up the Reporter database.
4. Open the Query Analyzer.
5. Connect to the database server as `Reporter` database user, using the source configuration information.
6. Point the Query Analyzer to the Reporter database, if the Query Analyzer does not automatically find it.

7. Click the `Load SQL Script` icon on the SQL Query Analyzer.
8. Browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\Cleanup_Reporter_7_5_0_from_6_5_4.sql` file.
9. Select and execute the file by pressing `F5` or the execute icon.
10. Check for any errors.
11. Close the file.
12. Start the Reporter website.
13. Start the CallRecordsGenerator and Peaks Calculator processes.

Upgrading Reporter Queries

Note: The following steps are required only if upgrading from 6.5.4 to 7.5.

1. Stop the CallRecordsGenerator and Peaks Calculator processes.
2. Shut down the Reporter website.
3. Back up the Reporter database.
4. Open the Query Analyzer.
5. Connect to the database server as `Reporter` database user, using the source configuration information.
6. Point the Query Analyzer to the Reporter database, if the Query Analyzer does not automatically find it.
7. Click the `Load SQL Script` icon on the SQL Query Analyzer.
8. Browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\query_upgrade_reporter_7_5_0_from_6_5_4.sql` file.
9. Select and execute the file by pressing `F5` or the execute icon.
10. Check for any errors.
11. Close the file.
12. Start the Reporter website.
13. Start the CallRecordsGenerator and Peaks Calculator processes.

Cleaning RepDWH Database

Note: The following steps are required only if upgrading from 6.5.4 to 7.5.

1. Stop the CallRecordsGenerator process.
2. Back up the RepDWH database.
3. Open the Query Analyzer.

4. Connect to the database server as `RepDWH` database user, using the source configuration information.
5. Point the Query Analyzer to the RepDWH database, if the Query Analyzer does not automatically find it.
6. Click the `Load SQL Script` icon on the SQL Query Analyzer.
7. If upgrading to the 7.5 release from the 7.0.3 or the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.5.0\Cleanup_RepDWH_7_5_0_from_6_5_4.sql` file.
8. Select and execute the file by pressing `F5`, or the execute icon. This might take some time to complete, depending upon the volume of data.
9. Check for any errors.
10. Close the file.
11. Start the CallRecordsGenerator process.

Upgrade Considerations

This section provides recommendations for upgrading the GVP components in specific situations.

EventC

EventC Standby Configuration

EventC does not support hot-standby; only cold-standby is supported. During the upgrade process, the EventC SQL database is replicated to the standby setup. The standby has EventC installed, but *not* running.

Key Changes to EventC

From 6.5.4 systems:

- Events Validator is removed.
- PeaksReporter and PeaksNSP are removed.
- EventCManager has been added to every box where EventsValidator previously existed.

Upgrade in a Primary-Standby Setup

Genesys recommends that you perform the upgrade by installing a standby GVP 7.5 system before installing the primary system. The reasons for this are:

- The installation of the upgraded standby system can be completed and tested without affecting the existing system.

- With a primary and a standby system available, the change to the upgraded version can be performed quickly, minimizing the time that the events need to be saved on the VCS/IPCS. Also, any hardware failure can be fixed by switching to the standby system.

Policy Manager

Upgrading Policy Manger in Real-Time

The following steps describe how to upgrade Policy Manager (PM) while processing calls:

1. Using EMPS, provision a customer on the GVP 7.5 PM server.
2. Start WatchDog. Ensure that the Element Management System (EMS) GUI for the GVP 7.5 PM server displays the newly provisioned PM customer.
3. Monitor the GVP 7.5 PM to ensure that calls are being processed correctly.
4. If calls are not being processed correctly by the new GVP 7.5 PM, direct traffic back to the existing GVP/VWAP PM, and then call Genesys Technical Support for troubleshooting the GVP 7.5 PM issue.
5. Once the new GVP 7.5 PM is handling traffic correctly, start upgrading other PM processes from the existing GVP/VWAP to GVP 7.5 as follows:
   - Re-provision each customer process to use the new GVP 7.5 PM server as the primary PM machine.
6. Monitor the GVP 7.5 PM server for several days. If any problems are found, roll-back to the original PM by re-provisioning all customers to the original PM process.

Upgrading a Primary and Backup Policy Manager

The following steps describe how to upgrade a primary PM and a backup PM:

1. Upgrade the backup PM server before attempting to upgrade the primary PM.

   Note: Direct all traffic handled by the backup PM to the primary PM before upgrading the backup PM.

2. Once the backup PM is idle, using the GDT, upgrade the PM and register it with the GVP 7.5 EMPS.
3. Using EMPS, provision a customer on the GVP 7.5 PM who is equivalent to a customer that exists on the primary PM.
4. Start WatchDog. Ensure that the EMS GUI for the PM server displays the newly provisioned PM customer.

5. If Step 4 was successful, direct traffic from the PM to the primary GVP 7.5 PM.
6. Monitor the GVP 7.5 PM to ensure that calls are being processed correctly.
7. If calls are not being processed correctly by the new GVP 7.5 PM, direct traffic back to the primary PM, and then call Genesys Technical Support for troubleshooting the GVP 7.5 PM issue.
8. Once it has been determined that the new GVP 7.5 PM is handling traffic correctly, start migrating other customer PM processes to GVP 7.5 as follows:

   Re-provision each customer process to use the new GVP 7.5 PM server as the primary PM machine.
9. Monitor the GVP 7.5 PM server for several days.
10. Once the GVP 7.5 PM server is fully functional, the primary PM server should then be upgraded to the GVP 7.5 PM software, following Steps 1–9.

Bandwidth Manager

Upgrading Bandwidth Manager in Real-Time

The following steps describe how to upgrade Bandwidth Manager (BWM) while processing calls:

1. Start WatchDog. Ensure that the EMS GUI for the BWM server displays the BWM process.
2. If Step 1 was successful, direct traffic for one provisioned customer from the previous version of BWM to the GVP 7.5 BWM.
3. Monitor the GVP 7.5 BWM to ensure that calls are being processed correctly on this server.
   a. If calls are not being processed correctly by the new GVP 7.5 BWM, redirect traffic back to the previous BWM, and then call Genesys Technical Support for troubleshooting the GVP 7.5 BWM issue.
   b. If the new GVP 7.5 BWM is handling traffic correctly, start migrating other customer BWM processes from the previous BWM to GVP 7.5, by re-provisioning each customer to use the new GVP 7.5 BWM server.
4. Monitor the GVP 7.5 BWM server for several days. If any issues are found, roll-back to the previous version, re-provisioning all customers to the previous process.

IVR Server Client

Upgrading IVR Server Client in Real-Time

The following steps describe how to upgrade IVR Server Client while processing calls:

1. Using EMPS, provision a customer on the GVP 7.5 IVR Server Client who is equivalent to a customer that exists on the original IVR Server Client.
2. Start WatchDog. Ensure that the EMS GUI for the IVR Server Client displays the newly provisioned IVR Server Client, as well as the connections to any provisioned IVR Servers.
3. If Step 2 was successful, redirect traffic for one provisioned customer from the original IVR Server Client to the GVP 7.5 IVR Server Client.
4. Monitor the GVP 7.5 IVR Server Client to ensure that calls are being processed correctly on this server.
   a. If calls are not being processed correctly by the new GVP 7.5 IVR Server Client, redirect traffic back to the original IVR Server Client, and then call Genesys Technical Support for troubleshooting the GVP 7.5 IVR Server Client issue.
   b. If the new GVP 7.5 IVR Server Client is handling traffic correctly, start migrating other customer IVR Server Client processes to GVP 7.5 as follows:

      Re-provision each customer process to use the new GVP 7.5 IVR Server Client server as the primary IVR Server Client machine.
5. Monitor the GVP 7.5 IVR Server Client for several days to ensure that calls are being processed correctly. If any issues are found, roll-back to the original IVR Server Client by re-provisioning all customers to the original IVR Server Client process.

Upgrading a Primary and Backup IVR Server Client

Genesys recommends the following steps for upgrading a primary and backup IVR Server Client:

1. Install the GVP 7.5 IVR Server Client on the new primary and backup servers using the GDT, and register them with the GVP 7.5 EMPS.
2. Using EMPS, provision a single customer to use the new GVP 7.5 IVR Server Clients who is equivalent to one that already exists on the original primary IVR Server Client.
3. Start WatchDog. Ensure that the EMS GUI for the IVR Server Client server displays the newly provisioned IVR Server Client customer, as well as the connections to any provisioned IVR Servers.

4. If Step 3 was successful, redirect traffic for the provisioned customer from the original IVR Server Client to the GVP 7.5 IVR Server Client.
5. Monitor the GVP 7.5 IVR Server Client for several days to ensure that calls are being processed correctly.
   a. If calls are not being processed correctly by the new GVP 7.5 IVR Server Client, redirect traffic for that customer back to the original IVR Server Client, and then call Genesys Technical Support for troubleshooting the GVP 7.5 IVR Server Client issue.
   b. If the new GVP 7.5 IVR Server Client is handling traffic correctly, start migrating other customer IVR Server Client processes to GVP 7.5 as follows:

      Re-provision each customer process to use the new GVP 7.5 IVR Server Client server as the primary IVR Server Client machine.
6. Monitor the GVP 7.5 IVR Server Client server for several days. If any issues are found, roll-back to the original IVR Server Client by re-provisioning all customers to the original IVR Server Client process. Contact Genesys Technical Support to troubleshoot the issue on the GVP 7.5 IVR Server Client.

Cisco Queue Adapter

Upgrading Cisco Queue Adapter in Real-Time

The following steps describe how to upgrade the Cisco Queue Adapter (CQA) while processing calls:

1. Using EMPS, provision a customer on the GVP 7.5 CQA who is equivalent to a customer that exists on the original CQA.
2. Start WatchDog. Ensure that the EMS GUI for the CQA displays the newly provisioned CQA.
3. If Step 2 was successful, redirect traffic for one provisioned customer from the original CQA to the GVP 7.5 CQA as follows:
   a. Provision the new GVP 7.5 CQA as the primary CQA.
   b. Add the new GVP 7.5 CQA IP address to the Peripheral Gateway.
4. Monitor the GVP 7.5 CQA to ensure that calls are being processed correctly.
   a. If calls are not being processed correctly by the new GVP 7.5 CQA, redirect traffic for that customer back to the original CQA, and then contact Genesys Technical Support for troubleshooting the GVP 7.5 CQA issue.
   b. If the new GVP 7.5 CQA is handling traffic correctly, start migrating other customer CQA processes to GVP 7.5 as follows:

Re-provision each customer process to use the new GVP 7.5 CQA server as the primary CQA machine.

5. Monitor the GVP 7.5 CQA server for several days. If any issues are found, roll-back to the original CQA by re-provisioning all customers to the original CQA process.

Upgrading a Primary and Backup CQA

Genesys recommends the following steps for upgrading the CQA:

Note: Upgrade the backup CQA first before attempting to upgrade the primary CQA.

1. Ensure that any traffic that the backup CQA is handling directly is diverted to the primary CQA.
2. Once the backup CQA is idle, using the GDT, install the GVP 7.5 CQA on the backup server, and register it with the GVP 7.5 EMPS.
3. Using EMPS, provision a customer on the GVP 7.5 CQA equivalent to a customer that exists on the original primary CQA.
4. Start WatchDog. Ensure that the EMS GUI for the CQA server displays the newly provisioned CQA customer.
5. If Step 4 was successful, redirect traffic for the provisioned customer from the original primary CQA to the primary GVP 7.5 CQA by provisioning the new GVP 7.5 CQA as the primary CQA process for the customer.
6. Monitor the GVP 7.5 CQA for several days to ensure that calls are being processed correctly.
   a. If calls are not being processed correctly by the new GVP 7.5 CQA, redirect traffic for that customer back to the original CQA, and then contact Genesys Technical Support for troubleshooting the GVP 7.5 CQA issue.
   b. If the new GVP 7.5 CQA is handling traffic correctly, start migrating other customer CQA processes to GVP 7.5 as follows:

      Re-provision each customer process to use the new GVP 7.5 CQA server as the primary CQA machine.
7. Monitor the GVP 7.5 CQA server for several days. If any issues are found, roll-back to the original CQA process by re-provisioning all customers to the original CQA process.
8. Once the GVP 7.5 CQA server is fully functional, the original primary CQA server should then be upgraded to the GVP 7.5 CQA software following Steps 1–7.

Configuring ASR Log Manager for MRCP

Some Media Resource Control Protocol (MRCP) Automatic Speech Recognition (ASR) vendors may require IPCS/VCS to send vendor specific parameters to enable integration to ASR Log Manager so that utterances are enabled/disabled correctly for each call.

Table 231 lists the EMPS parameters for VCS/IPCS.

Table 231: EMPS Parameters

Location	EMPS Parameter Description	Type	Description	Default Values	Display Mode
VCS: Popgateway/ASR/MRCP IPCS (basic): McuXml/ASR/MRCP IPCS (enhanced): Mcu/ASR/MRCP	Enable Utterance Capture	String	Specifies a string containing the vendor specific parameter to be sent to the server that turns on utterance capture.	N/A	Advanced
VCS: Popgateway/ASR/MRCP IPCS (basic): McuXml/ASR/MRCP IPCS (enhanced): Mcu/ASR/MRCP	Disable Utterance Capture	String	Specifies a string containing the vendor specific parameter to be sent to the server that turns off utterance capture.	N/A	Advanced

When using ASR Log Manager with SWMS:

1. Set the `Enable Utterance Capture` parameter to `swirec_suppress_waveform_logging=0`.
2. Set the `Disable Utterance Capture` parameter to `swirec_suppress_waveform_logging=1`.

Note: Utterance capture is set by default to `off` during ASR Log Manager installation.

3. Set the following parameters for the OSR `baseline.xml` file in the directory `Program Files\SpeechWorks\OpenSpeech Recognizer\config`:

```
<param name="swiep_suppress_waveform_logging">
      <value>1</value>
   </param>
<param name="swirec_suppress_waveform_logging">
      <value>1</value>
   </param>
```

Call Manager (SIP)

New in GVP 7.5 IPCM

Content

In VWAP 6.5.4, the Call Manager components are part of the Voice Web Manager installation. In GVP 7.5, the IP Call Manager (IPCM) components have separate installers, one for each component listed below:

- Resource Manager (RM)
- SIP Session Manager (SSM)
- H.323 Session Manager (HSM)

Database

In VWAP 6.5.4, Call Manager uses the Microsoft SQL Server 2000 Database. Starting with GVP 7.0.3, Call Manager uses a Polyhedra real-time in-memory database. Use of the Polyhedra database continues in GVP 7.5.

Note: Using the PolyHedra database with fault tolerance is not applicable for HSM.

Device Status Polling

This is a new feature for GVP 7.5. IPCM periodically checks the health of each IPCS or Media Gateway (MG), and marks the device as available or unavailable accordingly. To achieve this, IPCM periodically sends a SIP message (with a timeout value) to each device. Based on the response, IPCM marks the status of each device as either `available`, or `unavailable`. Resource Manager does not reserve resources from an unavailable device.

Upgrade Plan: Two New Servers

The following upgrade plan assumes that a fully redundant IPCM pair will be running. Traffic will be diverted to the new IPCM pair. Calls with limited

traffic will be made to verify the correct operation of the system before moving a full traffic load to the new system.This operation requires two new servers.

Installing GVP 7.5 Software on Server1 and Server2

Note: The same versions of software should be installed on both servers.

- Using the GDT, install GVP 7.5 IPCM on two new servers.

Configuring EMPS

To run the two IPCMs in a two-machine, fault-tolerant mode, perform the following steps in EMPS:

Call Manager Server1

1. On the `Arbitrator` page, specify the backup database address (Server2).
2. On the `SIP Session Manager` page, provide:
   a. The primary database address and port. (For example, `localhost:16500`).
   b. The backup database address and port. (For example, `<server2>:16500`).
3. On the `Resource Manager` page, provide:
   a. The primary database address and port. (For example, `localhost:16500`).
   b. The backup database address and port. (For example, `<server2>:16500`).
4. On the `Resource Manager` page, add the MG Server groups that will be used. For MG and MG Server group configuration, see the *Genesys Voice Platform 7.5 Deployment Guide*.

Call Manager Server2

1. On the `Arbitrator` page, specify the backup database address (Server1).
2. On the `SIP Session Manager` page, provide:
   a. The primary database address and port. (For example, `localhost:16500`).
   b. The backup database address and port. (For example, `<server1>:16500`).
3. On the `Resource Manager` page, provide:
   a. The primary database address and port. (For example, `localhost:16500`).
   b. The backup database address and port. (For example, `<server1>:16500`).
4. On the Resource Manager page, add the MG Server groups that will be used. Genesys recommends using the same MG Server groups as those configured for Server1. For MG and MG Server group configuration, see the *Genesys Voice Platform 7.5 Deployment Guide*.

Load Sharing

After installation and configuration are complete, move five percent of the existing traffic to the new GVP 7.5 IPCM pair. One or more IPCSs should be registered with the new IPCM pair to process calls. The safest way to do this is to upgrade one or more IPCS systems to GVP 7.5 and register it with the new IPCM, and then monitor the system. If no problems are found, gradually move the rest of the traffic to this GVP 7.5 IPCM pair. After all of the traffic has been re-directed to the new GVP 7.5 IPCM pair, take the old IPCM pair off-line. The IPCM pair may now be used to upgrade any additional IPCMs in your deployment.

Upgrade Plan—One New Server

The one new server upgrade plan is similar to the upgrade plan with two new servers; however, there is only a primary IPCM. After a new IPCM has been installed, and all of the traffic is moved to it, the old IPCM can be shut down, upgraded, and introduced as the backup IPCM server.

Load Sharing

After installation and configuration are complete, move a small percentage of the existing traffic to the new GVP 7.5 IPCM host. One or more IPCSs should be registered with the new IP Call Manager to process calls. There is no backup Call Manager; therefore, if the Call Manager is not responding, calls will not be answered. Monitor the system. If no problems are found, upgrade the original backup server to GVP 7.5 IPCM and move traffic to it. Finally, upgrade the original primary server to GVP 7.5.

Note: After upgrading the original backup server, use the fault-tolerant configuration steps outlined in the section “Configuring EMPS” on page 1358 above.

Upgrade Plan—No New Server

In this scenario, upgrade the backup IPCM before you upgrade. Follow the steps below for upgrading the backup IPCM:

1. Move all call traffic from the Media Gateway/SoftSwitch to the backup IPCM. If the primary IPCM is unavailable while the backup IPCM is being upgraded, then outbound calls made by IPCS might fail.
2. Initiate a graceful shutdown of WatchDog on the backup IPCM. If calls are stuck, and shutdown has not occurred, then an ungraceful shutdown can be initiated through IPCM processes (SSM, HSM, or RM).

Note: IPCM releases prior to GVP 7.2 MR1 cannot perform a graceful shutdown without losing data. You must plan the upgrade so that there are no calls on SSM. When SSM is shut down, all calls will be lost.

3. Using the GDT, install GVP 7.5 RM and GVP 7.5 SSM.
4. Configure EMPS using the information in the section "Configuring EMPS" on page 1358.
5. Move five percent of the existing call traffic to the backup IPCM, and then monitor the system. If there are no issues, slowly increase the call traffic. If calls are not being processed correctly by the backup IPCM, restore the original configuration and contact Genesys Technical Support.
6. Restart all IPCSs in the network to register them with the backup IPCM.

Note: The IPCM fault tolerance feature will not work until the primary IPCM is upgraded to GVP 7.5.

To upgrade the primary IPCM:

1. Ensure that all of the call traffic coming from the Media Gateway/SoftSwitch is going to the backup IPCM.
2. Configure all IPCSs in the network with the backup IPCM operating as the primary IPCM. This is required to avoid IPCS from timing out when it contacts the primary IPCM for outbound calls.
3. Initiate a graceful shutdown of WatchDog on the primary IPCM. The IPCM will still process active calls, but will not accept any new calls. If calls are stuck, and shutdown can not occur, then an ungraceful shutdown can be initiated through IPCM processes (SSM, HSM, or RM).

Note: IPCM releases prior to GVP 7.2 MR1 cannot perform a graceful shutdown without losing data.You must plan the upgrade, so that there are no calls on SSM. When SSM is shut down, all calls will be lost.

4. Using the GDT, install GVP 7.5 RM and GVP 7.5 SSM.
5. Re-configure all IPCSs for the primary and backup IPCM information, and then restart all IPCS hosts in the network.

Device Status Polling

The Device Status Polling feature is turned off by default and should only be turned on after all of the IPCM and IPCS boxes have been migrated to GVP 7.5.

Warning! This feature should not be enabled if SIP Server does not support the `OPTIONS` method.

Device Status Polling can be configured through EMPS. For more information, see the "Configuring Resource Manager" section of the *Genesys Voice Platform 7.5 Deployment Guide.*

Upgrading from Windows 2000 to Windows 2003

Microsoft supports the upgrade from Windows 2000 to Windows 2003 server; however, Microsoft states that it might be safer to install a new operating system, and then reinstall the software.

Upgrading GVP 7.5 on Windows 2000 to GVP 7.5 on Windows 2003

This upgrade requires that each server be gracefully shut down, upgraded, and then restored. The order of shut down is not important, except to make sure that when a server is gracefully shutdown, it is not actively participating in calls, or if it is active, that it has a working backup server in place to handle the calls while the upgrade is taking place.

Chapter

65 Migration for Genesys Voice Platform: Network Edition

This chapter discusses the preliminary migration procedures and the migration order for migrating from Voice Web Application Platform (VWAP) 6.5.4 to Genesys Voice Platform: Network Edition (GVP: NE) 7.0.3, and Genesys Voice Platform: Network Edition 7.2.

The sequence for performing this upgrade preserves your previous configurations; however, make sure that you back up existing configuration information to facilitate reconfiguration after migration and in case you must roll back the upgrade.

There are six main sections in this chapter:

Note: You must contact your Genesys representative for specific guidance and assistance with your migration strategy. With the assistance of your Genesys representative, you must create a plan for approaching the installation/migration, and you must customize the migration steps. There is no single method for migration.

Introduction

This chapter uses a typical installation and configuration with the following physical servers:

- A physical server with Voice Platform Element Management Provisioning System (EMPS) deployed.

  Note: EMPS was referred to as Voice Web Provisioning System or VWPS in the VWAP 6.5.4 release.

- A physical server with a subset of Genesys Voice Platform Element Management System (EMS) components deployed. This server will be referred to as EMS1.

  Note: EMS was referred to as Voice Web Manager or VWM in the VWAP 6.5.4 release.

- A second physical server with the remaining subset of EMS components deployed. This server will be referred to as EMS2.
- One or more physical servers with Genesys Voice Platform Voice Communications Server (VCS) deployed.
- One or more physical servers with Genesys Voice Platform IP Communications Server (IPCS) deployed.

Deployment Sequence

Before upgrading, ensure that all VWAP components work correctly under the current release. All GVP components must be running the GA versions. The post-GA hot fixes are optional for this upgrade. Do not mix configuration and troubleshooting of the base installation with the upgrade. The following sections describe the recommended sequence for upgrading the GVP: NE components.

Note: This chapter describes only the upgrade sequence and caveats related to it. Make sure that you thoroughly understand the migration instructions and requirements before attempting the migration. For each component, there can be dependencies to the Genesys Voice Platform Common component. Each component will specify the dependencies.

Loading New MIB

Loading new MIBs ensures that any new traps, which the new GVP: NE 7.0.3 and 7.2 components generate, are properly represented in your Element Management system. If no Element Management system is deployed, this step does not apply. This step does not adversely impact existing 6.5.4 or 7.0.3 traps. Verify normal functioning of your Element Management system by ensuring that the Alarm Monitor continues to display traps.

Upgrading EMPS

EMPS uses a SunOne Directory Server and an SQL Server to store its information. You do not have to manually modify the SunOne Directory Server software or change SQL Server tables or SQL Server software for the upgrade. Implement this step by strictly adhering to the following instructions:

To upgrade EMPS:

1. Uninstall EMPS using the Windows Control Panel > Add/Remove Programs menus.
2. After uninstalling, reboot the machine.
3. Back up the SunOne Directory Server. Export the relevant root node data into an LDIF file. For details on how to do this, refer to *Appendix A* in the *Voice Web Application Platform 6.5 Deployment Guide.*
4. After backing up the directory server data, backup the data in the VWPS SQL Server database. Make sure that the backup contains the schema.

   Note: You can use the data from this backup if you must roll back to the previous environment.

5. Install the 7.0.3 or 7.2 version of EMPS. For details on how to do this, refer to the *Genesys Voice Platform: Network Edition 7 Deployment Guide*, or the *Genesys Voice Platform: Network Edition 7.2 Deployment Guide.*
6. Restart WatchDog.
7. Configure EMPS. For details on how to do this, refer to the *Genesys Voice Platform: Network Edition 7 Deployment Guide* for version 7.0.3, or the *Genesys Voice Platform: Network Edition 7.2 Deployment Guide* for version 7.2.

   The upgrade preserves your existing EMPS configuration. Verify that all parameter values are correct.

Note: Some parameters in 7.0.3 are new, and you must supply values for them.

8. Log in to EMPS and click `Diagnostics`. Make sure that all of the diagnostic tests return `success`.
9. In case the installation is not successful, perform the following steps to roll back to the previous version of EMPS.
   a. Restore the SunOne Directory Server data from backup (follow the instructions provided by SunOne).
   b. Restore the EMPS database from the backup that was taken before starting the upgrade.
   c. Uninstall EMPS 7.0.3, or EMPS 7.2.
   d. Install VWPS 6.5.4, or EMPS 7.0.3 (from the previous product DVD).

If you are migrating from release 6.5.4 to release 7.2, you must delete the following data nodes manually:

1. EPMS > Servers > each SAP machine:
   - `SAP`
   - `RequestHandler`
   - `PopGateway1`

Note: Do not delete the `PopGateway1` node if this is a VCS/IPCS machine.

2. EMPS > Servers > each ORL machine:
   - `ORL`

Note: This procedure will not remove the `ServerType ORL` and `SAP` from the servers data. In this case, the Network Management GUI may continue to assume that SAP and ORL are present.

Upgrading EMS1 Components

A typical installation and configuration will have a physical server with a subset of EMS components deployed. This server will be referred to as EMS1. The typical EMS1 physical server hosts the following EMS components:

- Policy Manager
- IVR Server Client (previously referred to as Genesys Queue Adapter)
- Bandwidth Manager

You must upgrade all EMS components on an EMS server at the same time. Follow these instructions to upgrade the listed components for EMS1.

1. Make a note of all of the EMS components running on your EMS1 server.
2. Stop all EMS services on the EMS1 server.
3. Uninstall all of the VWAP 6.5.4 or GVP: NE 7.0.3 components from the EMS1 server and reboot the machine.
4. Install the 7.0.3, or 7.2 version of only those EMS components identified in Step 1. For details on how to do this, refer to the *Genesys Voice Platform: Network Edition 7 Deployment Guide.*
5. Start all of the EMS services and verify that the calls are working. To do this, make a call and verify that the Policy Manager Element Management GUI shows call activity.

Upgrading EMS2 Components

Note: The first step while upgrading the EMS Reporting Software is uninstalling the existing software followed by installing the new software.

A typical installation and configuration will have a second physical server with the remaining subset of VWM components deployed. This server will be referred to as EMS2. The typical EMS2 physical server hosts the following EMS components:

- EventCollector
- Unified Login Server
- Reporter
- Call Status Monitor
- Network Monitor

Note: GVP: NE 7.0.3 and 7.2 have discontinued the use of ASR Log manager, SAP, and TQA.

Migrating EventC and Reporting

The EventCollector (EventC) receives call events from multiple VCS servers and processes these events into Call Data Records (CDRs). EventC uses an SQL database server to store call events and processed CDRs. The procedures outlined here, allow the operator to migrate from VWAP 6.5.4 (source) to GVP: NE 7.0.3 or 7.2 (destination). A qualified database administrator must be consulted to properly transfer SQL data from one server to another.

Note: Before proceeding with any of the following steps, make a backup of the Collector, Reporter, RepDWH, Peaks, and UnifiedLogin databases. Also, make a backup of the required folders in the data directory after stopping WatchDog in the EventC server. After the migration is complete, place those backed-up folders in the appropriate places. Also, make a back up of the log folder for future reference.

EventC Configurations

EventC can be deployed in multiple types of configurations for scaling purposes.

Table 232 shows a single box solution.

Table 232: Single Box Solution

Server	Processes	Databases	Load
Eventc_one	BillingURL EventsLoader EventsValidator CallRecsGenerator PeaksNSP PeaksReporter PeaksAIM	Collector Peaks Reporter RepDWH	100%

Table 233 shows a two-box solution. It takes the reporter database out of the first box, so the reporting load on the box is reduced.

Table 233: Two-Box Solution

Server	Processes	Databases	Load
Eventc_one	BillingURL EventsLoader EventsValidator CallRecsGenerator PeaksNSP PeaksReporter PeaksAIM	Collector Peaks	100%
Eventc_SQL		Reporter RepDWH	

Table 234 shows a three-box solution.

Table 234: Three-Box Solution

Server	Processes	Databases	Load
Eventc_one	BillingURL(1) EventsLoader(1) EventsValidator(1) CallRecsGenerator(1) PeaksNSP PeaksReporter PeaksAIM	Collector(1) Peaks	30%
Eventc_two	BillingURL(2) EventsLoader(2) EventsValidator(2) CallRecsGenerator(2)	Collector(2)	70%
Eventc_SQL		Reporter RepDWH	

Table 235 shows a four-box solution.

Table 235: Four-Box Solution

Server	Processes	Databases	Load
Eventc_one	BillingURL(1) EventsLoader(1) EventsValidator(1) CallRecsGenerator(1)	Collector(1)	50%
Eventc_two	BillingURL(2) EventsLoader(2) EventsValidator(2) CallRecsGenerator(2)	Collector(2)	50%
Eventc_three	PeaksNSP PeaksReporter PeaksAIM	Peaks	
Eventc_SQL		Reporter RepDWH	

EventC Standby Configuration

EventC does not support hot-standby; only cold-standby. The EventC_SQL database is replicated to the standby setup. The standby has EventC installed, but **not** running.

Key Changes to EventC

- Events Validator is removed.
- PeaksReporter and PeaksAIM are removed.
- EventCManager has been added to every box where EventsValidator existed before.

Migration Strategy

This section describes the sequence of actions to be executed to migrate EventC in various configurations. The instructions to execute individual steps are provided in the "Migration Instructions" on page 1371.

Migration in a Primary-Standby Setup

Genesys recommends to migrate the standby setup first before migrating the primary.

Migration Sequence

The sequence of operations below can be executed across a timeline of a few days (if desired) and the systems will be operational during the mixed-mode period.

1. Upgrade the Reporter database (instructions below).
2. Upgrade the RepDWH database (instructions below).
3. Upgrade the EventCs one-by-one.
   a. Stop the EventC server (instructions below).
   b. Uninstall the EventC software.
   c. Log in to the EMPS GUI.
   d. Select `Server` from the top pane, and then expand the `Events Collector` node on the left pane.
   e. Expand the `EventC Server` node, and delete the following nodes:
      - `CallRecsGenerator`
      - `EventsLoader`
      - `PeaksNSP`
      - `EventsValidator`
      - `PeaksCollector`
      - `PeaksAIM`
      - `PeaksReporter`
   f. Install and set up the EventC software (for the instructions, refer to the *Genesys Voice Platform: Network Edition 7 Deployment Guide* for version 7.0.3, or the *Genesys Voice Platform: Network Edition 7.2 Deployment Guide* for version 7.2). For provisioning EventC, use the information noted from the prior version while stopping EventC.
   g. Upgrade the Collector database (instructions below).

   h. Upgrade the Peaks database if peaks is on this EventC (instructions below).
   i. Start the EventC server (instructions below).

4. Upgrade the Reporter software.
   a. Install the Reporter Software (for the instructions, refer to the *Genesys Voice Platform: Network Edition 7 Deployment Guide* for version 7.0.3, or *Genesys Voice Platform: Network Edition 7.2 Deployment Guide* for version 7.2).
   b. Upgrade the reporter queries (instructions below).
5. Clean up the Reporter database (instructions below).
6. Clean up the RepDWH database (instructions below).
7. Upgrade the Login server.
   a. Stop the Login Server website.
   b. Upgrade the UnifiedLogin database to version 7.0.3 (`UnifiedLogin_upgrade_7_0_3_from_6_5_4.sql`), or to version 7.2 (`UnifiedLogin_upgrade_7_2_from_7_0_3.sql`).
   c. Install the Login Server software (for the instructions, refer to the *Genesys Voice Platform: Network Edition 7 Deployment Guide f*or version 7.0.3, or the *Genesys Voice Platform: Network Edition 7.2 Deployment Guide* for version 7.2).
8. Upgrade the Call Status Monitor software (for the instructions, refer to the *Genesys Voice Platform: Network Edition 7 Deployment Guide* for version 7.0.3, or *Genesys Voice Platform: Network Edition 7.2 Deployment Guide* for version 7.2).

Migration Instructions

Stopping an EventC Server

To migrate the EventC server from VWAP 6.5.4 to GVP: NE 7.0.3 or GVP: NE 7.2, follow these steps:

Take note of the provisioning information from the following sections of the current installation (source).

- configeventc
- eventsloader
- callrecordsgenerator
- peaksnsp

Stop the billing port (Port # =9810 / 9811) on the EventC server (source). This ensures that the VCS/IPCS can no longer send call events to the EventC server.

Note: The communication servers store these events locally on disk. Ensure that each individual communication server has sufficient disk space to

store the call events generated during this cutover period. During this cutover period, the communication servers will send `Billing data send failed` SNMP traps to the Network Management Console.

Allow Events Loader on the EventC server (source) to run at least two cycles after the billing port (Port#=9810/9811) has been stopped. This ensures that all pending call-event data files in the `Current Data` directory are loaded into the SQL database on the old EventC server (source). Verify that there are no files left under the `Current Data` directory on the old EventC server (source) before proceeding to the next step.

If you still see some files, you can make a backup of them and move them manually to the corresponding directory on the newer version installation. Also, make a backup of the `cn\data\archives` and `cn\data\exceptions` directories. Place them manually on the corresponding directory on the migrated version installation. Make a backup of the log folder for future reference.

Starting an EventC Server

1. Start the Events Collector processes on the new EventC server (target). Ensure that all EventC processes are functioning correctly. Examine EventC log files to ensure that there are no database connectivity issues or other errors.
2. Closely monitor the logs for the EventC processes on the EventC server (target) for problems. Also verify that the Reporter GUIs are showing new calls.
3. Start the billing port on the new EventC server (target).
4. Check the `Current Data` directory on the new EventC server (target). There should be directories created for each communication server, and files received should also appear.

Upgrading Network Monitor

1. Stop the Network Monitor.
2. Uninstall the Network Monitor software.
3. Install and setup Network Monitor software.
4. Upgrade Netmon Database.
5. Start the Network Monitor Server.

Upgrade Network Monitor Database

1. Stop Network Monitor processes.
2. Back up the Network Monitor Database.

3. Open Query Analyzer.
4. Connect to the database server as the `Collector` database user. Use the source configuration information to do so.
5. Point the Query Analyzer to the Collector database if Query Analyzer does not do it automatically.
6. Click the `Load SQL Script` icon on the SQL Query Analyzer.
7. If upgrading to the 7.2 release from the 7.0.3 or the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\7.2.0\netmon_upgrade_7_2_0_from_7_0_3.sql` file.

   If upgrading to the 7.0.3 release from the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\7.0.3\netmon_upgrade_7_0_3_from_6_5_4.sql` file.
8. Select the file and execute the same by pressing `F5`, or the execute icon. This may take a while to complete depending upon the volume of data.
9. Check for any errors.
10. Close the file.
11. Start the Network Monitor processes.

Upgrading Collector Database

1. Stop the Events Loader and Events Validator processes.
2. Back up the Collector database.
3. Open Query Analyzer.
4. Connect to the database server as `Collector` database user. Use the source configuration information to do so.
5. Point the Query Analyzer to the Collector database if the Query Analyzer does not do it automatically.
6. Click the `Load SQL Script` icon on the SQL Query Analyzer.
7. If upgrading to the 7.2 release from the 7.0.3 or the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.2.0\collector_upgrade_7_2_0_from_6_5_4.sql` file.

   If upgrading to the 7.0.3 release from the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.0.3\collector_upgrade_7_0_3_from_6_5_4.sql` file.
8. Select and execute the file by pressing `F5`, or the execute icon. This might take some time to complete depending upon the volume of data.

9. Check for any errors.
10. Close the file.
11. Start the Events Loader and Events Validator processes.

Upgrading Peaks Database

1. Stop the Call Records Generator and Peaks Calculator processes.
2. Back up the Peaks database.
3. Open the Query Analyzer.
4. Connect to the database server as `Peaks` database user. Use the source configuration information to do so.
5. Point the Query Analyzer to the Peaks database if Query analyzer does not do it automatically.
6. Click the `Load SQL Script` icon on the SQL Query analyzer.
7. If upgrading to the 7.2 release from the 7.0.3 or the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.2.0\peaks_upgrade_7_2_0_from_6_5_4.sql` file.

   If upgrading to the 7.0.3 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.0.3\peaks_upgrade_7_0_3_from_6_5_4.sql` file.
8. Select and execute the file by pressing `F5`, or the execute icon.
9. Check for any errors.
10. Close the file.
11. Start the Call Records Generator and Peaks Calculator processes.

Upgrading Reporter Database

1. Stop the CallRecordsGenerator and Peaks Calculator processes (PeaksNSP, PeaksReporter, and PeaksAIM).
2. Stop the Reporter website.
3. Back up the Reporter database.
4. Open the Query Analyzer.
5. Connect to the database server as `Reporter` database user. Use the source configuration information to do so.
6. Point the Query Analyzer to the Reporter database if the Query Analyzer does not do it automatically.
7. Click the `Load SQL Script` icon on the SQL Query analyzer.

8. If upgrading to the 7.2 release from the 7.0.3 or the 6.5.4 release, browse and locate the file `<InstallDir>\sqlscripts\mssql\EventC\7.2.0\reporter_upgrade_7_2_0_from_6_5_4.sql`.

   If upgrading to the 7.0.3 release from the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.0.3\reporter_upgrade_7_0_3_from_6_5_4.sql` file.
9. Select and execute the file by pressing `F5`, or the execute icon.
10. Check for any errors.
11. Close the file.
12. Start the Reporter website.
13. Start the CallRecordsGenerator and Peaks Calculator processes (PeaksNSP, PeaksReporter, and PeaksAIM).

Upgrading RepDWH Database

1. Stop the CallRecordsGenerator process.
2. Back up the RepDWH database.
3. Open the Query Analyzer.
4. Connect to the database server as `RepDWH` database user. Use the source configuration information to do so.
5. Point the Query Analyzer to the RepDWH database if the Query Analyzer does not do it automatically.
6. Click the `Load SQL Script` icon on the SQL Query analyzer.
7. If upgrading to the 7.2 release from the 7.0.3 or the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.2.0\repdwh_upgrade_7_2_0_from_6_5_4.sql` file.

   If upgrading to the 7.0.3 release from the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.0.0\repdwh_upgrade_7_0_3_from_6_5_4.sql` file.
8. Select and execute the file by pressing `F5`, or the execute icon. This might take some time to complete depending upon the volume of data.
9. Check for any errors.
10. Close the file.
11. Start the CallRecordsGenerator process.

Upgrading UnifiedLogin Database

1. Stop the Login Server website.
2. Back up the UnifiedLogin database.
3. Open the Query Analyzer.
4. Connect to the database server as `UnifiedLogin` database user. Use the source configuration information to do so.
5. Point the Query Analyzer to the UnifiedLogin database if the Query Analyzer does not do it automatically.
6. Click the `Load SQL Script` icon on the SQL Query analyzer.
7. If upgrading to the 7.2 release from the 7.0.3 or the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\UnifiedLogin\7.2.0\UnifiedLogin_upgrade_7_2_0_from_6_5_4.sql` file.

   If upgrading to the 7.0.3 release from the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\UnifiedLogin\7.0.3\UnifiedLogin_upgrade_7_0_2_from_6_5_4.sql` file.
8. Select and execute the file by pressing `F5`, or the execute icon. This produces some "caution" messages while executing, which you can ignore.
9. Check for any errors.
10. Close the file.
11. Start the Login Server website.

Cleaning Reporter Database

Note: This procedure is not required if upgrading to the 7.2 release from the 7.0.3 release.

1. Stop the CallRecordsGenerator and Peaks Calculator processes.
2. Stop the Reporter website.
3. Back up the Reporter database.
4. Open the Query Analyzer.
5. Connect to the database server as `Reporter` database user. Use the source configuration information to do so.
6. Point the Query Analyzer to the Reporter database if the Query Analyzer does not do it automatically.
7. Click the `Load SQL Script` icon on the SQL Query analyzer.

8. If upgrading to the 7.2 release from the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.2.0\Cleanup_Reporter_7_2_0_from_6_5_4.sql` file.

   If upgrading to the 7.0.3 release from the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.0.3\Cleanup_Reporter_7_0_3_from_6_5_4.sql` file.
9. Select and execute the file by pressing `F5`, or the execute icon.
10. Check for any errors.
11. Close the file.
12. Start the Reporter website.
13. Start the CallRecordsGenerator and Peaks Calculator processes.

Upgrading Reporter Queries

1. Stop the CallRecordsGenerator and Peaks Calculator processes.
2. Stop the Reporter website.
3. Back up the Reporter database.
4. Open the Query Analyzer.
5. Connect to the database server as `Reporter` database user. Use the source configuration information to do so.
6. Point the Query Analyzer to the Reporter database if the Query Analyzer does not do it automatically.
7. Click the `Load SQL Script` icon on the SQL Query analyzer.
8. If upgrading to the 7.2 release from the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.2.0\query_upgrade_reporter_7_2_0_from_6_5_4.sql` file.

   If upgrading to the 7.0.3 release from the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.0.3\query_upgrade_reporter_7_0_3_from_6_5_4.sql` file.
9. Select and execute the file by pressing `F5`, or the execute icon.
10. Check for any errors.
11. Close the file.
12. Start the Reporter website.
13. Start the CallRecordsGenerator and Peaks Calculator processes.

Cleaning RepDWH Database

1. Stop the CallRecordsGenerator process.
2. Back up the RepDWH database.
3. Open the Query Analyzer.
4. Connect to the database server as `RepDWH` database user. Use the source configuration information to do so.
5. Point the Query Analyzer to the RepDWH database if the Query Analyzer does not do it automatically.
6. Click the `Load SQL Script` icon on the SQL Query Analyzer.
7. If upgrading to the 7.2 release from the 7.0.3 or the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.2.0\Cleanup_RepDWH_7_2_0_from_6_5_4.sql` file.

   If upgrading to the 7.0.3 release from the 6.5.4 release, browse and locate the `<InstallDir>\sqlscripts\mssql\EventC\7.0.3\Cleanup_RepDWH_7_0_3_from_6_5_4.sql` file.
8. Select and execute the file by pressing `F5`, or the execute icon. This might take some time to complete depending upon the volume of data.
9. Check for any errors.
10. Close the file.
11. Start the CallRecordsGenerator process.

Upgrading Voice Platform Call Manager

A typical installation and configuration will have a third physical server with the following Call Manager components:

- Resource Manager
- SIP Session Manager or H323 Session Manager

1. If the configuration has a primary and a backup Call Manager, first upgrade the primary Call Manager. Before the upgrade, reconfigure the SoftSwitch/Media Gateways to route all new calls to the backup Call Manager.
2. Make a note of all of the Call Manager components running on your current Call Manager server.
3. Stop all EMS services, including IIS.

   Warning! This action disconnects all active calls.
4. Uninstall all of the VWAP 6.5.4 or GVP:NE 7.0.3 components from this server and reboot the machine.

5. Install all of the 7.0.3, or 7.2 versions of only those Call Manager components identified in Step 2 of this section. For details, follow the instructions in the *Genesys Voice Platform: Network Edition 7 Deployment Guide* for version 7.0.3, or the *Genesys Voice Platform: Network Edition 7.2 Deployment Guide* for version 7.2.
6. Start all of the EMS services and verify that the calls are working. To do this:
   a. Configure a test number in the SoftSwitch/Media Gateway to route calls to this Call Manager server.
   b. Verify that the call is answered and audio is established.
7. Reconfigure the SoftSwitch/Media Gateways to route all new calls to this server.
8. Follow steps 2–6 to upgrade the backup Call Manager.

Upgrading VCS

Genesys recommends that you upgrade one VCS machine in the network, verify that the new software is working, and then upgrade the remaining VCS machines.

1. Gracefully shut down the WatchDog on the VCS machine.
2. Uninstall the VCS software. Completely remove the `cn/` tree—for example, `c:/cn` or `d:/cn`.

   Notes: If you are migrating from VCS 6.5.4 (Dialogic 5.1.1) and have custom patches, features, or parameters configured by Intel/Dialogic, you must work with Intel/Dialogic to ensure that these items are available in the Dialogic SR 6.0 release, and you must obtain the procedures for propagating these changes before beginning migration from VCS 6.5.4 to 7.2.0.

   If you are migrating from VCS 6.5.4 (Dialogic 5.1.1), follow step 3; otherwise, proceed to step 4.

3. Uninstall Dialogic by following these steps:
   a. Backup the `%dialogic%\data and %dialogic%\cfg` directories, where `%dialogic%` is the Dialogic install directory. These may be needed when working with Intel/Dialogic to migrate to SR 6.0.
   b. Uninstall the Dialogic PTRs:
      - Run the uninstall program from `Start > Programs > Intel Dialogic System Software > Point Release > Point Release Uninstall`.
      - Click `OK` when prompted to confirm the uninstall.
      - If prompted to remove shared files, click `Yes to All`.

- When prompted to reboot the machine, click `Yes` in order to complete the package uninstallation.

c. Uninstall the Global Call Protocols 4.0:

- Go to `Add/Remove Programs`.
- Select `Intel Dialogic Global Call Protocols` from the list of currently installed programs.
- Click `Remove`.
- Click `OK` when prompted to confirm the uninstall.
- Click `Yes` when prompted to reboot the machine. This completes the uninstallation for this package.

d. Uninstall Dialogic Service Pack 1:

- Run the System Release 5.1.1 Service Pack 1 Uninstall program from `Start > Programs > Intel Dialogic System Software`.
- Click `Yes` when prompted to confirm the uninstall.
- If prompted to remove shared files, click `Yes to All`.
- When prompted to reboot the machine, click `Yes` in order to complete the package uninstallation.

e. Uninstall Dialogic System Release:

- Run the uninstall program from `Start > Programs > Intel Dialogic System Software`.
- Click `OK` when prompted to confirm the uninstall.
- If prompted to remove shared files, click `Yes to All`.
- When prompted to reboot the machine, click `Yes` in order to complete the package uninstallation.
- Delete the Dialogic Installation directory. This removes the files that were created for automated configuration.

4. Install Dialogic SR 6.0 SU 65 by following the instructions in the *Genesys Voice Platform 7.2 Dialogic Deployment Guide*.

Note: If you are migrating from VCS 7.0.3 (Dialogic SR 6.0) and you are already using Dialogic System Release 6.0, VCS 7.2.0 supports SR 6.0 SU 65. Uninstall SR 6.0, and then follow the instructions in the *Genesys Voice Platform 7.2 Dialogic Deployment Guide* to install Dialogic SR 6.0 SU 65. This is the same as a new Dialogic installation, and the necessary files will be updated.

5. Install the 7.0.3, or 7.2 VCS. Follow the instructions in the *Genesys Voice Platform: Network Edition 7 Deployment Guide* for version 7.0.3, or the *Genesys Voice Platform: Network Edition 7.2 Deployment Guide* for version 7.2, to install and configure the VCS software.

6. Start WatchDog. Make calls and verify that the calls are working as expected.

Upgrading IPCS

Genesys recommends that you upgrade one IPCS machine in the network, verify that the new software is working, and then upgrade the remaining IPCS machines.

1. Gracefully shut down the WatchDog on the IPCS machine.
2. Uninstall the IPCS software. Completely remove the `cn/` tree—for example, `c:/cn` or `d:/cn`.
3. Install the 7.0.3, or 7.2 IPCS. Follow the instructions in the *Genesys Voice Platform: Network Edition 7 Deployment Guide* for version 7.0.3, or the *Genesys Voice Platform: Network Edition 7.2 Deployment Guide* for version 7.2 to install and configure the IPCS software.
4. Start WatchDog. Make calls, and verify that the calls are working as expected.

Upgrading TTS

Notes:

- GVP: NE 7.0.3 supports Speechify 3.x version. If you have Speechify 2.x, you must first upgrade to Speechify 3.x, using ScanSoft's instructions.
- GVP: NE 7.2 supports only MRCP TTS. If you have non MRCP TTS software, you must upgrade to MRCP TTS.

1. Gracefully shut down the WatchDog on the TTS machine.
2. Uninstall the TTS software. Completely remove the `cn/` tree—for example, `c:/cn` or `d:/cn`.
3. Install the TTS software. Follow the instructions in the *Genesys Voice Platform: Network Edition 7 Deployment Guide* for version 7.0.3.
4. Start WatchDog. Make calls and verify that TTS requests are being processed as expected.

Upgrading to MRCP TTS

To upgrade to MRCP TTS, install the MRCP server software using the vendor's instructions. Consult the MRCP vendor for details. On the IPCS/VCS servers, remove all groups from the Primary TTS Server Groups and Backup TTS Server Groups under PopGateway section(s) for VCS, or McuXml for IPCS. Also, you must uninstall the non MRCP TTS software. When the uninstall is complete, install and configure the 7.2 TTS MRCP client software

by following the instructions in the *Genesys Voice Platform: Network Edition 7.2 Deployment Guide.*

Upgrading ASR

To upgrade to MRCP ASR, install the MRCP server software using the vendor's instructions. Confidence scores from applications might need to be recalibrated. Consult the MRCP vendor for details.

Note: GVP: NE 7.0.3 and 7.2 does not support non-MRCP ASR. If you are running a 6.5.4 non-MRCP ASR release, Genesys recommends that you upgrade the MRCP to the 6.5.4 release first before migrating to 7.2.

MRCP ASR provides results in NLSML format. This may impact the application if you are upgrading to MRCP where your previous ASR platform provided results in a non-NLSML format. Work with your ASR vendor to resolve these differences.

Upgrade Considerations for Voice Applications

VWAP 6.5.4 supports W3C VoiceXML 2.0 CR (Candidate Release) and GVP 7.0.3 as well as GVP 7.2 supports W3C VoiceXML 2.0 R (Recommendation). GVP 7.2 supports W3C VoiceXML 2.1 (Candidate Recommendation).

The major changes from VoiceXML 2.0 CR include:

- References to `<sentence>` and `<paragraph>` elements are no longer included in SSML.
- The first grammar in document order has highest priority if the input matches more than one active grammar with the same precedence.

Note: If these changes impact your application, you must upgrade it to the latest version.

Chapter

66 Migration for Genesys Voice Platform: Enterprise Edition

This chapter provides information on how to migrate the Genesys Voice Platform: Enterprise Edition (GVP: EE) from GVP: EE 6.5.5, GVP: EE 7.0.2, or GVP: EE 7.0.3 to GVP: EE 7.2. The sections in this chapter are presented in the order you must upgrade the GVP: EE components:

Migration Strategy

The GVP 7.2 Solution Installer provides a Migration Wizard that will help you migrate GVP: EE 6.5.5, GVP: EE 7.0.2 and GVP: EE 7.0.3 configuration to GVP: EE 7.2. However the following limitations exist:

- If the previous GVP: EE release was configured manually, or you were using features that are no longer supported in GVP 7.2, you can either do a manual migration without using the Solution Installer (see "Migrating GVP: EE without Solution Installer" on page 1397) or you can use the Solution Installer to do a software update with no changes to the configuration (see "Migrating when Previous Deployment was Manually Installed" on page 1395).

- If you are using non-Media Resource Control Protocol (MRCP) speech engines, you can still use the migration wizard to upgrade, but you will have to configure new Automatic Speech Recognition (ASR) and Text-to-Speech (TTS) features. Refer to "Migrating Third-Party Software" on page 1384 for further details.

Migrating Third-Party Software

The third-party software described in the following sections should be upgraded. For further information on these products, consult your vendor.

Migrating from OSR to MRCP ASR

Uninstalling OSR 1.1.4/2.0

1. Go to `Control Panel > Administrative Tools > Services`, stop the `WatchDog` service and set the service `Startup type` to `Manual`.
2. Uninstall `SpeechWorks OSR 1.1.4/2.0` using `Add/Remove Programs`.
3. Backup existing license file.
4. Restart the computer.
5. Delete the existing SpeechWorks directory.
6. Restart the computer.

Upgrading to MRCP ASR

To upgrade to MRCP ASR, install the MRCP server software using the vendor's instructions. Confidence scores from applications may need to be recalibrated. Consult the MRCP vendor for details.

Note: If upgrading from OSR to MRCP ASR, change the Applications' ASR type in VPM.

Migrating from Speechify to MRCP TTS

Uninstalling Speechify 2.1.6/3.0.2

1. Go to `Control Panel > Administrative Tools > Services`, stop the `WatchDog` service, and set the service `Startup type` to `Manual`.
2. Uninstall `Speechify 2.1.6/3.0.2` voice fonts using `Add/Remove Programs`.
3. Uninstall `Speechify 2.1.6/3.0.2` software using `Add/Remove Programs`.

4. Restart the computer.

Upgrading to MRCP TTS

To upgrade to MRCP TTS, install the MRCP server software using the vendor's instructions. Consult the MRCP vendor for details.

Note: If upgrading from Speechify to MRCP TTS, change the TTS Vendor in VPM.

Migrating from RealSpeak to MRCP TTS

Uninstalling RealSpeak 3.5

1. Go to `Control Panel > Administrative Tools > Services`, stop the `WatchDog` service, and set the service `Startup type` to `Manual`.
2. Uninstall `RealSpeak 3.5` using `Add/Remove Programs`.
3. Restart the computer.

Upgrading to MRCP TTS

To upgrade to MRCP TTS, install the MRCP server software using the vendor's instructions. Consult the MRCP vendor for details.

Upgrading Dialogic

If you are migrating from GVP 7.0.2 or GVP 7.0.3 and you are already using Dialogic System Release 6.0, uninstall SR 6.0 and then follow the instructions in the *Genesys Voice Platform 7.2 Dialogic Deployment Guide* to install Dialogic SR 6.0 SU 6.5. Otherwise, perform the following steps:

1. Stop `Watchdog` and set the service `Startup type` to `Manual` through `Control Panel > Administrative Tools > Services > Watchdog`.
2. Save your Dialogic configuration files from your previous GVP: EE install. They are usually in the `Dialogic\cfg` and `Dialogic\data` folders, but you must verify with Intel/Dialogic to determine the exact paths.
3. Upgrade the Dialogic Software from SR 5.1.1 to SR 6.0 using the following steps:
   a. Uninstall all `Dialogic PTRs` using `Add/Remove Programs`.
   b. Uninstall `Dialogic Global Call Protocols` using `Add/Remove Programs`.
   c. Uninstall `Dialogic Server Pack` using `Add/Remove Programs`.
   d. Uninstall `Dialogic System Release` from `Start > Programs > Intel>Dialogic System Software`.

e. Install Dialogic 6.0 as specified in the *Genesys Voice Platform 7.2 Dialogic Deployment Guide*.

4. Work with Intel/Dialogic to convert Dialogic configuration files from SR 5.1.1 to SR 6.0. It is necessary to involve Intel/Dialogic in this step because the name and format of the files has changed from SR 5.1.1 to SR 6.0. At the end of this step, you should be able to establish communication between the Dialogic board and the Private Branch Exchange (PBX)/Telecom switch using the Dialogic Configuration Manager (DCM) and Intel diagnostics software without involving GVP software.

Migrating GVP: EE using Solution Installer

The following information pertains to migrating GVP: EE using the GVP Solution Installer.

Migrating when GVP:EE was previously installed

When migrating GVP: EE when previously installed using Solution Installer or GVP Configurator, use this section. This section describes how to use the Genesys Voice Platform Solution Installer to upgrade versions (6.5.5, 7.0.2, 7.0.3) of GVP: EE that have been installed using either the Solution Installer or the GVP Configurator.

The Solution Installer will run through the setup and will default to the pre-selected configurations of the prior GVP installation. However, this does not restrict you to manually setup a new configuration during the upgrade.You are free to make configuration changes to the new version of the GVP software.

The Solution Installer enables you to either upgrade, update or uninstall the currently installed version of GVP: EE.

The `Upgrade` option will migrate the DataStore, allow you to step through the configuration screens to confirm/change configuration information, uninstall the existing GVP: EE software, and install the current GVP: EE 7.2 software.

The `Update` option will enable you to make a quick upgrade without making any configuration changes. This option will migrate the DataStore, uninstall all components not supported by GVP: EE 7.2 and then will install/upgrade the previously installed components which are supported by GVP: EE 7.2.

The `Uninstall` option uninstalls all the installed GVP: EE components.

Below is an upgrade scenario of a Single box IP Telephony implementation using the GVP 7.2 Solution Installer. Screens will vary depending on your implementation and on the Features configured.

Notes:

- If you plan on upgrading GVP: EE, you must first stop the WatchDog service before launching the solution installer.
- If the installation is TDM-based, you must stop the Intel Dialogic System Service.
- Genesys does not recommend installation of its components through a Microsoft Remote Desktop connection. The installation should be performed locally.

In this upgrade example, TTS, ASR and IVR Server Client will be selected.

1. Insert the Genesys Voice Platform: Enterprise Edition DVD on an older pre-existing GVP installed machine.
2. Go to the <GVP CD directory> > solution_specific > windows > install > folder and double click the setup.bat file. The GVP: EE Solution Installer Maintenance screen opens (see Figure 44).

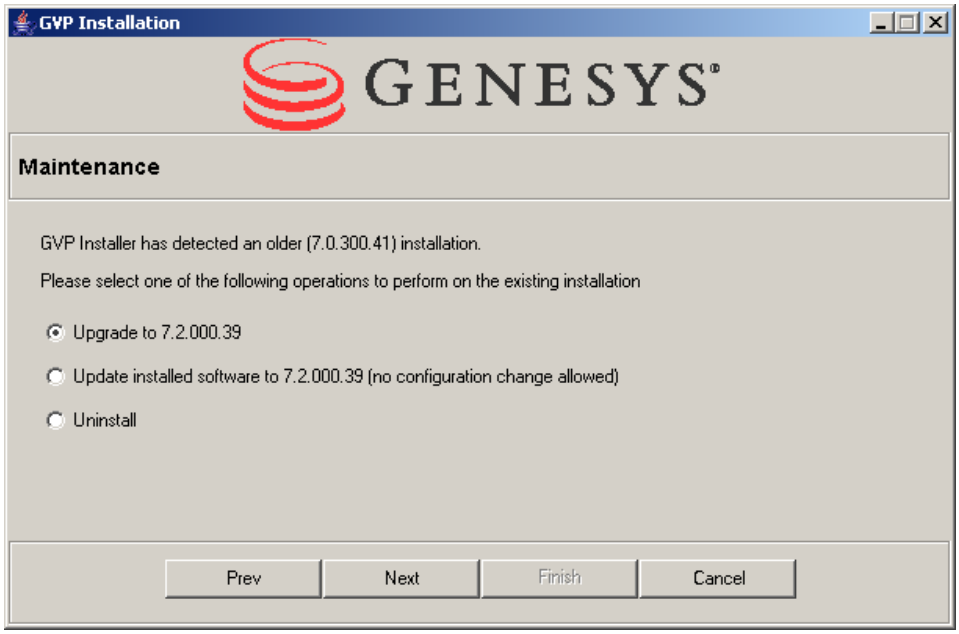

Figure 44: Maintenance Screen

3. Select Upgrade to... and click Next. The License Information screen opens (see Figure 45).

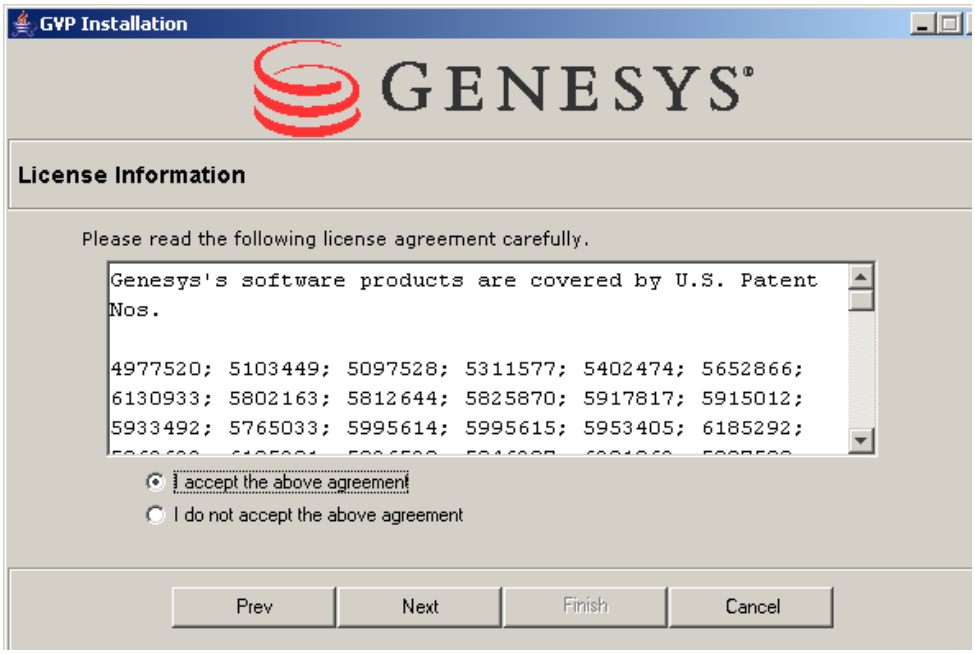

Figure 45: License Information Screen

4. Select `I accept the above agreement`, and then click `Next`. The `Installation Folder` screen opens (see Figure 46).

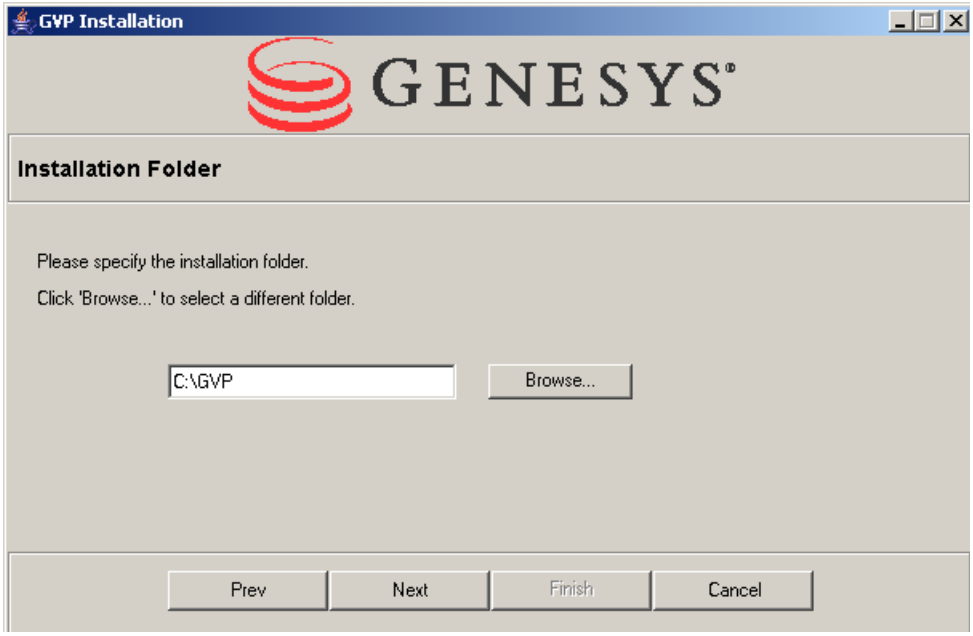

Figure 46: Installation Folder Screen

5. Accept the default path or click `Browse...` to specify the path to install GVP: EE. Click `Next`. The `Component Selection` screen for a Single or Multiple box install opens (see Figure 47).

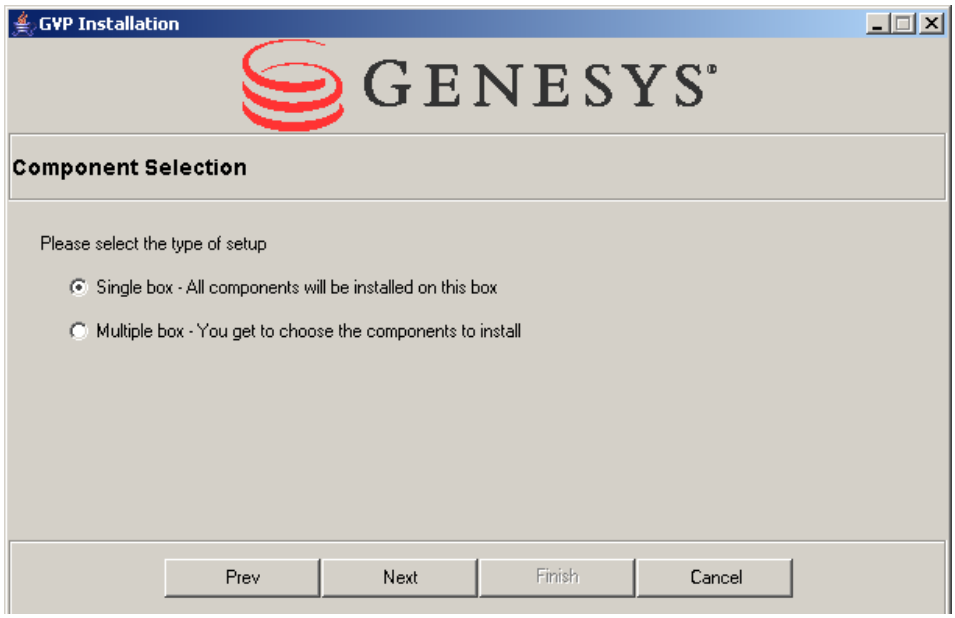

Figure 47: Component Selection Screen

6. Select `Single box...` and then click `Next`. The Telephony Based `Component Selection` screen opens (see Figure 48).

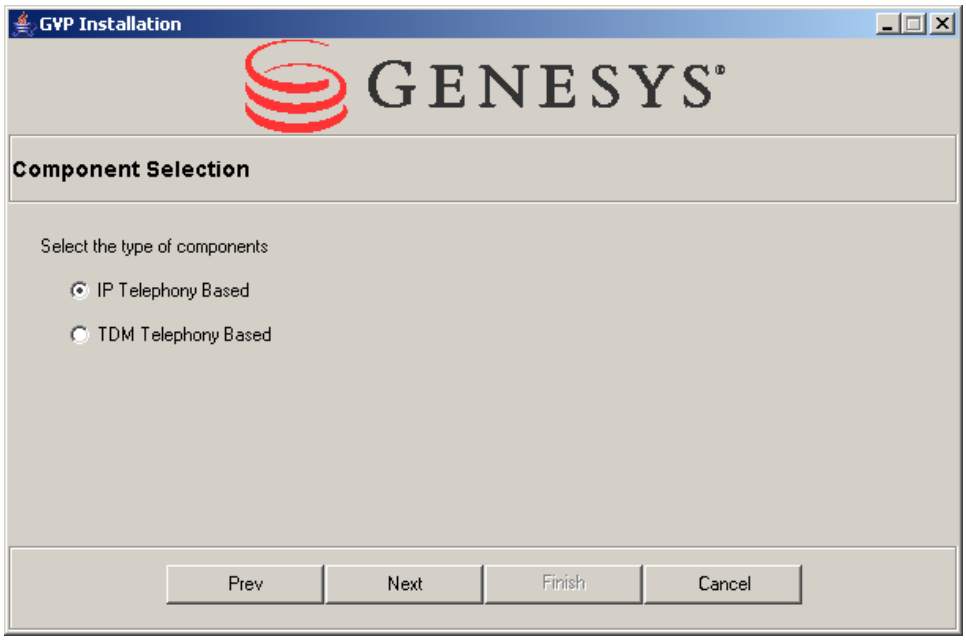

Figure 48: Component Selection (Telephony Based) Screen

7. In this example, we are following an IP Telephony-Based upgrade. Select `IP Telephony Based` and then click `Next`. The `Feature Selection` screen opens (see Figure 49).

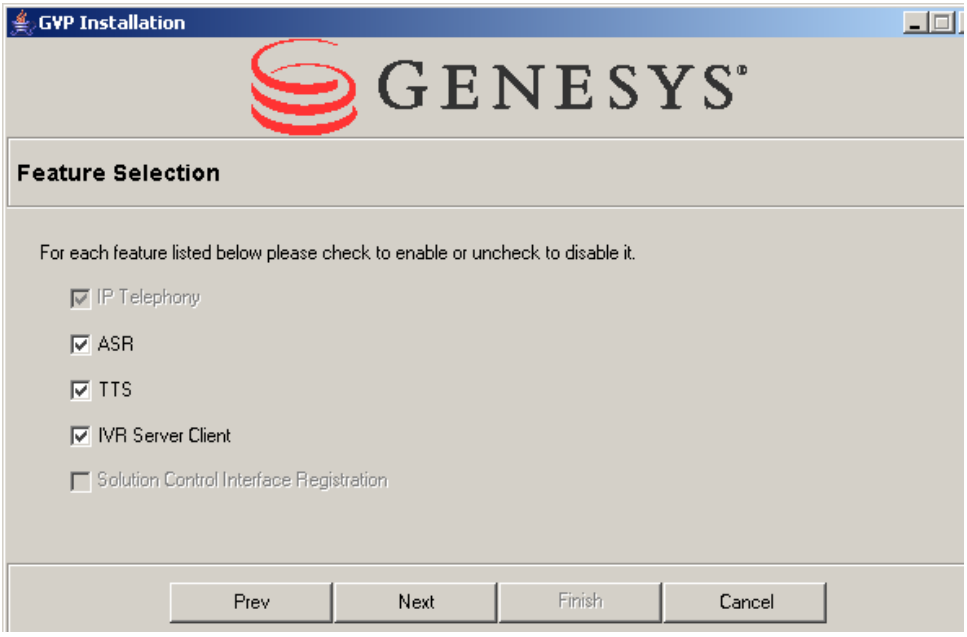

Figure 49: Feature Selection Screen

8. Select the features that you want to configure. If you do not want to configure these features as this time, you can clear the check boxes. You can still configure these features at a later time by re-running the `setup.bat` file.

   If you do not select a particular feature at this time (for example, IVR Server Client), no prompts occur during the configuration steps for that feature; however, the files for that feature will still be copied during the file-copy and installation steps.

   `ASR`, `TTS` and `IVR Server Client` have been selected in this example. Click `Next`. The IP Communication Server screen opens (see Figure 50).

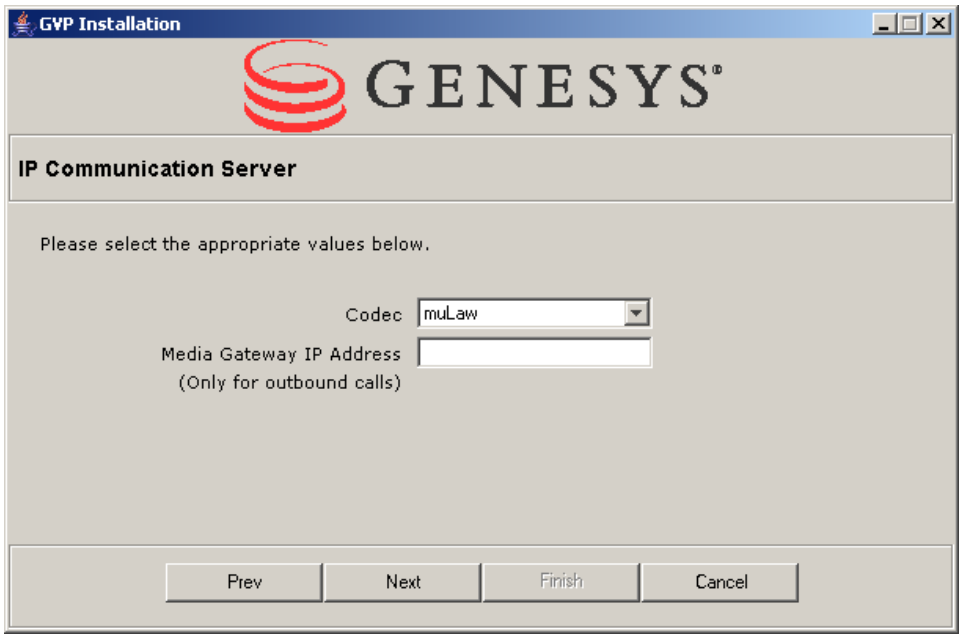

Figure 50: IP Communication Screen

9. From the `Codec` drop-down list, select `muLaw` or `aLaw`.

   The `Codec` value is usually `muLaw` in North America and Japan, and `aLaw` in other countries. Make sure that the Media Gateway and MRCP servers are using the same `Codec` value.

10. Enter the `Media Gateway IP Address` (for outbound calls only).

    You do not need to specify the IP address of the Media Gateway if the IPCS is going to process only inbound calls. For outbound calls, including transfers, you must specify the Media Gateway IP address. Outbound calls will fail if this value is not provided. Click `Next`.

11. The `ASR: MRCP Configuration` screen opens (see Figure 51).

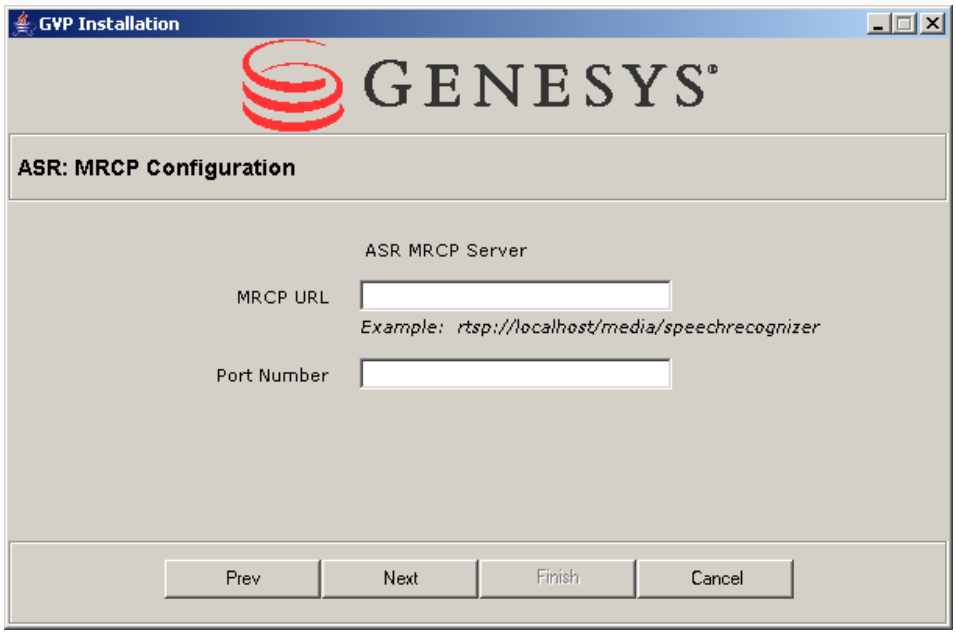

Figure 51: ASR: MRCP Configuration Screen

12. To enable MRCP ASR, enter the `MRCP URL` and `Port Number` for the ASR MRCP server.

    For the `MRCP URL` value, you must replace `Localhost` with the fully qualified domain name (FQDN) of the MRCP server. Consult the vendor's MRCP server documentation for additional information.

13. Click `Next`. The `TTS:MRCP Configuration` screen opens (see Figure 52).

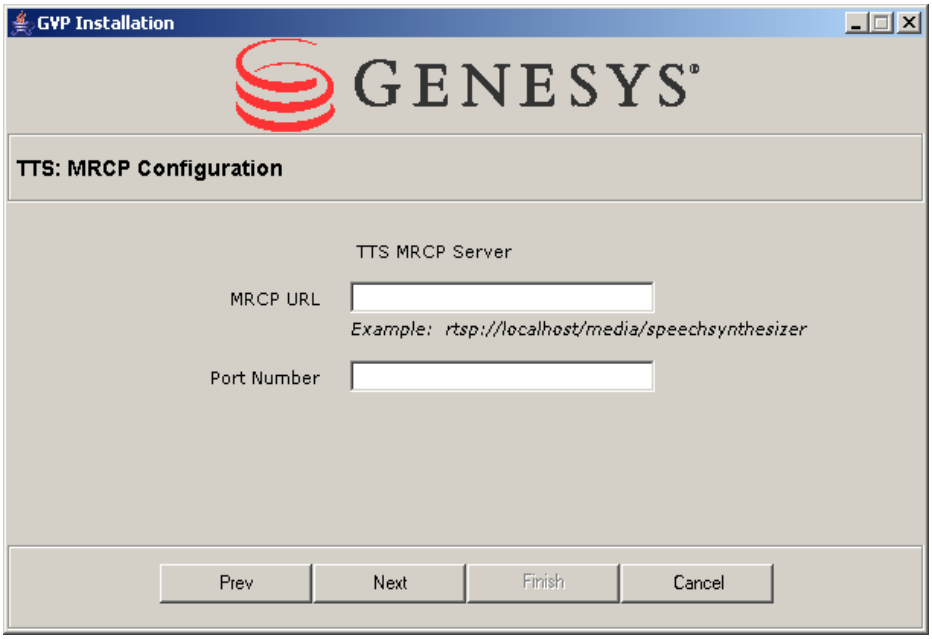

Figure 52: TTS: MRCP Configuration Screen

14. To enable MRCP TTS, enter the `MRCP URL` and `Port Number` for the TTS MRCP server.

    For the `MRCP URL` value, you must replace `Localhost` with the fully qualified domain name (FQDN) of the MRCP server. Consult the vendor's MRCP server documentation for additional information.

15. Click `Next`. The `IVR Server Client Configuration` screen opens (see Figure 53).

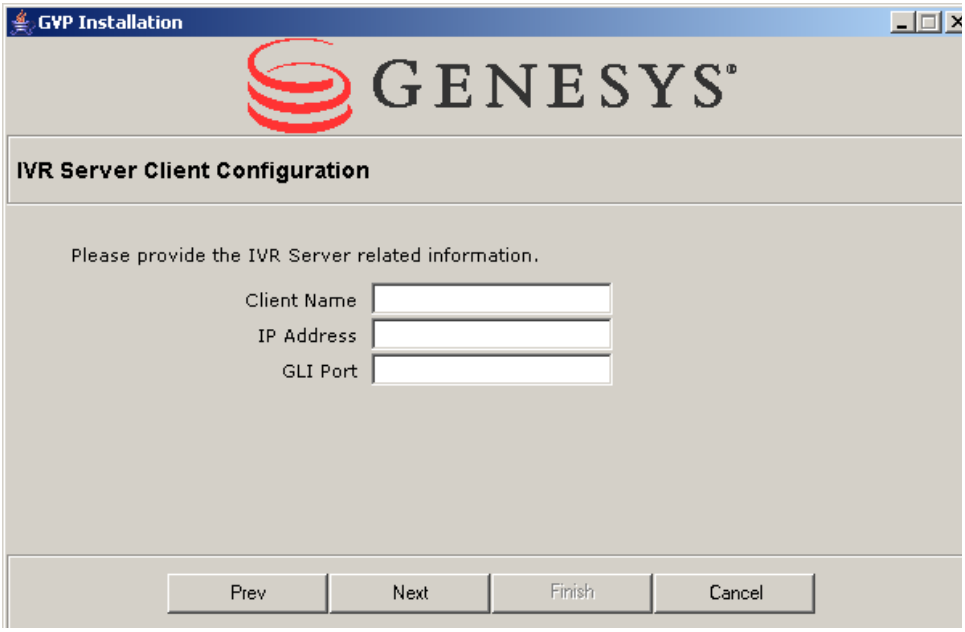

Figure 53: IVR Server Client Configuration Screen

16. Enter values for the IVR Server `Client Name`, `IP Address`, and `GLI port`.
    - `Client Name`: Name of the object defined for that IVR in Configuration Manager. The value is case-sensitive. For details, refer to the section about Integration with Genesys Framework in the *Genesys Voice Platform: Enterprise Edition 7.2 Reference Manual.*
    - `IP Address`: IP Address of the machine running the IVR Server.
    - `GLI Port`: Port number of the IVR Server. The value that you enter must be the same as the value specified in the gli-server-address option under the `gli_server_group_1` section for the TServer_IVR `Application` object defined for this IVR Server in Configuration Manager.

Note: The GDI Link Interface (GLI) layer is a subset of the Generic Data Interface (GDI) protocol from Telcordia (formerly Bellcore), and is the proprietary transport protocol used to structure TCP/IP messages. This layer is responsible for link-layer functions such as load balancing over multiple network interfaces, and connection-failure detection using keep-alive messages.

17. Click `Next`. The Configuration Summary screen opens (see Figure 54).

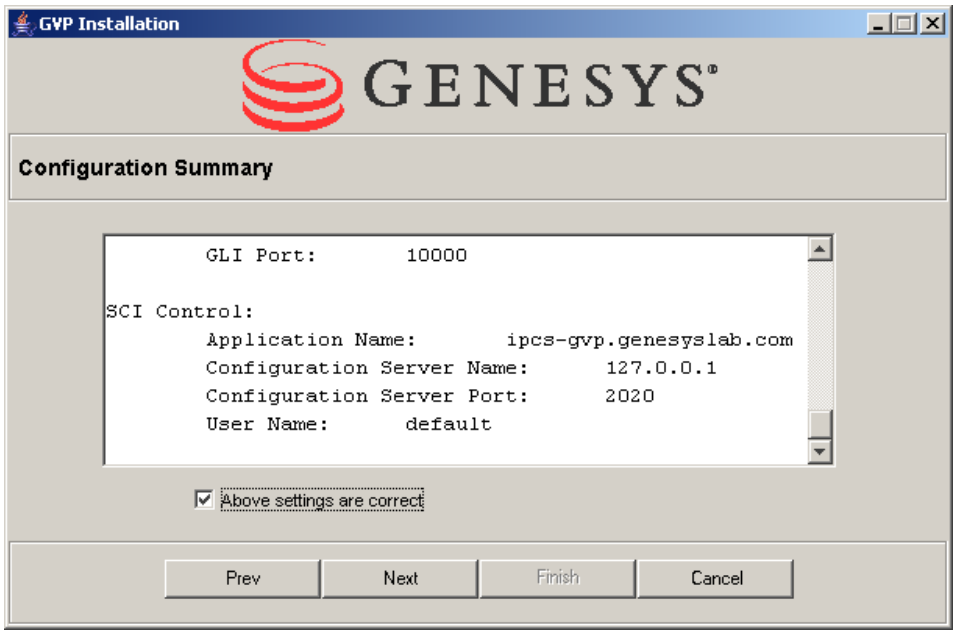

Figure 54: Configuration Summary Screen

18. Scroll down and carefully review the information on the `Configuration Summary` screen, to verify your configuration settings.
    - If they are not correct, use the `Prev` button to go back to the previous screens and make the necessary changes.
    - If they are correct, select the `Above settings are correct` check box and then click `Next`.
19. A series of `Status` screens open displaying the progress of the uninstall. A `Confirm Uninstall` screen opens and prompts `Do you want to completely remove the selected application and all of its features?`. Click `OK` to remove the installed features.
20. The Solution Installer then launches a series of setup programs displaying the progress of the installation. During VPM installation, you are prompted to restore a backup copy of the old database. Choose `Yes` in order to preserve your old configuration.
21. Also, during installation, when prompted for Username and Password, provide this information in the specified format:

    Username - `<domainname>\<username>`

    Password - `<password>`

    Click `OK` to proceed. The `Upgrade Result` screen opens (see Figure 55).

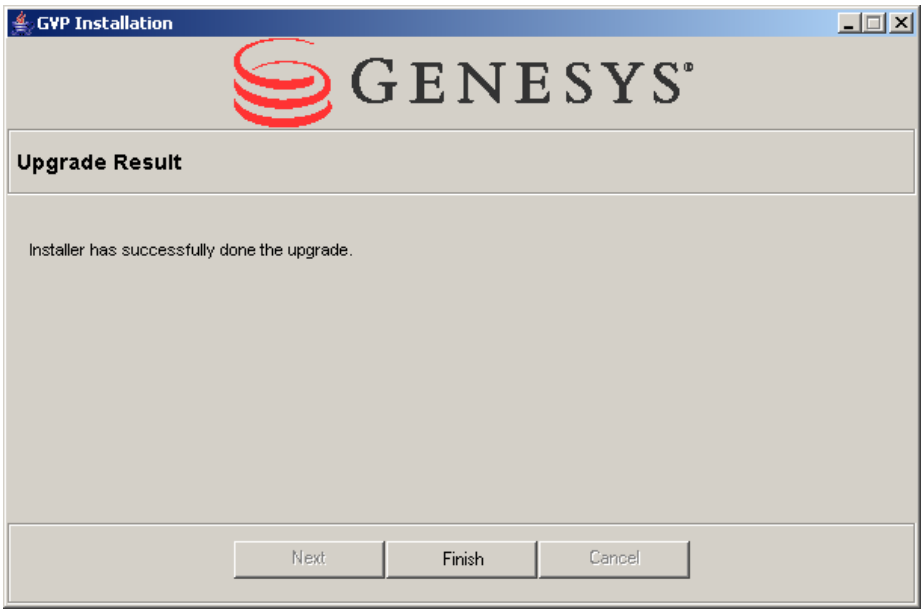

Figure 55: Upgrade Result Screen

22. Once the installation is complete, click `Finish`.
23. Restart your GVP: EE machine.

This completes the GVP: EE upgrade.

Migrating when Previous Deployment was Manually Installed

This section describes how to use the Genesys Voice Platform Solution Installer to upgrade versions (6.5.5, 7.0.2, 7.0.3) of GVP: EE that have been manually installed.

The Solution Installer enables you to either update or uninstall the currently installed version of GVP: EE.

The `Update` option will enable you to make a quick upgrade without making any configuration changes. This option will uninstall all components not supported by GVP: EE 7.2, and then will install/upgrade the previously installed components which are supported by GVP: EE 7.2.

The `Uninstall` option uninstalls all the installed GVP: EE components.

Notes:

- If you plan on upgrading GVP: EE, you must first stop the WatchDog service before launching the solution installer.
- Genesys does not recommend installation of its components through a Microsoft Remote Desktop connection. The installation should be performed locally.

To begin the update:

1. Insert the Genesys Voice Platform: Enterprise Edition DVD on an older pre-existing GVP installed machine.
2. Go to the <GVP CD directory> > solution_specific > windows > install > folder and double click the setup.bat file. The GVP: EE Solution Installer Maintenance screen opens (see Figure 56).

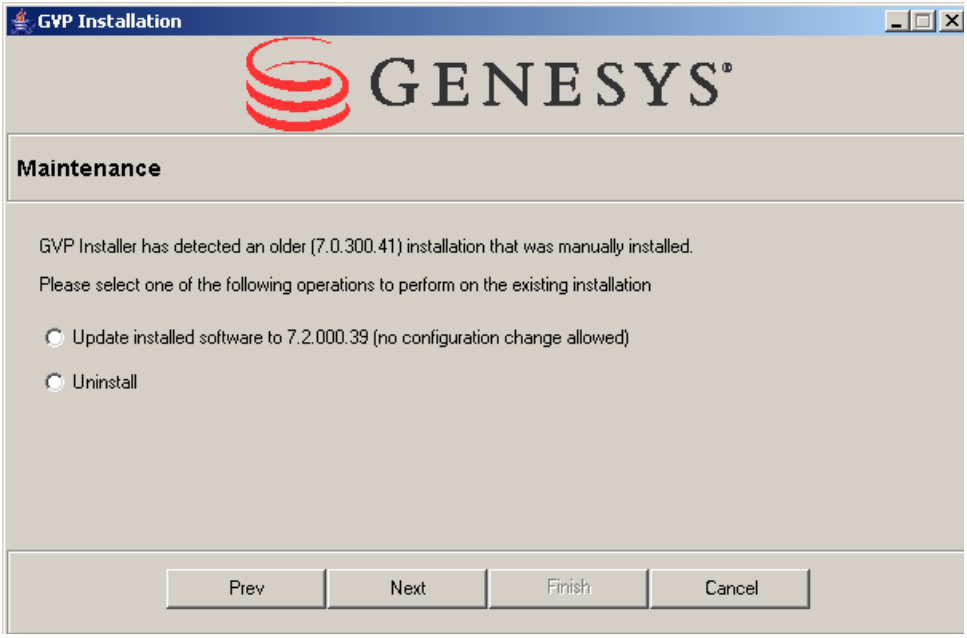

Figure 56: Maintenance Screen

3. Select Update installed software to... and then click Next.

   At this point, the Solution Installer will start data collection from the Registry to build a new 7.2 DataStore. A backup of this information will also be created in <installation directory>/installer/backup.
4. Uninstallation of the necessary components will proceed. After the uninstall is complete, the setup will automatically start the installation process launching a series of setup programs displaying the progress of the installation. During VPM installation, you are prompted to restore a backup copy of the old database. Choose Yes in order to preserve your old configuration.
5. Uninstallation of the necessary components will proceed. After the uninstall has completed, the setup will automatically start the installation process. Once the installation is complete, click the Finish button.

Migrating GVP: EE without Solution Installer

This section describes the steps necessary for performing a manual upgrade of GVP: EE.

If you have manually installed GVP: EE 6.5.5 or GVP: EE 7.0.3 or have modified the installation through VPM Server Explorer or modified the Dialogic files, the migration wizard in Solution Installer should not be used for migration to GVP: EE 7.2. In this case, follow the steps below:

1. Follow the steps described in the section "Upgrading Dialogic" on page 1385.
2. Uninstall Voice Portal Manager (VPM) using `Add/Remove Programs`.
3. Do not uninstall any other GVP components. Manually install the GVP: EE 7.2 components on top of the existing installation by following the steps in Appendix A of the *GVP: EE 7.2 Deployment Guide* (GVP: EE Manual Installation). The following points should be noted:
   a. When installing VPM, it prompts you about restoring the backup copy of the old database. Choose `Yes` in order to preserve your old configuration.
   b. From Appendix A of the *GVP: EE 7.2 Deployment Guide* (GVP: EE Manual Installation), you need to install VPM, GVP Core, Voice Communication Server (VCS), Text-to-Speech (TTS) and IVR Server Client.
   c. If you are upgrading from GVP: EE 6.5.5, after the GVP: EE 7.2 components are installed, the following steps need to be done:
      - Go to `Start > Run` and type `regedit` in the box. The Registry editor will open.
      - Navigate to `HKEY_LOCAL_MACHINE > Software > CallNet`. The list of parameters should appear on the right-hand side.
      - Select `ConfigFile`. Right-click and choose `Modify`.
      - Make note of the existing value and then change the value to `gvp.ini`.
      - Save the change and exit out of the registry editor.
      - Using Windows Explorer, navigate to the `config` directory under the GVP install directory. This is typically `C:\cn\config`.
      - Rename the .ini file (the one noted 3 steps above) to `gvp.ini`.
4. Because you restored the backup copy of the old (GVP 6.5.5/7.0.3) database, you do not need to configure GVP: EE as described in the following sections of Appendix A of the *GVP: Enterprise Edition 7.2 Deployment Guide*:
   a. Configuring GVP: EE for Behind-the-Switch.
   b. Configuring GVP: EE for In-front-of-the-Switch.

Note: To verify your configuration, follow the steps in Appendix A of the *GVP: EE 7.2 Deployment Guide*.

Chapter

67 Migration for Genesys Voice Platform: Developer's Edition

This chapter provides information on how to migrate the Genesys Voice Platform: Developer's Edition (GVP: DE) from GVP: DE 6.5.4 or 7.0.3 to GVP: DE 7.2. The sections in this chapter are presented in the order you must upgrade the GVP: DE components:

Migration Strategy

The Migration Wizard does not support migration of configuration information from previous versions of GVP: DE software to the current version. If you have a previously working version of GVP: DE, make note of the configuration information, and then uninstall the GVP software. Reboot the system and install the GVP: DE 7.2 software according to the instructions in the *Genesys Voice Platform: Developer's Edition 7.2 Deployment Guide*.

Note: If you were using non-Media Resource Control Protocol (MRCP) speech engines, you will have to configure new Automatic Speech Recognition (ASR) and Text-to-Speech (TTS) features that use MRCP.

Migrating Third-Party Software

The third-party software described in the following sections should be upgraded. For further information on these products, consult your vendor.

Migrating from OSR to MRCP ASR

Uninstalling OSR 1.1.4/2.0

1. Go to `Control Panel > Administrative Tools > Services`, stop the `WatchDog` service, and then set the service `Startup type` to `Manual`.
2. Uninstall `SpeechWorks OSR 1.1.4/2.0` using `Add/Remove Programs`.
3. Back up the existing license file.
4. Restart the computer.
5. Delete the existing SpeechWorks directory.
6. Restart the computer.

Upgrading to MRCP ASR

To upgrade to MRCP ASR, install the MRCP server software using the vendor's instructions. Confidence scores from applications may need to be recalibrated. Consult the MRCP vendor for details.

Note: If you are upgrading from OSR to MRCP ASR, change the applications' `ASR Type` in Voice Portal Manager (VPM).

Migrating from Speechify to MRCP TTS

Uninstalling Speechify 2.1.6/3.0.2

1. Go to `Control Panel > Administrative Tools > Services`, stop the `WatchDog` service, and then set the service `Startup type` to `Manual`.
2. Uninstall `Speechify 2.1.6/3.0.2` voice fonts using `Add/Remove Programs`.
3. Uninstall `Speechify 2.1.6/3.0.2` software using `Add/Remove Programs`.
4. Restart the computer.

Upgrading to MRCP TTS

To upgrade to MRCP TTS, install the MRCP server software using the vendor's instructions. Consult the MRCP vendor for details.

Note: If you are upgrading from Speechify to MRCP TTS, change the `TTS Vendor` on the Voice Application page in VPM.

Migrating from RealSpeak to MRCP TTS

1. Go to `Control Panel > Administrative Tools > Services`, stop the `WatchDog` service, and then set the service `Startup type` to `Manual`.
2. Uninstall `RealSpeak 3.5` using `Add/Remove Programs`.
3. Restart the computer.

Upgrading to MRCP TTS

To upgrade to MRCP TTS, install the MRCP server software using the vendor's instructions. Consult the MRCP vendor for details.

Migrating Genesys Voice Platform: Developer's Edition

This section describes the steps necessary for performing an upgrade of GVP: DE 6.5.4 or GVP: DE 7.0.3 to GVP: DE 7.2.

1. Uninstall your previous version of GVP: DE using Solution Installer or Add/Remove Programs.
2. Restart the machine.
3. Upgrade third-party ASR and TTS Speech Engines, if necessary, to MRCP compliant speech engines.
4. Install GVP: DE 7.2 using the Solution Installer. When installing VPM, it prompts you about restoring the backup copy of the old database. Choose `Yes` in order to preserve your old configuration.
5. Configure GVP: DE 7.2 as described in the *Genesys Voice Platform: Developer's Edition 7.2 Deployment Guide*.

Chapter

68 Migration for Genesys Voice Platform: Studio

This chapter provides information on how to migrate Genesys Voice Platform (GVP): Studio. It contains the following sections:

Migration Considerations

Before migrating your applications, you must take time to consider all of the requirements needed in your environment.

Windows 2003 Specifics

The following special settings are required for running applications on Windows 2003, IIS 6.0 Web Server.

Post data size limit

By default, in IIS 6.0, a default limit has been imposed on the amount of data that can be sent in HTTP POST. This setting must be changed if you use Recording or VAR.

Follow the steps below for changing the default limit of the POST data from 200K to 500MB. A limit of 500MB enables you to have recordings of up to 30 minutes long:

1. Open the `MetaBase.XML` file, which is located in `c:\Windows\System32\Inetsrv`. Find the line `AspMaxRequestEntityAllowed` and change the value to `524288000`.
2. This change does not require stopping IIS, but to make the `Metabase.xml` file writable, go to the IIS control panel, right click the server, select `Properties`, and select the check box `allow changes to MetaBase configuration while IIS is running`.

Note: These steps are also required on the IIS 6.0 server where the final Studio generated ASP application will be deployed. If the VAR Server is also deployed on Windows 2003, you must also change this configuration on the VAR Server side.

MIME Type Mappings

On Windows 2003, Multipurpose Internet Mail Extension (MIME) type needs to be added for serving audio and grammar files. The following mime types must be added:

1. .vox = application/octet-stream
2. .wav = application/octet-stream
3. .grxml = application/srgs+xml

VoiceXML 2.1 W3C R Support

Studio 7.2 and later generates VoiceXML that conform to the VoiceXML 2.1 W3C R specification (with Genesys Extensions to VoiceXML 2.1). Note the following:

1. The `Form Editor Schema validator` in the `Form` block now supports the full VoiceXML 2.1 specification (along with Genesys extensions). When you select `Normalize and Validate`, the validation errors are now reported in a validation window.
2. If the application uses inline grammars or embedded Speech Synthesis Markup Language (SSML) tags in the `FORM Editor` block, you might have to change them in order to make them conform to the VoiceXML 2.1 specification. Refer to "ASR Engine Support" and "TTS Engine Support" on page 1406 for more details.

VoiceXML 2.0 W3C R Support

Studio 7.0.3 generates VoiceXML that conforms to the VoiceXML 2.0 W3C R specification (with Genesys Extensions to VoiceXML 2.0). Note the following:

1. The Form Editor Schema validator in the Form block now supports the full VoiceXML 2.0 specification (along with Genesys extensions). When you select Normalize and Validate, the validation errors are now reported in a validation window.
2. If the application uses inline grammars or embedded Speech Synthesis Markup Language (SSML) tags in the FORM Editor block, you might have to change them to conform to the VoiceXML 2.0 specification. Refer to "ASR Engine Support" and "TTS Engine Support" on page 1406 for more details.

ASR Engine Support

For Studio 7.0.3 and later, all grammars generated by Studio in its blocks conform to the Speech Recognition Grammar Specification (SRGS) 1.0 specification. The following features have changed as a result:

- Studio now generates ASR engine neutral grammars for the Input, DB_INPUT, MENU and Treatment blocks. As a result, the ASR_ENGINE application setting variable (defined in the START block) is no longer used.
- If you use inline grammars in the FORM block, they must conform to the SRGS 1.0 specification.

If for some reason, the grammar that you specify does not conform to the SRGS 1.0 specification and you are sure that the syntax will work on the ASR engine that you are using in your application, you can override the validation in the FORM block. From the Tools Menu-<Options dialog box, select the Ignore Schema Validations check box. When this option is selected, Studio enables you to generate code for the Form block even if it contains validation errors. Make sure that you exercise great caution while using this option, as it could result in runtime errors if the syntax is incorrect.

- In the FORM block, the mixed initiative wizard now generates grammars conforming to the SRGS 1.0 specification.

Migrating Studio Applications from OSR 1.1.4 to OSR 2.0 or Later

Note: The following information is applicable only to Studio release 7.0.3.

If you are migrating your Studio developed applications from OSR 1.1.4 to OSR 2.0 or later, consider the following:

Confidence Scores

If you are migrating an application from Scansoft's OSR 1.1.4 to OSR 2.0 or later, and the application uses confidence scores, be aware that OSR 2.0 and later uses newly calibrated confidence scores for recognition results. This

might impact your application. Refer to the *Scansoft Speechworks OpenSpeech Recognizer 2.0 Migration Guide* for more details.

Migrating Studio Applications to MRCP ASR

If you are migrating your Studio developed applications to MRCP, consider the following:

Confidence Scores

If you are migrating an application to MRCP ASR and the application uses confidence scores, the confidence scores may have to be recalibrated. Consult the MRCP vendor for details.

TTS Engine Support

In Studio 7.0.3 and later, the `FORM` block supports SSML 1.0 in the schema validation. If the application uses embedded SSML tags in the `FORM` block, they must conform to the SSML 1.0 specification.

Note: If for some reason, the embedded SSML tags that you specify do not conform to the SSML 1.0 specification and you are certain that the syntax will work on the TTS engine that you are using in your application, you can override the validation in the `Form` block. From the `Tools Menu-<Options` dialog box, select the `Ignore Schema Validations` check box. When this option is selected, Studio enables you to generate code for the `FORM` block even if it contains validation errors. Make sure that you exercise great caution while using this option as it could result in runtime errors if the syntax is incorrect.

OSDM Support

Studio 7.0.3 and later supports Scansoft's OSDM 2.0.

In order to have OSDM 2.0.2 work with SWMS 3.1.x and OSR 3.0, the following configuration is required:

Set the following properties in the web.xml of the osdm2-core package:

- browser = genesys
- recognizer = osr3.0

In order to have OSDM 2.0 to work with OSR 2.0, the following configuration is required:

Set the following properties in the web.xml of the osdm2-core package:

- browser = genesys
- recognizer = osr2.0

You must be aware of the following when migrating applications from OSDM 1.0.x to OSDM 2.0:

1. In OSDM 2.0, the parameter passing mechanism changed and all input parameters are now passed using `namelist`. A new attribute has been added in the Studio `Subcallflow` block to allow passing parameters using `namelist`.
2. The URL for the OSDM 2.0 module is different from that of the OSDM 1.0 module. You must change the URL for invoking the OSDM in your applications. Refer to the Studio template applications and OSDM subcallflows for reference.
3. The input parameters when passed using `namelist` cannot contain "." in the name of the input parameter.
4. The ItemList OSDM is no longer present in OSDM 2.0.
5. The Core and Commerce OSDM are now part of a single package.
6. Pass the following parameters while invoking an OSDM from the application—see the template applications in Studio for examples:
   - dmname—this is required for Scansoft logging and has become a mandatory parameter in OSDM 2.0.
   - property_termchar—exclude so that the OSDM does not set the VoiceXML `termchar` property. The default value generated is `none`, which is invalid in MRCP.
7. If you need to pass VoiceXML properties or custom values to the OSDM as part of the input parameters, they must now be prefixed with `property_` and `custom_` respectively.
8. Refer to the *Scansoft SpeechWorks OpenSpeech DialogModules 2.0 Migration Guide* for more details.

Exception Handling

In Studio 7.0.3 and later, names of some of the Studio generated exceptions have changed. The upgrade takes care of changing the names for existing applications and no manual changes are required. Refer to Table 236.

Table 236: Exceptions

Old Name	New Name
DBERROR	error.com.genesys.studio.dberror
EMPTY_RECORDSET_ERROR	error.com.genesys.studio.emptyrecordset
ACCESS_NUMGET_ERROR	error.com.genesys.studio.accessnumgeterror
STATISTICS_ERROR	error.com.genesys.studio.statisticserror

Table 236: Exceptions (Continued)

Old Name	New Name
Nomatch_Final	error.com.genesys.studio.toomanynomatches
Noinput_Final	error.com.genesys.studio.toomanynoinputs

Note the following changes in behavior:

1. In case of a Studio generated error, detailed error information is now returned.
2. It is now possible to handle all application exceptions in the `Start` block. All local exceptions, if not handled at the block level, are now caught by the `Start` block. This is also applicable for the Studio generated exceptions. The same is also applicable for `Subcallflow`. If the exceptions are not handled by the `Subcallflow_Start` block, they get raised to the calling callflow.
3. A new `All` catch handler has been introduced in the `Start` block. This provides full control in the application for handling unexpected exceptions and events. Earlier, these used to get raised to the SystemRoot of the platform.
4. If the caller hangs up inside a subcallflow and the hangup event is connected to a `Return` block, the call terminates inside the subcallflow and no further pages are executed in the application.

Recording Support

In Studio 7.0.3 and later, it is now possible to use dynamic names for saving the recorded files. In order to do so, the `Capture` tab settings now appear in the `Record` block instead of the `Capture` block. This change automatically occurs during the upgrade, and no changes are required in the application.

In Studio 7.6, support for new audio formats has been added. Refer to Studio 7.6 Help file for the supported audio formats list.

Upgrading to Studio 7.6

Studio 7.6 applications work with the 7.6, 7.5, and 7.2 releases of the Genesys Voice Platform (GVP). For differences in behavior for a specific release of GVP, see the *Genesys Voice Platform 7.6 Studio Deployment Guide* and the *Studio 7.6 Help* file.

If you are migrating applications that were developed using Studio 6.5.5, 7.0.3, 7.2, or 7.5 to the 7.6 release, you need to be aware of the following:

1. You must migrate the platform to GVP 7.6.

2. Studio 7.6 applications perform on all editions of GVP 7.6, GVP 7.5, and GVP 7.2.

   If your application is targeted for GVP 7.2, open `Tools > Options`, and then select `GVP 7.2` from the `VXML Browser` drop-down list. Additional validation will be done at code generation time, and the generated code will be compliant with GVP 7.2.

   If your application is targeted for GVP 7.5, open `Tools > Options`, and select `GVP 7.5+` from the `VXML Browser` drop-down list. Additional validation will be done at code generation time, and the generated code will be compliant with GVP 7.5.

3. If the `VXML Browser` option is set to `GVP 7.5+`, VAR Events for Transfer blocks are generated as Start and Stop IVR Action events. This enables reporting of failure conditions. If you need to generate VAR Events as in previous versions, you must define the variable `reportitem_transferreportingflag` in the application START block, and set its value to `0`.

4. If you are migrating from Voice Portal Manager (VPM) to 7.6 GVP Element Management Provisioning System (EMPS), make sure that you use the 7.6 GVP EMPS Data Migration tool which is part of GVP 7.6 EMPS IP.

Upgrading to 7.6

When a Studio 6.5.5, 7.0.3 or 7.2 callflow is opened in Studio 7.6, it is upgraded to the new 7.6 release.

Notes: There is no automatic upgrade available for the underlying platform or any external grammars. You must upgrade GVP to the 7.6 release before upgrading the applications to Studio 7.6.

If the application uses Voice Application Reporting (VAR), note the name of the VAR Server prior to uninstalling Studio. The VAR Server name setting is not carried over by the upgrade.

To upgrade Studio 6.5.5, 7.0.3, 7.2, or 7.5 to Studio 7.6:

1. Uninstall the Genesys Voice Platform Studio components. Refer to the appropriate release of the *Genesys Voice Platform Genesys Studio Deployment Guide* for those instructions.
2. Delete the `VXMLStudioSimulation` and `VXMLStudio` virtual directories from the Internet Information Server (IIS).
3. Uninstall the VAR COM Client. For more information, refer to the appropriate release of the GVP Studio and VAR documentation.
4. Install the Genesys Voice Platform: Studio 7.6 software according to the instructions in the *Genesys Voice Platform 7.6 Studio Deployment Guide.*

5. Install the required VAR Clients according to the *Genesys Voice Platform 7.6 Voice Application Reporter Deployment and Reference Manual.*
6. Migrate applications created with prior releases of Studio. Open all of the Studio applications, and select `Yes` when prompted to convert these applications to GVP 7.6. In the case of subcallflows, Studio displays a list of associated `.vws` files and prompts you to upgrade these files.
7. Click `Yes` to confirm the upgrade.
8. When you upgrade, Studio takes a backup of all of the associated `.vws` files, upgrades them, and then saves them. It then displays an upgrade report showing the full details of all upgraded callflows and the backup location for these callflows.

Note: If you are using VAR for both ASP and JSP applications, the respective VAR Client must be installed on the Web Application Server separate from VAR 7.6.

Upgrading to Studio 7.5

Studio 7.5 applications work with the 7.5 and 7.2 releases of the Genesys Voice Platform (GVP). For differences in behavior for a specific release of GVP, see the *Genesys Voice Platform 7.5 Studio Deployment Guide* and the *Studio 7.5 Help* file.

If you are migrating applications that were developed using Studio 6.5.5, 7.0.3, or 7.2 to the 7.5 release, you need to be aware of the following:

1. You must migrate the platform to GVP 7.2 or 7.5.
2. Voice Application Reporter (VAR) Server and Clients are now bundled separately on the VAR DVD. The VAR Clients for Active Server Pages (ASP) and Java Server Pages (JSP) are included with VAR. The VAR Server name is now always configured in the VAR Client and not in the application as in previous versions of Studio. For JSP applications, you must explicitly configure the VAR Client port number. For upgraded applications, the VAR Client port is set to the default value of `9815`.
3. For JSP applications using the Studio DB blocks, the Java Database Connectivity (JDBC) drivers are now included with the Studio generated code, and do not need to be installed separately. Depending on the type of driver required, the database client software may need to be installed on the development or production servers. For more information, see the "Database Drivers" topic in the *Studio Help* file.
4. Studio no longer supports IBM Websphere 5.0. You must upgrade to IBM Websphere 6.0.
5. Studio generated Java Server Page (JSP) applications now require Java Development Kit (JDK) release 1.4.2 or higher.

6. Studio 7.5 applications perform on all editions of GVP 7.5 and GVP 7.2. If your application is targeted for GVP 7.2, open `Tools > Options`, and select `GVP 7.2` from the `VXML Browser` drop-down list. Additional validation will be done at code generation time, and the generated code will be compliant with GVP 7.2.
7. If the `VXML Browser` option is set to `GVP 7.5`, VAR Events for `Transfer` blocks are generated as Start and Stop IVR Action events. This enables reporting of failure conditions. If you need to generate VAR Events as in previous versions, you must define the variable `reportitem_transferreportingflag` in the application `START` block, and set its value to `0`.
8. If you are migrating from Voice Portal Manager (VPM) to 7.5 GVP Element Management Provisioning System (EMPS), make sure that when you provision an application, the `Default QueryString` is added for both Primary and Backup IVR URLs. EMPS does not add the `Default QueryString` to the application IVR URL automatically. If it is not added, the VAR reports will display zero for the call duration and empty values for ANI and DNIS.

Upgrading to 7.5

When a Studio 6.5.5, 7.0.3, or 7.2 callflow is opened in Studio 7.5, it is upgraded to the new 7.5 release.

Notes: There is no automatic upgrade available for the underlying platform or any external grammars. You must upgrade GVP to the 7.5 release before upgrading the applications to Studio 7.5.

If the application uses Voice Application Reporting (VAR), note the name of the `VAR Server` prior to uninstalling Studio. The `VAR Server` name setting is not carried over by the upgrade.

To upgrade Studio 6.5.5, 7.0.3, or 7.2 to Studio 7.5:

1. Uninstall the Genesys Voice Platform Studio components. For detailed instructions about each component, refer to the following guides:
   - *Genesys Voice Platform 7.2 Genesys Studio Deployment Guide*
   - *Genesys Voice Platform 7 Genesys Studio Deployment Guide*
   - *Genesys Voice Portal 6.5 Genesys Studio Developer's Guide*
2. Delete the `VXMLStudioSimulation` and `VXMLStudio` virtual directories from the Internet Information Server (IIS).
3. Uninstall the VAR COM Client. For more information, see the following guides:
   - *Genesys Voice Platform 7.2 Genesys Studio Deployment Guide*
   - *Genesys Voice Platform 7 Genesys Studio Deployment Guide*

- *Genesys Voice Portal 6.5 Genesys Studio Developer's Guide*

4. Install the Genesys Voice Platform: Studio 7.5 software according to the instructions in the *Genesys Voice Platform 7.5 Studio Deployment Guide.*
5. Install the required VAR Clients according to the *Genesys Voice Platform 7.5 Voice Application Reporter Deployment and Reference Manual.*
6. Migrate applications created with prior releases of Studio. Open all of the Studio applications, and select `Yes` when prompted to convert these applications to GVP 7.5. In the case of subcallflows, Studio displays a list of associated .vws files, and prompts you to upgrade these files.
7. Click `Yes` to confirm the upgrade.

   When you upgrade, Studio takes a backup of all of the associated .vws files, upgrades them, and then saves them. Studio then displays an upgrade report showing the full details of all upgraded callflows and the backup location for these callflows.

Note: If you are using VAR for both ASP and JSP applications, the respective VAR Client must be installed on the Web Application Server separate from VAR 7.5.

Upgrading to Studio 7.2

Studio 7.2 applications work only with the 7.2 release of the Genesys Voice Platform (GVP). For differences in behavior for a specific release of GVP, see the *Genesys Voice Platform 7.2 Genesys Studio Deployment Guide*, and the *Studio 7.2 Help* file.

If you are migrating applications that were developed using Studio 6.5.5 or 7.0.3 to the 7.2 release, you need to be aware of the following:

1. You must migrate the platform to GVP 7.2.
2. GVP 7.2 and later interface with ASR engines only with the Media Resource Control Protocol (MRCP) interface. You must upgrade to one of the MRCP ASR engines that GVP 7.2 supports.
3. GVP 7.2 and later interface with the TTS engines with the MRCP interface. You must upgrade to one of the MRCP TTS engines that GVP 7.2 supports.
4. GVP 7.2 and later no longer support OSR 2.0, Realspeak 3.5, and Speechify 3.0.

Note: Studio 7.2 and later support MRCP ASR and TTS only. It does not support OSR 2.0.

5. Studio 7.2 and later use the VoiceXML session variables to access the `ScriptId` that is passed from the URS Strategy. If no value is received, the `ScriptId` value is set to `undefined`. If you are using `$sid$` as a condition in the `Branching` block, change the condition's value to `undefined` to match the default case.
6. Studio 7.2 and later Active Server Page (ASP) and JSP applications generate explicit cache-control headers that expire immediately. Studio does not generate cache-control headers for audio files, external grammars, and javascript files. These files must be configured on the web application server configuration.
7. Studio 7.2 and later no longer shows the predefined global variables (for example, `ScriptId` and `LAST_EVENT_NAME`) on the `Application Settings` tab of the `START` and `SubCallflow_Start` blocks. However, these variables are still available for selection in the drop-down list when selecting dynamic variables.

Upgrading Studio to 7.2

When a Studio 6.5.5 or 7.0.3 callflow is opened in Studio 7.2, it is upgraded to the new 7.2 release.

Notes: There is no automatic upgrade available for the underlying platform or any external grammars. You must upgrade GVP to the 7.2 release before upgrading the applications to Studio 7.2.

If the application uses Voice Application Reporter (VAR), note the name of the `VAR Server` prior to uninstalling Studio. The `VAR Server` name setting is not carried over by the upgrade.

To upgrade Studio 6.5.5 or 7.0.3 to Studio 7.2:

1. Uninstall the Genesys Voice Platform Studio components. For detailed instructions on each component, refer to the following guide:
   - *Genesys Voice Platform 7 Genesys Studio Deployment Guide*
   - *Genesys Voice Portal 6.5 Genesys Studio Developer's Guide*
2. Delete the `VXMLStudioSimulation` and `VXMLStudio` virtual directories from the Internet Information Server (IIS).
3. Uninstall the VAR COM Client.
4. Install the Genesys Voice Platform: Studio 7.2 software according to the instructions in the *Genesys Voice Platform 7.2 Genesys Studio Deployment Guide*.
5. If you are using VAR for ASP applications, install the VAR COM Client from the Studio/VARCom folder.

6. Migrate applications created with prior releases of Studio. Open all of the Studio applications, and select `Yes` when prompted to convert these applications to GVP 7.2. In the case of subcallflows, Studio displays a list of associated .vws files, and prompts you to upgrade these files.
7. Click `Yes` to confirm the upgrade.

   When you upgrade, Studio takes a backup of all of the associated .vws files, upgrades them, and then saves them. It then displays an upgrade report showing the full details of all upgraded callflows, and the backup location for these callflows.

Upgrading to Studio 7.0.3

Studio 7.0.3 applications work only with GVP 7.0.3. For differences in behavior for a specific release of GVP, see the *Genesys Voice Platform 7 Genesys Studio Deployment Guide*, and the *Studio 7 Help* file. If you are migrating applications developed using Studio 6.5.5 to the Studio 7.0.3 release, you need to be aware of the following:

1. You must migrate the platform to GVP 7.0.3.
2. GVP 7.0.3 no longer supports Scansoft's OSR (Open Speech Recognizer)1.1.4 Automatic Speech Recognition (ASR) engine. If the application is using OSR 1.1.4, you must upgrade the ASR engine to either Scansoft's OSR 2.0 or to one of the Media Resource Control Protocol (MRCP) ASR engines that GVP 7.0.3 supports. Also note that the OSR 2.0 ASR engine is only supported by GVP: EE 7.0.3 (VCS only).
3. GVP 7.0.3 no longer supports the Nuance 8.0 ASR engine. If the application is using Nuance 8.0, you must migrate to one of the MRCP ASR engines that GVP 7.0.3 supports.
4. Studio 7.0.3 and later versions support Scansoft's OpenSpeech DialogModule (OSDM) 2.0. If the application is using OSDM 1.x, you must upgrade the OSDM to OSDM 2.0.
5. GVP 7.0.3 and later no longer supports the Speechify 2.1.6 Text-to-Speech (TTS) engine. If you are using Speechify 2.1.6, you must upgrade to Speechify 3.0 or to one of the MRCP TTS engines that GVP 7.0.3 supports by GVP 7.0.3.
6. Studio 7.0.3 and later no longer supports MySQL database in the DB blocks.
7. Studio 7.0.3 and later no longer supports Oracle 8i in the DB blocks. If the application uses Oracle 8i, you must upgrade to Oracle 9i.
8. Studio 7.0.3 and later no longer supports Access 2000 in the DB blocks. If the application uses Access 2000, you must upgrade to Access 2003.

9. Studio 7.0.3 and later have the ability to propagate events from the subcallflows to the main callflow in order to handle exceptions at the main callflow. Genesys recommends that exceptions be handled in the main callflow instead of the subcallflow.
10. The `Configure to Go Live` option has been removed from Studio 7.0.3. If you are migrating from Studio for GVP: EE and GVP: DE to Studio 7.0.3 or later, you must now deploy the application to a web application server, and then provision it in VPM for making calls.

Upgrading to 7.0.3

When a Studio 6.5.5 callflow is opened in Studio 7.0.3, it is upgraded to the new 7.0.3 release.

Notes: There is no automatic upgrade available for the underlying platform or any external grammars. You must upgrade GVP to the 7.0.3 release before upgrading the applications to Studio 7.0.3.

If the application uses Voice Application Reporter (VAR), note the name of the `VAR Server` prior to uninstalling Studio. The upgrade process does not carry over the `VAR Server` name setting.

To upgrade Studio 6.5.5 to 7.0.3:

1. Uninstall the Genesys Voice Platform Studio 6.5.5 components. Refer to the *Genesys Voice Portal 6.5.Genesys Studio Developer's Guide* for detailed instructions on each component.
2. After uninstalling the previous release of Studio, make sure that the `VXMLStudioSimulation` virtual directories have been removed from Internet Information Server (IIS).
3. Uninstall the VAR COM Client.
4. Install the Genesys Voice Platform Studio 7.0.3 software according to the instructions in the *Genesys Voice Platform 7 Genesys Studio Deployment Guide.*
5. If you are using the Voice Application Reporter, install the VAR COM Client for ASP applications.
6. To migrate applications created with Studio 6.5.5, open all of the Studio applications, and select `Yes` when prompted to convert these applications to GVP: EE 7.0.3. In the case of subcallflows, Studio displays a list of associated .vws files and prompts you to upgrade these files.
7. Click `Yes` to confirm the upgrade. When you upgrade, Studio takes a backup of all of the associated .vws files, upgrades them, and then saves them. Studio then displays an upgrade report showing the full details of all upgraded callflows and the backup location for these callflows.

Chapter

69 Migration for Genesys Voice Platform: VAR

This chapter provides information on how to upgrade Genesys Voice Platform (GVP): Voice Application Reporter (VAR). It contains the following sections:

Upgrading VAR to 7.6

Windows

To upgrade Voice Application Reporter (VAR) Server 6.5.5, 7.0.3, 7.2, or 7.5 to VAR Server 7.6:

1. Stop posting events to the VAR Server.
2. Run the VAR Server for two cycles in order to process all the posted events. If events still exist, back up these files.
3. Stop the AppReporter scheduled task.
4. Backup the VAR Database.
5. Backup the VAR log files.
6. Uninstall the existing Genesys Voice Platform VAR components. For more detailed instructions, see the *Genesys Voice Platform 7.2 Genesys Studio Deployment Guide,* the *Genesys Voice Platform 7 Genesys Studio Deployment Guide,* or the *Genesys Voice Portal 6.5 Genesys Studio Developer's Guide.*

7. Install the Genesys Voice Platform Voice Application Reporter 7.6 software according to the instructions in the *Genesys Voice Platform 7.6 Voice Application Reporter Deployment and Reference Manual.*
8. Stop the AppReporter scheduled task.

> **Note:** The installation process automatically starts the AppReporter scheduled task.

9. Make the required configuration changes using the VAR Server Administration GUI. For more information about configuring VAR, see the *Genesys Voice Platform 7.6 Voice Application Reporter Deployment and Reference Manual.*
10. If using an MSSQL Database:

> **Note:** Consult with your Database Administrator (DBA) for assistance.

   a. Open Query Analyzer, and log in as `varuser`.
   b. In Query Analyzer, if upgrading from 7.2, open the `<installdir>\db_scripts\mssql\upgrade_var_mssql_7_2_0_to_7_5_0.sql file`.
   c. If upgrading from 7.0.3, open the `<installdir>\db_scripts\mssql\upgrade_var_mssql_7_0_3_to_7_5_0.sql file`.
   d. If upgrading from 6.5.5, open the `<installdir>\db_scripts\mssql\upgrade_var_mssql_6_5_5_to_7_5_0.sql file`.
   e. From the database drop-down list, select `VoiceAppRptr` as the database.
   f. Run the script.

11. If using an Oracle Database:
   a. Login to Oracle SQL*Plus as `varuser`.
   b. Enter the following: `@<installdir>\db_scripts\oracle\upgrade_var_oracle_7_2_0_to_7_5_0.sql`

> **Note:** VAR releases 6.5.5 and 7.0.3 are not available for the Oracle database.

   c. After the installation script successfully executes, type `commit;`.

> **Note:** Because there is no schema change between 7.5 and 7.6 in VAR Server, there are no upgrade scripts for 7.5 to 7.6 and the existing database can be used by 7.6.

12. Start the AppReporter scheduled task.

13. Verify that the VAR cycles are running.

Solaris

To upgrade Voice Application Reporter (VAR) Server 7.2 to VAR Server 7.6:

1. Stop posting events to the VAR Server.
2. Run the VAR Server for two cycles in order to process all of the posted events. If events still exist, back up these files.
3. Stop the VAR Cron Job (see "Starting and Stopping Solaris Cron Jobs" on page 1422).
4. Back up the VAR log files.
5. Install the Genesys Voice Platform Voice Application Reporter 7.6 software and choose the upgrade option according to the instructions in the *Genesys Voice Platform 7.6 Voice Application Reporter Deployment and Reference Manual.*
6. Log in to Oracle SQL*Plus as `varuser`.
7. Enter the following:
   `@<installdir>\db_scripts\oracle\upgrade_var_oracle_7_2_0_to_7_5_0.sql`

   Note: Because there is no schema change between 7.5 and 7.6 in VAR Server, there are no upgrade scripts for 7.5 to 7.6 and the existing database can be used by 7.6.

8. After the installation script successfully executes, type `commit;`.
9. Start the VAR Cron Job (see "Starting and Stopping Solaris Cron Jobs" on page 1422).
10. Verify that the VAR cycles are running.

Upgrading VAR to 7.5

Genesys Voice Platform Voice Application Reporter 7.5 works with the 7.5 and 7.2 releases of the Genesys Voice Platform (GVP). For information on supported Operating Systems, software, and databases, see the *Genesys Voice Platform 7.5 Voice Application Reporter Deployment and Reference Manual*.

Migration Considerations

1. You must migrate the platform to GVP 7.5.
2. Voice Application Reporter (VAR) is no longer included on the Studio DVD.

3. You must use Java Development Kit (JDK) release 1.4.2 or higher.
4. The subcallflow and transfer events have been renamed to IVR Actions, and the Subcallflow reports have been renamed to IVR Action reports.
5. VAR now supports the IBM DB2 UDB, and Oracle 10g R2 Databases.
6. In Studio 7.5, if the `VXML Browser` option is set to `GVP 7.5`, VAR events for `Transfer` blocks are generated as Start and Stop IVR Action events. This enables reporting of failure conditions. If you need to generate VAR events as in the same manner as previous versions, you must define the variable `reportitem_transferreportingflag` in the application `START` block, and set its value to `0`.

Windows

To upgrade Voice Application Reporter (VAR) Server 6.5.5, 7.0.3, 7.2 to VAR Server 7.5:

1. Stop posting events to the VAR Server.
2. Run the VAR Server for two cycles in order to process all the posted events. If events still exist, back up these files.
3. Stop the AppReporter scheduled task.
4. Backup the VAR Database.
5. Backup the VAR log files.
6. Uninstall the existing Genesys Voice Platform VAR components. For more detailed instructions, see the *Genesys Voice Platform 7.2 Genesys Studio Deployment Guide*, the *Genesys Voice Platform 7 Genesys Studio Deployment Guide,* or the *Genesys Voice Portal 6.5 Genesys Studio Developer's Guide*.
7. Install the Genesys Voice Platform Voice Application Reporter 7.5 software according to the instructions in the *Genesys Voice Platform 7.5 Voice Application Reporter Deployment and Reference Manual*.
8. Stop the AppReporter scheduled task.

> **Note:** The installation process automatically starts the AppReporter scheduled task.

9. Make the required configuration changes using the VAR Server Administration GUI. For more information on configuring VAR, see the *Genesys Voice Platform 7.5 Voice Application Reporter Deployment and Reference Manual*.
10. If using an MSSQL Database:

Note: Consult with your Database Administrator (DBA) for assistance.

a. Open Query Analyzer, and log in as `varuser`.
b. In Query Analyzer, if upgrading from 7.2, open the `<installdir>\db_scripts\mssql\upgrade_var_mssql_7_2_0_to_7_5_0.sql` file.

   If upgrading from 7.0.3, open the

   `<installdir>\db_scripts\mssql\upgrade_var_mssql_7_0_3_to_7_5_0.sql` file.

   If upgrading from 6.5.5, open the

   `<installdir>\db_scripts\mssql\upgrade_var_mssql_6_5_5_to_7_5_0.sql` file.
c. From the database drop-down list, select `VoiceAppRptr` as the database.
d. Run the script.

11. If using an Oracle Database:
    a. Login to Oracle SQL*Plus as `varuser`.
    b. Enter `@<installdir>\db_scripts\oracle\upgrade_var_oracle_7_2_0_to_7_5_0.sql`.

Note: VAR releases 6.5.5 and 7.0.3 are not available for the Oracle database.

    c. After the installation script successfully executes, type `commit;`.
12. Start the AppReporter scheduled task.
13. Verify that the VAR cycles are running.

Solaris

To upgrade Voice Application Reporter (VAR) Server 7.2 to VAR Server 7.5:

1. Stop posting events to the VAR Server.
2. Run the VAR Server for two cycles in order to process all the posted events. If events still exist, back up these files.
3. Stop the VAR Cron Job (see “Starting and Stopping Solaris Cron Jobs” on page 1422).
4. Backup the VAR log files.
5. Install the Genesys Voice Platform Voice Application Reporter 7.5 software and choose the upgrade option according to the instructions in the *Genesys Voice Platform 7.5 Voice Application Reporter Deployment and Reference Manual*.
6. Login to Oracle SQL*Plus as varuser.

7. Enter `@<installdir>\db_scripts\oracle\upgrade_var_oracle_7_2_0_to_7_5_0.sql`.
8. After the installation script successfully executes, type `commit;`.
9. Start the VAR Cron Job (see "Starting and Stopping Solaris Cron Jobs" on page 1422).
10. Verify that the VAR cycles are running.

Starting and Stopping Solaris Cron Jobs

1. Open a Solaris Login shell using the root account.
2. Type `crontab -e` to open the crontab file in the editor.
3. Locate the line `# Added by Voice Platform Application Reporter to invoke VAR consolidator every three minutes. Do not edit manually.`
4. To start the Cron Job, remove the comment (`#`) character on the next line so it reads as follows:

   ```
   0,3,6,9,12,15,18,21,24,27,30,33,36,39,42,45,48,51,54,57 * * * * (cd /opt/genesys/gvp/cn/gvpapplicationreporter/php/var_engine; ./var_engine.sh).
   ```

5. To stop the Cron job, add the comment (`#`) character on the next line so it reads as follows:

   ```
   0,3,6,9,12,15,18,21,24,27,30,33,36,39,42,45,48,51,54,57 * * * * (cd /opt/genesys/gvp/cn/gvpapplicationreporter/php/var_engine; ./var_engine.sh).
   ```

6. Save the file and quit the editor.

Upgrading VAR to 7.2

Windows

To upgrade Voice Application Reporter (VAR) Server 6.5.5 or 7.0.3 to VAR Server 7.2:

1. Stop posting events to the VAR Server.
2. Run the VAR Server for two cycles in order to process all the posted events. If events still exist, back up these files.
3. Stop the AppReporter scheduled task.
4. Backup the VAR Database.
5. Backup the VAR log files.

6. Uninstall the existing Genesys Voice Platform VAR components. For more detailed instructions, see the *Genesys Voice Platform Genesys Studio Deployment Guide*.
7. Install the Genesys Voice Platform Voice Application Reporter 7.2 software according to the instructions in the *Genesys Voice Platform 7.2 Genesys Studio Deployment Guide*.
8. Stop the AppReporter scheduled task.

   Note: The installation process automatically starts the AppReporter scheduled task.

9. Complete the required configuration changes using the VAR Server Administration GUI. For more information on configuring VAR, see the *Genesys Voice Platform 7.5 Voice Application Reporter Deployment and Reference Manual*.
10. Open Query Analyzer, and log in as `varuser`.
11. In Query Analyzer, if upgrading from 7.0.3, open the

    `<installdir>\db_scripts\mssql\upgrade_var_mssql_7_0_3_to_7_2_0.sql` file.

    If upgrading from 6.5.5, open the

    `<installdir>\db_scripts\mssql\upgrade_var_mssql_6_5_5_to_7_2_0.sql` file.
12. From the database drop-down list, select `VoiceAppRptr` as the database.
13. Run the script.
14. Start the AppReporter scheduled task.
15. Verify that the VAR cycles are running.

Upgrading VAR to 7.0.3

Windows

To upgrade Voice Application Reporter (VAR) Server 6.5.5 to VAR Server 7.0.3:

1. Stop posting events to the VAR Server.
2. Run the VAR Server for two cycles in order to process all the posted events. If events still exist, back up these files.
3. Stop the AppReporter scheduled task.
4. Backup the VAR Database.
5. Backup the VAR log files.

6. Uninstall the existing Genesys Voice Platform VAR components. For more detailed instructions, see the *Genesys Voice Portal 6.5 Studio Deployment Guide*.
7. Install the Genesys Voice Platform Voice Application Reporter 7.0.3 software according to the instructions in the *Genesys Voice Platform 7 Genesys Studio Developer's Guide*.
8. Stop the AppReporter scheduled task.

   Note: The installation process automatically starts the AppReporter scheduled task.

9. Complete the required configuration changes using the VAR Server Administration GUI. For more information on configuring VAR, see the *Genesys Voice Platform 7.5 Voice Application Reporter Deployment and Reference Manual*.
10. Open Query Analyzer, and log in as `varuser`.
11. In Query Analyzer open the following file:
    `<installdir>\db_scripts\mssql\upgrade_var_mssql_7_0_3.sql`
12. From the database drop-down list, select `VoiceAppRptr` as the database.
13. Run the script.
14. Start the AppReporter scheduled task.
15. Verify that the VAR cycles are running.

Part

23 Genesys Voice Platform 8.x Migration

The chapters in this section describe the migration process from Genesys Voice Platform (GVP) 8.0 to later releases of GVP 8.x and the upgrade process from GVP 7.6 and VoiceGenie (VG) 7.x to GVP 8.1.x.

This part contains the following chapters:

- Chapter 70, "Upgrading to GVP 8.x," on page 1427 describes the preliminary migration procedures and the migration order for GVP 8.1.x and 8.x releases to the current GVP release. It also includes information to consider if you are migrating multi-tenant environments.
- Chapter 71, "Changes in GVP 8.x," on page 1445 provides information about the changes in components, configuration options, and the Reporting Server database in GVP 8.1.x and 8.x releases.
- Chapter 72, "Migration Procedures for GVP 8.x," on page 1559 provides the procedures that describe how to migrate GVP 8.1.x and GVP 8.x releases to the current GVP release.
- Chapter 73, "Migration Procedures for GVP 7.6 and VG 7.x," on page 1597 presents the procedures that describe how to migrate from GVP 7.6 and VG 7.x to GVP 8.1.x. It also contains component and Interactive Voice Response (IVR) Server configuration mappings, and Simple Network Management Protocol (SNMP) trap mappings.

Chapter

70 Upgrading to GVP 8.x

This chapter describes the preliminary migration procedures and the migration order for Genesys Voice Platform (GVP) 8.x. It contains the following sections:

Upgrading to GVP 8.5

Read about preliminary migration procedures to all versions of GVP 8.5 in "Migrating to GVP 8.5" at the Genesys Documentation website.

Preliminary Migration Procedures

The migration process includes the following preliminary procedures for GVP 8.x:

1. Review the "Migration Roadmap" chapter of this guide.
2. Examine the order in which the Genesys software that is required for GVP 8.x should be upgraded. See "Order of Migration" on page 1428.
3. Examine the component changes for GVP. See Chapter 71 on page 1445

Note: The tables in Chapter 71 describe changes that directly affect the migration of this product only.

For complete information about what's new in the 8.1.x releases of GVP and how these releases function, see the *Genesys Voice Platform 8.1 Deployment Guide.*

For a complete list of documentation relevant to the migration of this product, see "Reference Materials" on page 1428.

4. Review the licensing requirements. Although GVP has no licensing requirements, there may be licensing requirements for associated products in the deployment, such as third-party speech engines or other Genesys components. For more information about Genesys licensing requirements, see the information about licensing migration in the "Licensing Migration" chapter of this guide.
5. Check the interoperability of the components of GVP 8.x during the upgrade procedures. See "Interoperability Among Components" on page 1434.
6. Ensure that you have the required permissions to execute commands for GVP components in Genesys Administrator.

Reference Materials

- *Genesys Voice Platform 8.1 Deployment Guide*
- *Genesys Voice Platform 8.1 User's Guide*
- *Genesys Voice Platform 8.1 Application Migration Guide*
- *Voice Platform Solution 8.1 Integration Guide*
- *Genesys Voice Platform 8.1 Configuration Options Reference*
- *Genesys Voice Platform 8.1 Troubleshooting Guide*

For additional GVP-related reference materials, see the *Genesys Voice Platform 8.1 Deployment Guide.*

Order of Migration

The information in this section is specific to the application processes and components that enable or support all GVP 8.x releases.

Migrate or upgrade the application components of GVP, the other enabling software, and relevant data for this GVP solution in the following order.

Note: For the specific procedures that provide more detail about these overview steps, see:

- "Procedures to Migrate to GVP 8.1.7" on page 1561
- "Procedures to Migrate to GVP 8.1.6" on page 1565
- "Procedures to Migrate to GVP 8.1.5" on page 1570
- "Procedures to Migrate to GVP 8.1.4" on page 1574
- "Procedures to Migrate to GVP 8.1.3 or GVP 8.1.2" on page 1578
- "Procedures to Migrate to GVP 8.1.1" on page 1580
- "Procedures to Migrate to GVP 8.1" on page 1582

1. Migrate Management Framework.

Note: Management Framework is the foundation for all Genesys products, solutions, and options. Before you install GVP, Genesys highly recommends that you upgrade the Management Framework components as shown in Table 237.

This update may not be mandatory. Consult the *Genesys Interoperability Guide*.

Table 237: Upgrading Management Framework

If Migrating to this GVP version:	Upgrade to Management Framework version of:	
	Genesys Administrator	Configuration Server
8.5.0		
8.1.7	8.1.3	8.1.3
8.1.6	8.1.3	8.1.2
8.1.5	8.1.2	8.1.1
8.1.4	8.1.0	8.1.0
8.1.3 or 8.1.2	8.0.3	8.02
8.1.1	8.0.11	8.0.1

Table 237: Upgrading Management Framework (Continued)

If Migrating to this GVP version:	Upgrade to Management Framework version of:	
8.1	8.0.1	8.0.1
Note: If you plan to install the MRCP Proxy and Policy Server along with your 8.1.4 upgrade, you must upgrade to Configuration Server 8.1.0 or later. If not, Configuration Server 8.0.2 is acceptable and compatible with all other GVP 8.1.4 components.		

For information about migrating the layers and components of Management Framework, see the "Framework Migration" part of this guide.

If you plan to upgrade Configuration Server, Genesys recommends that you first back up its configuration to an XML file. For more information, see Step 1 of the preliminary migration procedures on page 1560.

2. Upgrade other prerequisite Genesys components (SIP Server, Composer), if required. See "Compatibility Among Components" on page 1435.

   When upgrading many components, determine if the first component you upgrade is backward compatible with the GVP components that have not been upgraded, yet. See at *Genesys Interoperability Guide* and the *Genesys Supported Operating Environment Reference Guide*.

3. Migrate GVP:

Migrating to GVP 8.1.x

- To release 8.1.x (for full details of each release, see page 1427):
  - Back up the configurations of the existing GVP 8.1.x component `Application` objects.
  - Stop GVP. (Hot migration is not supported.)
  - Uninstall the existing GVP 8.1.x components.

Create and configure new, GVP 8.1.x `Application` objects, and install the GVP `Applications` on their hosts.

- If you are migrating to 8.1.2 or later releases, a shared directory; `C:\var\www\gvp\mcp` (Windows) and `/var/www/gvp/mcp` (Linux), is created when the Media Control Platform is installed.
  - For Windows, a virtual directory named, `mcp` is created automatically on the Internet Information Service (IIS) Web Server that points to the shared directory.
  - For Linux, you must create the virtual directory manually following the "Post-Installation Configuration of GVP Components: procedures in the *Genesys Voice Platform 8.1 Deployment Guide.*

Note: Starting in 8.1.4, the installation of the IIS web server is no longer required, because the ASR grammar that is hosted on the web server prior to 8.1.4 is now sent to the ASR engine as inline-grammar in the MRCP request. However, if the `[mpc]inlinegrammar_by_url` configuration option is set to `true` (default is `false`), the pre-8.1.4 behavior is restored and the user must set up the virtual directory correctly for speech recognition to work properly.

- If you are migrating to 8.1.1, 8.1, or 8.0, and you have installed the new Media Control Platform in a different directory from the old `Application`, update the local path to the `<MCP_Installation_root>/grammar/vggrammarbase`, the web server's virtual directory, in Microsoft Internet Information Server (IIS) (or the Apache Web Server if you are installing on Linux). Restore any other custom configuration for the Media Control Platform at this point.

Note: Linux is supported in GVP 8.1 and later releases.

- Back up the Reporting Server database.
- Upgrade the Reporting Server database.
- Start GVP 8.1.x.
- Verify proper operation of new GVP 8.1.x version by checking its log for errors.

Considerations for Multi-Tenant Migrations

GVP supports Hierarchical Multi-Tenancy (HMT) starting with release 8.1.2, enabling you to migrate your existing 7.6 multi-tenant configuration. The GVP 8.1.2 (and later) HMT model does not strictly replicate the GVP 7.6 model, however, there are many new features to enhance and simplify the way in which multiple tenants are created, configured, and managed. In addition,

GVP 8.1.2 (and later) and Genesys Administrator 8.0.3 (and later) provide tools and wizards to facilitate migration.

You must consider six main aspects of migration to GVP 8.1.2 (and later), which are discussed in this section.

Tenant Hierarchy

Each GVP 8.1.2 (and later) tenant object, other than the default or *root* tenant, uses the parent `TenantDBID` to reference its parent tenant object. The root tenant resides at the top of the hierarchy and serves as the parent tenant. The root

tenant is named `Environment` by default, but any name can be configured. All child tenants are created under the root or `Environment` tenant.

You can use the Bulk Tenant Wizard to migrate your existing hierarchy, which is described in the "Migrating Your Existing Multi-Tenant Environment" on page 1632. For more information about how to create and configure tenants in HMT, see *Genesys Administrator 8.0.3 Help*.

Logical Resource Groups

In GVP 8.1.x, Resource Groups represent groupings of resources that share common properties, such as, service type (for example, `voicexml`), capabilities (for example, support for a specific VoiceXML grammar), and method of load balancing (for example, round-robin). They are an important element of resource management and essential for multi-tenant environment where specific resources and services may not be allocated to all tenants.

Unless you are migrating from GVP 8.1.1, there is no resource group data to migrate. Resource Groups did not exist in GVP 8.1.0 and earlier 8.x versions. However, you must create new Resource Groups as part of your migration to GVP 8.1.7, 8.1.6, 8.1.5, 8.1.4, 8.1.3, or 8.1.2. For information about how to create Resource Groups, see the *Genesys Voice Platform 8.1 Deployment Guide*.

If you are migrating from a 7.x release, see "Procedures to Migrate to GVP 8.1.4" on page 1574, which provides information about how to use the Logical Resource Group Migration Tool (LRGMT).

How the LRGMT Migrates Legacy Resource Groups

The Logical Resource Group Migration Tool (LRGMT) is an application within Genesys Administrator that is invoked from the operating system's Command Line Console (CLC), and provides diagnostic information directly to the console. The tool accepts command-line arguments, which correspond to the fields in the Genesys Administrator login dialog box, and must be specified in the following order:

- `<username>`
- `<password>`
- `<application>`
- `<host>`
- `<port>`

Upon completion of the migration process, the tool exits without user intervention and provides any error messages to standard error log file.

The tool enumerates all of the resource groups that are in the legacy format and are not Gateway resource groups, and creates new groups by using the Configuration Unit (CU) scheme (Management Framework objects).

Legacy resource groups belong to the Environment tenant by default, therefore, the new resource groups are created under the Environment tenant. When a new resource group is created without errors, the associated legacy resource group is deleted.

To compare resource groups, the tool uses two kinds of information:

1. The virtual IP that is configured for the Resource Manager `Application` to which the resource group belongs.
2. The connections to the Resource Manager `Application` for the specific resource group.

Based on this comparison, identical pairs of resource groups are considered to belong to a Resource Manager High Availability (HA) pair. The tool creates only one new resource group for these LRGs and assigns the CU to both Resource Manager instances in the HA pair.

DID Groups, DIDs, and IVR Profiles

Direct Inward Dialing (DID) Groups are used to group DID numbers or DID ranges and can have IVR Profiles associated with them. (DIDs were previously referred to as Dialed Numbers [DN]). A child tenant can have more than one DID Group and the tenant owner of a DID Group can assign more than one DID Group to its child tenant. The rules for adding DID ranges to DID Groups remains the same as it did for DNs in previous versions of GVP, except that DIDs must be unique across all tenants rather than the parent tenant only.

Starting in GVP 8.1.4, you can install Policy Server to validate DID Groups and detect overlaps in DID ranges. It provides this information in response to HTTP queries from Genesys Administrator. For information about how Policy Server performs it's functions, see the *Genesys Voice Platform 8.1 Deployment Guide.*

You can use the Bulk Operations Wizard to migrate your existing hierarchy, which is described in the "Procedure to Migrate Multi-Tenant Configurations" on page 1632. For more information about how to create DID Groups, see the *Genesys Voice Platform 8.1 Deployment Guide* or *Genesys Administrator 8.0.3 Help*.

Policies and Port Assignments

Port levels 1, 2, and 3, previously provisioned at the customer level, can now be provisioned for tenants (at any level of the hierarchy) or for an IVR Profile.

The number of calls allowed for each port and the affect on system performance remains the same in 8.1.2, however, the values are now configured in the `gvp.policy/usage-limits`, `gvp.policy/level2-burst-limit`, and `gvp.policy/level3-burst-limit` options.

You can install Policy Server to validate and resolve GVP-specific business rules (the policies that are enforced by the Resource Manager). For information

about how Policy Server performs it's functions, see the *Genesys Voice Platform 8.1 Deployment Guide.*

You can migrate the maximum ports provisioning data for your 7.6 IVR Profiles to the `gvp.policy/usage-limits` option. Also, if you define the `gvp.policy/level2-burst-limit`, and `gvp.policy/level3-burst-limit` options when creating your IVR Profiles, the functionality is the same as when they are provisioned for a tenant. See the "Procedure to Migrate Multi-Tenant Configurations" on page 1632.

Note: In GVP 8.1.2 and later, the usage-limit, permission, and rule-based policies are checked using top-down methodology. While the way in which the usage-limit and rule-based policies are checked is transparent to the user, it is important to note that if you are migrating IVR Profiles with permission policies (for example, conference-allowed) that are defined in both the profile and tenant, the IVR Profile will not be checked in the new 8.1.2 hierarchy before the tenant (bottom-up). In other words, the profile-defined permissions could be overridden by the tenant-defined permissions.

For more information about how GVP 8.1.2 and later supports policies and port provisioning in HMT, see the *Genesys Voice Platform 8.1 Deployment Guide*.

Speech Resource Management

Starting in GVP 8.1.4, you can install the MRCP Proxy to manages access and routing to your MRCPv1 resources. The MRCP Proxy can route requests to the supported resources, provide round-robin load balancing, and monitors the health status of resources. For information about the MRCP Proxy performs it's functions, see the *Genesys Voice Platform 8.1 Deployment Guide.*

Reporting Server Data Retention Policies

After you have installed the Reporting Server, you can use the Data Retention Policy Wizard to configure four categories of tenants and IVR Profile data retention policies—CDR, Operation Reporting, VAR, and Service Quality.

For information about how to use the Data Retention Policy Wizard, see the *Genesys Voice Platform 8.1 User's Guide*.

Interoperability Among Components

The term *interoperable* means that different versions of Genesys solutions, components, or options can work together compatibly during the migration process.

Interoperability of Genesys products can occur at two levels of migration:

- **Interoperability at the suite level** means combining different releases of solutions and options during the migration process.

  Example: You can migrate to the Management Layer of Framework 8.0.1 while still using 7.x or 8.0 components. For information about suite-level interoperability, see the *Genesys Interoperability Guide*.
- **Interoperability at the solution level** means combining different releases of the components of a particular solution while upgrading them sequentially during the migration process.

  The mixture of components may include the executable files, applications, routing strategies, scripts, and data that make up a particular solution.

  As you upgrade each of the components in sequence, you will need to know whether it is backward-compatible with the other components of GVP.

  Example: If you have four components to upgrade, determine whether the first component you upgrade to release 8.1 will be backward-compatible with the three 8.0 components you have not yet upgraded.

The following section provides important information about GVP interoperability at the suite level and the solution level.

Compatibility Among Components

This section describes compatibility among GVP components and Voice Platform Solution (VPS) components.

Components in 8.1.7

GVP 8.1.7 includes the following component installation packages (IPs):

- VP Resource Manager 8.1.7
- VP Media Control Platform 8.1.7 (includes the Fetching Module and software to represent the optional Media Resource Control Protocol version 1 [MRCPv1] or MRCP version 2 [MRCPv2] speech engines in Genesys Framework)
- VP Call Control Platform 8.1.7 (includes the Fetching Module)
- VP Third-Party Squid 8.1.7 (unchanged from 8.0)
- VP Reporting Server 8.1.7
- VP Supplementary Services Gateway 8.1.7
- VP Computer Telephony Integration Connector (CTIC) 8.1.7
- VP Policy Server 8.1.7
- VP MRCP Proxy 8.1.7
- VP Management Information Bases (MIBs) 8.1.7

- GVP Reporting Plugin for GAX 8.1.7

Voice Platform Solution (VPS) 8.1.7 also includes:

- Management Framework 8.1.3 and Genesys Administrator 8.1.3
- SIP Server 8.1.1
- Composer 8.1.3

PSTN Connector and GVPi

GVPi is not included in GVP 8.1.7, but it is still supported. See "Notes about Deploying the PSTN Connector or GVPi in 8.1.5 and other Environments".

Components in 8.1.6

GVP 8.1.6 includes the following component installation packages (IPs):

- VP Resource Manager 8.1.6
- VP Media Control Platform 8.1.6 (includes the Fetching Module and software to represent the optional Media Resource Control Protocol version 1 [MRCPv1] or MRCP version 2 [MRCPv2] speech engines in Genesys Framework)
- VP Call Control Platform 8.1.6 (includes the Fetching Module)
- VP Third-Party Squid 8.1.6 (unchanged from 8.0)
- VP Reporting Server 8.1.6
- VP Supplementary Services Gateway 8.1.6
- VP Computer Telephony Integration Connector (CTIC) 8.1.6
- VP Policy Server 8.1.6
- VP MRCP Proxy 8.1.6
- VP Management Information Bases (MIBs) 8.1.6

Voice Platform Solution (VPS) 8.1.6 also includes:

- Management Framework 8.1.2 and Genesys Administrator 8.1.3
- SIP Server 8.1.0
- Composer 8.1.1

T-Server-UCMC to Media Connector

In this release the T-Server-UCMC to Media Server Connector integrates with T-Server for Cisco UCM (a Genesys component) and switches to provide media services. For information about how the Connector functions, see the *Genesys Media Server 8.1 Deployment Guide.*

If you are including the T-Server-UCMC to Media Server Connector in your deployment, the minimum required release of T-Server for Cisco UCM is 8.0.

PSTN Connector and GVPi

GVPi is not included in GVP 8.1.6, but it is still supported. See "Notes about Deploying the PSTN Connector or GVPi in 8.1.5 and other Environments".

Components in 8.1.5

GVP 8.1.5 includes the following component installation packages (IPs):

- VP Resource Manager 8.1.5
- VP Media Control Platform 8.1.5 (includes the Fetching Module and software to represent the optional Media Resource Control Protocol version 1 [MRCPv1] or MRCP version 2 [MRCPv2] speech engines in Genesys Framework)
- VP Call Control Platform 8.1.5 (includes the Fetching Module)
- VP Third-Party Squid 8.1.5 (unchanged from 8.0)
- VP Reporting Server 8.1.5
- VP Supplementary Services Gateway 8.1.5
- VP Computer Telephony Integration Connector (CTIC) 8.1.5
- VP Policy Server 8.1.5
- VP MRCP Proxy 8.1.5
- VP Management Information Bases (MIBs) 8.1.5

Voice Platform Solution (VPS) 8.1.5 also includes:

- Management Framework 8.1.1 and Genesys Administrator 8.1.2
- SIP Server 8.1.0
- Composer 8.1.1

T-Server-UCMC to Media Connector

In this release the T-Server-UCMC to Media Server Connector integrates with T-Server for Cisco UCM (a Genesys component) and switches to provide media services. For information about how the Connector functions, see the *Genesys Media Server 8.1 Deployment Guide.*

If you are including the T-Server-UCMC to Media Server Connector in your deployment, the minimum required release of T-Server for Cisco UCM is 8.0.

PSTN Connector and GVPi

The PSTN Connector is not included in GVP 8.1.5, but it is still supported. See "Deploying the PSTN Connector or GVPi in 8.1.5 Environments".

Components in 8.1.4

GVP 8.1.4 includes the following component installation packages (IPs):

- VP Resource Manager 8.1.4
- VP Media Control Platform 8.1.4 (includes the Fetching Module and software to represent the optional Media Resource Control Protocol version 1 [MRCPv1] or MRCP version 2 [MRCPv2] speech engines in Genesys Framework)
- VP Call Control Platform 8.1.4 (includes the Fetching Module)
- VP Third-Party Squid 8.1.4 (unchanged from 8.0)
- VP Reporting Server 8.1.4

- VP Supplementary Services Gateway 8.1.4
- VP Computer Telephony Integration Connector (CTIC) 8.1.4
- VP Public Switched Telephone Network Connector (PSTNC) 8.1.4
- VP Policy Server 8.1.4 (new component)
- VP MRCP Proxy 8.1.4 (new component)
- VP Management Information Bases (MIBs) 8.1.4

Voice Platform Solution (VPS) 8.1.3 also includes:

- Management Framework 8.0 and Genesys Administrator 8.1.0
- SIP Server 8.1.0
- Composer 8.1.0

CTI Connector and Cisco (ICM)

In this release, the CTI Connector includes the Cisco Queue Adapter, to enable integration with Cisco's Intelligent Contact Management (ICM) and provide enhanced call routing features and functionality. For information about how the CTI Connector functions with ICM, see the *Genesys Voice Platform 8.1 Deployment Guide.*

If you are including the CTI Connector in your deployment for full computer-telephony integration functionality through IVR Server, the minimum required release of Genesys IVR Server is 8.0.

Components in 8.1.3

GVP 8.1.3 includes the following component installation packages (IPs):

- VP Resource Manager 8.1.3
- VP Media Control Platform 8.1.3 (includes the Fetching Module and software to represent the optional Media Resource Control Protocol version 1 [MRCPv1] or MRCP version 2 [MRCPv2] speech engines in Genesys Framework)
- VP Call Control Platform 8.1.3 (includes the Fetching Module)
- VP Third-Party Squid 8.1.3 (unchanged from 8.0)
- VP Reporting Server 8.1.3
- VP Supplementary Services Gateway 8.1.3
- VP Computer Telephony Integration Connector (CTIC) 8.1.3
- VP Public Switched Telephone Network Connector (PSTNC) 8.1.3 (new component)
- VP Management Information Bases (MIBs) 8.1.3

Voice Platform Solution (VPS) 8.1.2 also includes:

- Management Framework 8.0 and Genesys Administrator 8.0.3
- SIP Server 8.0.3
- Composer 8.1.0

If you are including the CTIC in your deployment for full computer-telephony integration (CTI) functionality through IVR Server, the minimum required release of Genesys IVR Server is release 8.0.

Components in 8.1.2

GVP 8.1.2 includes the following component installation packages (IPs):

- VP Resource Manager 8.1.2
- VP Media Control Platform 8.1.2 (includes the Fetching Module and software to represent the optional Media Resource Control Protocol version 1 [MRCPv1] or MRCP version 2 [MRCPv2] speech engines in Genesys Framework)
- VP Call Control Platform 8.1.2 (includes the Fetching Module)
- VP Third-Party Squid 8.1.2 (unchanged from 8.0)
- VP Reporting Server 8.1.2
- VP Supplementary Services Gateway 8.1.2
- VP Computer Telephony Integration Connector (CTIC) 8.1.2
- VP Public Switched Telephone Network Connector (PSTNC) 8.1.2 (new component)
- VP Management Information Bases (MIBs) 8.1.2

Voice Platform Solution (VPS) 8.1.2 also includes:

- Management Framework 8.0 and Genesys Administrator 8.0.3
- SIP Server 8.0.3
- Composer 8.1.0

In 8.1.2, the Fetching Module is integrated with the Media and Call Control Platforms and is no longer a separate component. In addition, the Squid caching proxy is now optional.

Note: The integrated Fetching Modules in-memory cache is HTTP/1.1 compliant and can be used with external web servers. If you plan to use an external web server, you must enable content expiry on the static content. Configuring this setting greatly reduces the number of HTTP requests and prevents server overload.

If you are including the CTIC in your deployment for full computer-telephony integration (CTI) functionality through IVR Server, the minimum required release of Genesys IVR Server is release 7.5.

The PSTN Connector is required if your current GVP deployment includes Time-division Multiplexing (TDM) functionality to communicates with ISDN or other telephony networks, or if, after migration to GVP 8.1.2, you want to include this functionality in your environment.

Mixed Environment Deployments

When the VPS components are deployed in mixed environments:

- Common components like the Resource Manager, Reporting Server, Genesys Administrator, and Management Framework must be updated to the latest version.
- Old and new versions of the Media Control Platform, Call Control Platform, and Fetching Module can interoperate with updated versions of the common components.
- Old versions of the CTI Connector can interoperate with common components, however, Genesys Administrator 8.0.2 only supports the new HMT-based CTI Connector configurations. For Genesys Administrator 8.0.2 or later versions, the CTI Connector is no longer added as a connection to the Resource Manager `Application`. For more information about HMT-based configuration for the CTI Connector, see the *Genesys Voice Platform Deployment Guide*.

Components in 8.1.1

GVP 8.1.1 includes the following component installation packages (IP):

- VP Resource Manager 8.1.1
- VP Media Control Platform 8.1.1 (includes software to represent the optional Media Resource Control Protocol version 1 [MRCPv1] or MRCP version 2 [MRCPv2] speech engines in Genesys Framework)
- VP Call Control Platform 8.1.1
- VP Third-Party Squid 8.1.1 (unchanged from 8.0)
- VP Fetching Module 8.1.1
- VP Reporting Server 8.1.1
- VP Supplementary Services Gateway 8.1.1 (new component)
- VP Computer Telephony Integration Connector (CTIC) 8.1.1
- VP Management Information Bases (MIBs) 8.1.1

Voice Platform Solution (VPS) 8.1.1 also includes:

- Management Framework 8.0 and Genesys Administrator 8.0.11
- SIP Server 8.0.1
- Composer 8.1.0

If you are including the CTIC in your deployment for full computer-telephony integration (CTI) functionality through IVR Server, the minimum required release of Genesys IVR Server is release 7.5.

Components in 8.1

GVP 8.1 includes the following component installation packages (IP):

- VP Resource Manager 8.1
- VP Media Control Platform 8.1 (includes software to represent the optional Media Resource Control Protocol version 1 [MRCPv1] or MRCP version 2 [MRCPv2] speech engines in Genesys Framework)
- VP Call Control Platform 8.1
- VP Third-Party Squid 8.1 (unchanged from 8.0)
- VP Fetching Module 8.1
- VP Reporting Server 8.1
- VP Computer Telephony Integration Connector (CTIC) 8.1 (new component)
- VP Management Information Bases (MIBs) 8.1

Voice Platform Solution (VPS) 8.1 also includes:

- Management Framework 8.0 and Genesys Administrator 8.0.1
- SIP Server 8.0.1
- Composer 8.1.0

If you are including the CTIC in your deployment for full computer-telephony integration (CTI) functionality through IVR Server, the minimum required release of Genesys IVR Server is release 7.5.

Reporting Server Database

Each GVP release has its own Reporting Server database schema version, and each release can work only with its own database schema version.

Note: For an overview about migration issues, see the "Overview of Migration" chapter of this guide.

Deploying the PSTN Connector with CTI Framework

If you plan to upgrade or deploy the PSTN Connector with GVP CTI framework during your migration some conditions apply, depending on the version to which you are migrating.

During migration, if you plan to include or upgrade the PSTN Connector to:

- **8.1.2 or 8.1.3**—Genesys recommends that you upgrade to 8.1.3 MR1 or higher due to IVR port numbering issues in earlier versions, when multiple spans are used.
- **8.1.3 MR1**—The 8.1.3 MR1 PSTN Connector generates three-digit port numbers, whereas legacy GVP 7.x (and GVP 8.1.x prior to 8.1.3 MR1) generate two-digit port number for port number up to 99. Therefore If you migrate to 8.1.3 MR1, you must provision your IVR port numbers to accommodate this change.

- **8.1.4**—The 8.1.4 PSTN Connector behavior is the same as legacy GVP 7.x, in that it generates two-digit port number up to 99. However, if you are migrating from PSTN Connector 8.1.3 MR1 to 8.1.4, you configure the value of the `Use2DigitPortNumber` option to `false`. This configuration is required to enable the use of the three-digit port format as in GVP 8.1.3 MR1.

> **Note:** The PSTN Connector is not included in GVP 8.1.5 or higher, but it is still supported. See "Deploying the PSTN Connector or GVPi in 8.1.5 Environments".

Deploying the PSTN Connector or GVPi in 8.1.5 Environments

The PSTN Connector and Legacy GVP VoiceXML interpreter (GVPi) are not included in the 8.1.5 release, but they are still supported and can be deployed together or separately in 8.1.5 environments. In either case, at least one instance of the 8.1.4 Media Control Platform is required to service the PSTN Connector and/or GVPi requests for media services.

If necessary, you can use the Resource Manager capability-based routing feature or multi-tenancy feature to differentiate between requests for the 8.1.4 and 8.1.5 Media Control Platforms.

For example, your 8.1.5 environment might be deployed in the following way:

- A pool of 8.1.5 Media Control Platform instances is deployed to enable new media capabilities like video.
- A pool of 8.1.4 Media Control Platform instances is deployed to support GVPi and/or the PSTN Connector (together in the same environment).

To do this, you must provision two separate MCP Logical Resource Groups (LRG).

Capability-Based Routing

To use capability-based routing:

1. The 8.1.5 Resource Group must have video and other media capabilities configured.
2. The 8.1.4 MCP Resource Group must have the GVPi and PSTN Connector capabilities configured.
3. The Resource Manager's capability-based routing feature must be configured to ensure that the PSTN Connector (using GVPi) calls are handled by the 8.1.4 MCP Resource Group only.
4. To ensure the correct LRG processes the calls, create an IVR profile that requests the PSTN Connector/GVPi capability-based routing features (they must match the ones that are defined in the LRG).

Multi-Tenancy Feature

To use the multi-tenancy feature:

1. Configure different tenants for GVP 8.1.4 MCP groups and GVP 8.1.5 MCP groups.

2. Set the `exclusive` parameter value to `yes` for both groups.

To configure the Resource Groups and IVR Profiles to support this configuration, see the sections "Using Resource Groups" and "Creating IVR Profiles and DID Groups, Chapter 7 in the *Genesys Voice Platform 8.1 Deployment Guide* and "IVR Profile Configuration for GVPi", Chapter 6 in the *Genesys Voice Platform 8.1 User's Guide.*

Notes about Deploying the PSTN Connector or GVPi in 8.1.5 and other Environments

MCP The Media Control Platform in release 8.1.6 interoperates with the PSTN Connector (PSTNC), as it did in releases before 8.1.4 and lower. MCP 8.1.5 has special requirements.

GVPi GVPi is not part of GVP 8.1.5 and up. To use GVPi in a GVP 8.1.5+ deployment, you need to install an MCP 8.1.4.

PSTNC The PSTNC 8.1.4 is the final release of this component, except for hot fixes. To use the PSTNC in GVP 8.1.5, you must install:

- PSTNC 8.1.4
- MCP 8.1.4

To use the PSTNC in GVP 8.1.6, you must install:

- PSTNC 8.1.4

Chapter

71 Changes in GVP 8.x

This chapter provides information that you need to upgrade the components and configuration options of Genesys Voice Platform (GVP) to all 8.x releases. This chapter discusses only those changes (additions, deletions, and modifications) in the product that may need to be addressed during the migration process.

The product documentation for each release contains a comprehensive list of changes from release to release. In particular, review the "New in This Release" section of the *Genesys Voice Platform 8.1 Deployment Guide.*

This chapter contains the following sections:

Changes in GVP 8.x

Read about migration to all versions of GVP 8.x in "Migrating to GVP 8.5" at the Genesys Documentation website.

Changes in GVP 8.1.7

The changes in GVP 8.1.7 are described in the following sections:

- Component Changes, page 1446
- Configuration Option Changes, page 1448
- Reporting Server Database Changes, page 1450

For more information about all the new features and functions in release 8.1.7, see the *Genesys Voice Platform 8.1 Deployment Guide*. For more detailed information about configuring GVP to implement the features and functions, see the *Genesys Voice Platform 8.1 User's Guide* and the *Voice Platform Solution 8.1 Integration Guide*.

Component Changes

The following list includes changes to GVP from release 8.1.6 to 8.1.7.

- The Genesys 8.1.7 Readme offers a list of new features and support.
- Two white papers, available through your GVP project manager, offer insight on the subjects:
  - Resource Manager High Availability (HA) functionality
  - New F5 HA functionality.

  Both white papers are available from your representative in Genesys Product Management.
- The *Genesys Voice Platform 8.1.7 Deployment Guide* includes new or revised sections or tables:
  - Added the section "How the MRCP Proxy Works".
  - Updated Table 12, "Versions Compatible With GVP," for GVP 8.1.7.
  - Modified the section "Installing the GAX-GVP Reporting Plugin".
  - Added a list of Service Quality Reports to Table 17, "GAX-GVP Reporting Plugin Report Types,".
  - Added the section "GVP-GAX Reporting Plugin Privileges".
  - Revised the note White Papers about High Availability.
  - Added the section Integrating GVP with SIP Server for an Active-Active Resource Manager Configuration.
  - Added the section "Notes on Resource Manager Configuration for Active-Active (Load Balancing)".

  - Added the section “Registration for ECC Variables—Static and Dynamic”.
- The *Genesys Voice Platform 8.1.7 User Guide* includes new or revised sections or tables:
  - Added information on making TCP the preferred protocol to Task Summary: Configuring SIP Communications and Routing.
  - Added information on MRCP V2 Client options to Table 4, “Default SIP Transports”.
  - Added information on the components MRCP and RM, and the option `logconfig.TRAPSINK`, to Table 6, “Default Log and Metrics Filters”.
- Chapter 4, “Configuring the Resource Manager”.
  - Modified the list of valid and example values for the `IP Type of Service for RTP/RTCP` variable in Table 13, “Selected Resource Manager Configuration Options”.
  - Modified the list of valid and example values for the `IP Type of Service for RTP/RTCP` variable in Table 23, “Selected Media Control Platform Configuration Options”.
  - Added information about specifying use of the `sips:` schema and controlling SIP Secure Mode to Task Summary: Configuring the Call Control Platform.
  - Modified the list of valid and example values for the `IP Type of Service for RTP/RTCP` variable in Table 26, “Selected Call Control Platform Configuration Options”.
  - Added references to the Service Quality reports Call Failures, Call Summary, and Latency Details in the section “Generating a Report with GAX” and “GAX Report Generation Table”.
  - Rearranged sections to place parallel GA and GAX procedures together, modified titles, and added notes to sections that apply to both.
  - Added a note about ASR/TTS Usage Peaks report for MRCPv1 and MRCPv2 in Chapter 19, “ASR/TTS Usage Peaks”.
  - Revised (additions, corrections, and restorations) Table 76, “CCP Media Controller Events” and Table 77, “CCXMLI Log_4 INFO Events”.
  - Added SIP Response codes to Table 97, “Error Response Handling—Outbound Calls”.
  - In the section “Dynamic Media Control Platform Parameters”, removed the configuration options `inbandxferprefix` and `inbandxfertimeout`.
  - Added an example VoiceXML page that will perform configuration, using `signalvar`.
- The *Genesys 8.1 Media Server Deployment Guide* includes new or revised sections or tables:
  - Added a usage example for the option `[mpc] sdp.connection` to the section “Media and Signaling Channels”.

- Added the section “File-based Call Recording”.

Configuration Option Changes

This section describes configuration option changes for specific GVP 8.1.7 components. It contains the following changed tables:

- MRCPv2_ASR—Table 238 on page 1448
- MRCPv2_TTS—Table 239 on page 1448
- Media Control Platform—Table 240 on page 1449
- Call Control Platform—Table 241 on page 1450
- Reporting Server—Table 242 on page 1450

It does not contain the following tables, which are unchanged for release 8.1.7: CTI Connector, Supplementary Services Gateway, MRCPP, MRCPv1_ASR, MRCPv1_TTS.

Table 238: Configuration Option Changes—8.1.7 MRCPv2_ASR

Configuration section name	Type of change	Configuration options and details
`provision`	New option added	`vrm.client.SendSessionXML`—Reject Send NSS6 SessionXML. When this is set, the SRM client will send the specified session.xml contents to the MRCP server. Note, this should not be set to true to any MRCP server other than the Nuance Speech Server 6.1 or later. Valid values: `true`, `false` (default) Takes effect at start/restart.

Table 239: Configuration Option Changes—8.1.7 MRCPv2_TTS

Configuration section name	Type of change	Configuration options and details
`provision`	New option added	`vrm.client.SendSessionXML`—Send NSS6 SessionXML. When this is set, the SRM client will send the specified session.xml contents to the MRCP server. Note that this should not be set to true for any MRCP server other than the Nuance Speech Server 6.1 or later. Valid values: `true`, `false` (default) Takes effect at start/restart.

Table 240: Configuration Option Changes—8.1.7 Media Control Platform

Configuration section name	Type of change	Configuration options and details
mpc	option removed	removed mediamgr.autorecordformatselect
mpc	New option added	includeavpfinsdp Including AVPF or SAVPF in SDP Sets if the MCP will include SAVPF / AVPF instead of SAVP / AVP in SDP. - If set to "none" (default), SAVP / AVP will be used. - If set to "audio", only audio will have SAVPF / AVPF. - If set to "video", only video will have SAVPF / AVPF. - If set to "audioandvideo", both audio and video will have SAVPF / AVPF. Valid values: none, audio, video, audioandvideo Takes effect immediately and per session
mpc	New option added	reframereqonconnjoin Request Intra-frames on Join / Bridge Enables requesting of intra-frames when there is a join or a bridge between connections / calls. Valid values: true (default), false Takes effect immediately and per session
mpc	New option added	vp8.maxkeyframeinterval VP8 Keyframe Maximum Interval This parameter, expressed as a number of frames, forces the encoder to code a keyframe if the last keyframe was vp8.maxkeyframeinterval frames ago. A value of 0 or 1 implies all frames will be keyframes. Valid values: Zero or a positive number. Default value: 15 Takes effect immediately and per session

Table 240: Configuration Option Changes—8.1.7 Media Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
vrmrecorder	New option added	sip.transport.staticroutelist VRMRecorder SIP Static Route List Specifies a list of static routes. Each route group is separated by |. Each static route group is a list of IP addresses separated by commas. Within the route group, each IP address could substitute as an alternate route destination if sending a SIP request to one of the IP addresses fails. For example, 10.0.0.1,10.0.0.2|10.0.10.1,10.0.10.2 specifies two static route groups, and each group specifies two routes that are alternatives to each other. The default value is an empty list. Default value: empty (blank) Takes effect at start/restart.

Table 241: Configuration Option Changes—8.1.7 Call Control Platform

Configuration section name	Type of change	Configuration options and details
		Spelling corrections made to the sipsecure description.

Table 242: Configuration Option Changes—8.1.7 Reporting Server

Configuration section name	Type of change	Configuration options and details
RS		Changed the default value of quartz.rs.or.counting WAS ~~<code>0 0 0/1 * * ?</code>~~ CHANGED TO: <code>0 40 * * * ?</code>

Reporting Server Database Changes

The Reporting Server database schema version is always the same as the release number of the Reporting Server installation package (IP).

- The MCP CDR tables store usage data for Media Control Platform sessions, providing details about how often a resource is used within a session.
- The RM DN and CDR tables store data for Resource Manager sessions, keeping track of DN values with 0 prefixes.

The following tables were added to the Reporting Server database for GVP 8.1.7:

- `ASR_DURATIONS` tables—used to store the total duration of MCP calls that use an ASR resource.
- `TTS_DURATIONS` tables—used to store the total duration of MCP calls that use a TTS resource.
- `MCP_VXML_DURATIONS` tables—used to store the total duration of MCP calls that use VoiceXML.
- `MEDIA_SERVICE_DURATIONS`—used to store the total duration of Media Service calls (broken down by media service type).

Changes in GVP 8.1.6

The changes in GVP 8.1.6 are described in the following sections:

- Component Changes, page 1451
- Configuration Option Changes, page 1454
- Reporting Server Database Changes, page 1463

For more information about all the new features and functions in release 8.1.6, see the *Genesys Voice Platform 8.1 Deployment Guide*. For more detailed information about configuring GVP to implement the features and functions, see the *Genesys Voice Platform 8.1 User's Guide* and the *Voice Platform Solution 8.1 Integration Guide*.

Component Changes

The following list includes changes to GVP from release 8.1.5 to 8.1.6.

- The Genesys 8.1.6 Readme offers a list of new features and support.
- A white paper on the Genesys Technical Support web site offers new insight on Resource Manager High Availability (HA) functionality.
- A white paper on the Genesys Technical Support web site offers description of new F5 HA functionality.
- The *Genesys 8.1 Media Server Deployment Guide* includes new or revised sections or tables that describe:
  - Support for SIP Server Geo-Location functionality.
  - DNs supported by GVP and Media.
  - Optional Media Server Invocation parameters, including the new parameter mode stream.
  - Support for the H.264 MPEG Part 10 video file container.
  - Restoration of the GSM 6.10 codec.
  - New Play Cache functionality.
  - Event pool throttling.

- Support for the VP8 Transcoder.
- Support for UTF-8 Text Overlay.
- Media Server and SIP headers support for recording clients.
- Windows and Linux procedures for installing Reporting Server.
- MSML support for the attribute `gvp:streaming` to the element `<play>`.
- Resource Manager HA Solutions
- HA and Scalability, including the solutions:
  - External Load Balancer
  - Virtual IP Takeover Solution—Windows
  - Virtual IP Takeover Solution—Linux
  - Microsoft NLB—Windows
  - HA Using Virtual IP
  - HA Using an External Load Balancer.
- Speech Resource Limit Policy
- Service Level Policies, including the procedure Setting Service Levels.
- CPA Categories and Sub-types supported by Dialogic.
- MSML-Based Media Services
- PSTN Connector- and NGI-supported transfers.
- Support for Multiple Speech Servers.
- How the Supplementary Services Gateway works.
- SQA and NGI compatibility
- Adding a Speech Server as primary or backup.
- Mandatory tenant in the section “Assigning Default Tenants and Creating Default Profiles”.
- Generating a report using GAX.
- `/etc/hosts` and the local IP address
- Installing and Configuring the PSTN Connector (Linux)
- Resource Manager HA IP address takeover for Windows.
- Multiple Trunk Group ID support for CTI Connector (ICM)
- Passing ECC Variables during call setup.

In Addition:

- The section “CTI Connector (ICM) in Type 8 Network VRU Deployment”.
- The section “CTIC (Genesys) and Treatment”.
- No new GVP reporting functionality in Genesys Administrator, but most of GVP 8.1.5 reporting functionality is now also present in GAX.
- Installation and configuration of the GAX-GVP Reporting Plugin.

- The *Genesys 8.1 User's Guide* includes new or revised sections or tables that describe:
  - Service Quality reports and NGi VXML apps.
  - The new `FIPS Mode Enabled` option.

- The new service types `cpd` and `treatment`.
- New usage limits configuration options.
- The new section "Operational Parameter Management and Self-Service Applications".
- A new section about `callmgr`.
- The new SDP parameter `maxptime`.
- CTIC (Genesys) and Treatments.
- Multiple Trunk Group ID support for CTI Connector (ICM).
- CTI Connector (ICM) and ECC Variables.
- CTIC (ICM) Parameter Notes.
- Disabling CDR Storage for Resource Manager and Media Control Platform.
- The section "Generating a Report" now contains "Generating a Report Using Genesys Administrator" and "Generating a Report Using GAX."
- GAX Report Generation Table.
- The new field CODEC in Per-Call IVR Actions Report Fields.
- New reports, accessible through GAX, include:
  - Media Service Call Arrivals and Call Peaks.
  - MCP VXML Call Arrivals and Call Peaks.
- RTP transport for MP3 audio format.
- Continuous Tone Detection.
- VP8 support.
- SSG Database Queue Clearing During a Restart.
- A new appendix describes SIP Customizable Headers and Parameters.

- The *Genesys 8.1 Media Server Deployment Guide* includes new or revised sections or tables that describe:
  - Support for SIP Server Geo-Location functionality.
  - DNs supported by GVP and Media.
  - Optional Media Server Invocation parameters, including the new parameter mode stream.
  - Support for the H.264 MPEG Part 10 video file container.
  - Restoration of the GSM 6.10 codec.
  - New Play Cache functionality.
  - Event pool throttling.
  - Support for the VP8 Transcoder.
  - Support for UTF-8 Text Overlay.
  - Media Server and SIP headers support for recording clients.
  - Windows and Linux procedures for installing Reporting Server.
  - MSML support for the attribute `gvp:streaming` to the element `<play>`.
- The *Genesys 8.1 Troubleshooting Guide* includes new sections that describe:
  - Configuring Windows Server 2008 to generate core dump files.

  - Improving conference performance, which describes the option `[conference] gain_control_enabled`.
  - Licenses.
  - Calls not being accepted.
  - CPU usage higher than expected when using video.
  - Cluster Mode Connection failure.
  - 480 SIP Response Code (Event Pool Throttling).
- The *Genesys 8.1 CCXML Reference Manual* includes the revised section CCXML Example.
- The *Genesys 8.1 Voice Platform Solution Integration Guide* includes new or revised sections that describe:
  - REFER limitations.
  - HA in scaled deployments, including "Solution Level Components and Interfaces" and "Configuration, Reporting and Development Tools."
  - Paraxip media gateway testing.

Configuration Option Changes

This section describes configuration option changes for specific GVP 8.1.6 components. It contains the following tables:

- Resource Manager—Table 243 on page 1454
- Media Control Platform—Table 244 on page 1455
- Call Control Platform—Table 245 on page 1460
- Reporting Server—Table 246 on page 1462
- CTI Connector—Table 247 on page 1462
- Supplementary Services Gateway—Table 248 on page 1463

Table 243: Configuration Option Changes—8.1.6 Resource Manager

Configuration section name	Type of change	Configuration options and details
`rm`	New option added	`reject-recording-request-on-geo-location-nomatch`—Reject request for non-matching geo-location while selecting LRGs for recording client (MCP) and recording server resources. When this parameter set to `true`, RM rejects recording request for non-matching geo-location while selecting LRGs for recording client (MCP) and recording server resources.

Table 243: Configuration Option Changes—8.1.6 Resource Manager (Continued)

Configuration section name	Type of change	Configuration options and details
rm	New option added	pass-capability-params-to-ctic—Pass Capability Parameters in the request to CTI Connector. When this parameter is set to true and the target is CTI Connector, RM passes the capability parameters (specified by the gvp.rm.resource-req prefix) in the request to CTI connector. **Note:** For any other type of resource, those parameters are not passed.
rm	New option added	treat-campaign-as-conference—Treat campaign as conference in Resource Manager. When this parameter set to true, Resource Manager routes MSML request with campaign id (like OCS campaign) as conference request.

Table 244: Configuration Option Changes—8.1.6 Media Control Platform

Configuration section name	Type of change	Configuration options and details
sip	New option added	mpc.copyheaders—Copy the specified headers from inbound call INVITE messages and pass them to the MPC. These headers are currently used by the third-party call recording feature only, and are copied to the out-going INVITE messages to a recorder. If none is the only value present, no headers will be copied. An empty string results in the default value being used. **Note:** The special value * is not supported for this parameter.
conference	New option added	gain_control_enabled—When gain control is enabled, various configurations used to set gain levels will be respected fully. When gain control is disabled, gains of 0 result in muted streams, while gains greater than 0 result in streams that remain at their current level.
conference	New option added	record_chan1source—Specifies the source to use for Call Recording channel 2. Setting this option to otherdnsays selects the audio input of the other DN (or the second conference participant). Setting the option to recorddnhears selects the conference audio output of the record DN (or the first conference participant). The primary purpose is to control whether the repeating conference tone is included in the recorded audio of the other DN. If set to otherdnsays the tone will not be recorded; setting the option to recorddnhears will cause the tone to be recorded. The default value is otherdnsays.

Table 244: Configuration Option Changes—8.1.6 Media Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
conference	New option added	record_chan2source—Specifies the source to use for Call Recording channel 1. Setting this option to recorddnsays selects the audio input of the record DN (or the first conference participant). Setting this option to otherdnhears selects the conference audio output of the other DN (or second conference participant). The primary purpose is to control whether the repeating conference tone is included in the recorded audio of the record DN. If set to recorddnsays, the tone is not recorded; a setting of otherdnhears means the tone is recorded. The default value is recorddnsays.
conference	New option added	record_recorddnhearstone—Specifies whether the record DN (or the first conference participant), hears the repeating tone that indicates the call is being recorded. The default value is Yes.
conference	New option added	record_otherdnhearstone—Specifies whether the other DN (or the second conference participant), hears the repeating tone that indicates the call is being recorded. The default value is Yes.
conference	New option added	record_tonestartdelay—Specifies the delay for starting the repeating tone.
mpc	New option added	ctrleventpoolthreshold—Control Event Pool Threshold Once the mpc.ctrleventpoolthreshold value is reached for an individual event pool, the number of used events in that pool must drop below the low threshold value before calls can be accepted. Only enabled if mpc.ctrleventpoolthreshold is non-zero. The value is in percentage (%).
mpc	New option added	ctrleventpoollowthreshold—Control Event Pool Low Threshold Once the mpc.ctrleventpoolthreshold value is reached for an individual event pool, the number of used events in that pool must drop below the low threshold value before calls can be accepted. Only enabled if mpc.ctrleventpoolthreshold is non-zero. The value is in percentage (%).

Table 244: Configuration Option Changes—8.1.6 Media Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
mpc	New option added	mediamgr.sharedhttpservers—Live HTTP Streaming Server Addresses Specifies the live HTTP server addresses (without port) delimited by space. The address can be a hostname, IPv4, or IPv6 address. For example: genesys.com [fe80:0:0:0:200:f8ff:fe21:67cf] 192.168.0.101 dummyhost 192.168.0.102 3ffe:1900:4545:3:200:f8ff:fe21:67cf If HTTP URL play request has streaming turned on and the URL address is one of the addresses specified by this configuration, the HTTP URL will be played in live HTTP streaming mode. In live HTTP streaming mode, multiple sessions specifying the same URL will play from the same HTTP stream, and new sessions will start playing from the currently arriving media.
mpc	New option added	playcache.enable—Enables the use of the play cache for media playing. When enabled, media played from http://, file:///, rtsp://, and qtmf:// URL types will utilize the play cache. When transcoding is required to play the audio or video media from a source URL to an endpoint with particular audio and/or video codecs settings, the play cache will save the transcoded media to audio and/or video track files, and the media will be played from these track files the next time the URL is played to an endpoint with the same (or compatible) codecs settings. The play cache is enabled by default.
mpc	New option added	playcache.directory—Sets the root directory of the play cache.
mpc	New option added	playcache.expiretime—Sets expire time for media URL entries in the play cache. If the amount of time since an entry for a media URL has been played exceeds this time, the entry will be deleted from the play cache. The format is hours:minutes or hours. Setting the value to 0 (zero) disables deleting based on expire time. The default value is 24:00.

Table 244: Configuration Option Changes—8.1.6 Media Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
mpc	New option added	playcache.checkversiontime—This parameter sets the time period for checking that the source media of a cache entry has changed. This parameter does not apply to http://, https://, and file:// URL types, see the note below. When an entry in the cache is played, the source media is checked for change if it has not been checked within this time period. If the source media has changed, the cache files are recreated using the changed media. Setting the value to 0 (zero) causes a check to be performed for every play. The value is set in seconds. The default value is 300. **Note:** For http://, https://, and file:// URL types, the checking of the source media for changes is handled by the fetching module so this parameter does not apply. For these URL types, if the media content provided by the fetching module changes it is used on the next play. An exception to this is that for file:// URL types, this parameter does not apply if the prompt is played using the MSML tag with precheck disabled.
mpc	New option added	playcache.maxsize—Sets the maximum disk space for the play cache. If the amount of disk space used by the play cache exceeds this value, cache entries are deleted, starting with the least recently played. The value is set in MBytes. Setting the value to 0 (zero) disables deleting based on disk spaced used. The default value is 500.
mpc	New option added	<codec>.maxptime—If the MCP is offering the SDP, or answering the SDP where the offer does not have the maxptime, the maxptime attribute will be set according to this configuration. If this configuration does not exist, or is disabled, the maxptime attribute will not be sent unless the SDP offer had the maxptime attribute. In the case where other codecs in the SDP also specify maxptime, the configuration of the codec listed before this codec will take precedence.
mpc	New option added	tiasfraction—When the TIAS bandwidth parameter is specified on incoming SDP, this option specifies the percentage of the TIAS bitrate that the MPC will try to achieve on the outbound media stream. If this option is set to 100 (the default), the MPC tries to limit the media bitrate to TIAS. In some cases, it might go slightly over the TIAS limit (by perhaps one or two percent), so for safety it might be better to specify a value slightly less than 100. A value greater than 100 is not recommended, and is not permitted for this option.

Table 244: Configuration Option Changes—8.1.6 Media Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
mpc	Existing option modified	codec and transcoder—Restored gsm and added msgsm.
mpc	New options added	codec and transcoder—Added vp8; added configurations for vp8.
mpc	New option added	vp8.defaultframeratenum—VP8 Default Framerate Numerator. This parameter specifies the output framerate numerator for transcoding to the VP8 format. The framerate numerator and denominator values are combined to determine the framerate (for example, 30000/1001 gives 29.97 frames/sec). MCP will not start if an invalid value is specified.
mpc	New option added	vp8.defaultframerateden—VP8 Default Framerate Denominator. This parameter specifies the output framerate denominator for transcoding to the VP8 format. The framerate numerator and denominator values are combined to determine the framerate (for example, 30000/1001 gives 29.97 frames/sec). MCP will not start if an invalid value is specified.
mpc	New option added	vp8.defaultbitrate—VP8 Default Bitrate. This parameter specifies the output bitrate in bits/sec for transcoding to the VP8 format. If set to 0, the default bitrate of the VP8 encoder will be used. MCP will not start if an invalid value is specified.
vmpcp8	New option added	vp8.defaultresolution—Specifies the output resolution for transcoding to the VP8 format. The value is specified by a keyword, or width and height, as follows: • SQCIF - Sub-QCIF resolution (128x96) • QCIF - QCIF resolution (176x144) • QVGA - QVGA resolution (320x240) • CIF - CIF resolution (352x288) • VGA - VGA resolution (640x480) • 4CIF - 4CIF resolution (704x576) • SVGA - SVGA resolution (800x600) • 720P - 720P HD resolution (1280x720) • WidthxHeight - specifies a custom width and height When WidthxHeight syntax is used, the resolution must be less than or equal to 720P HD resolution. MCP will not start if an invalid resolution is specified.

Table 245: Configuration Option Changes—8.1.6 Call Control Platform

Configuration section name	Type of change	Configuration options and details
ccxmli	New option added	basichttp.recv.host.ipv6— BasicHTTP Receive - Host for IPv6 network. The IPv6 address or hostname on which the Basic HTTP Event I/O Processor will be listening for HTTP requests on the IPv6 network interface. If the value is an empty string, the system listens on all available IPv6 network interface. If a hostname is specified, the first IPv6 address in the resolved list is used.
ccxmli	New option added	basichttp.recv.accessuri—Preferred IP version to be used in basichttp access uri. Preferred IP version to be used in basichttp access uri "session.ioprocessors["basichttp"]". Valid values are ipv4 and ipv6.
ccxmli	New option added	createsession.recv.host.ipv6—CreateSession Receive Host for IPv6 network. The IPv6 address or hostname on which the Session Creation Event I/O Processor will be listening for HTTP requests on the IPv6 network interface. If the value is an empty string, the system listens on all available IPv6 network interfaces. If a hostname is specified, the first IPv6 address in the resolved list is used.
ccxmli	New option added	createsession.recv.accessuri—Preferred IP version to be used in createsession access uri. Preferred IP version to be used in createsession access uri "session.ioprocessors["createsession"]". Valid values are ipv4 and ipv6.
mediacontroller	New option added	sipsproxy—SIP Secure Proxy. The address of SIP Secure Proxy for outbound SIP requests. Must be specified in a format similar to 10.10.30.205:5071
mediacontroller	New option added	bridge_sips_server—Address of SIP secure bridge server. The address of SIP secure Bridge Server for use when the two endpoints cannot be joined because of media bridging limitations. Bridge Server must be able to: • send media to multiple end-points • send and receive from distinct end-points • have transcoding capability.

Table 245: Configuration Option Changes—8.1.6 Call Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
mediacontroller	New option added	sipsecure—Using SIP Secure protocol for out going calls. If this flag is set to true, all outbound SIP requests are in SIP secure protocol. **Note:** The hitns attribute of CCXML elements that initiates an out bound request can over write this configuration.
mediacontroller	New option added	transport.localaddress_ipv6—Local Transport IPv6 Address. If specified, the sent-by field of the Via header and the hostport part of the Contact header in the outgoing SIP message is set to this value if an IPv6 transport is used. The value must be a hostname or domain name. If left empty, the outgoing transport's actual IP and port will be used for the Via header and the Contact header. **Note:** If the domain name used in the SRV record query is specified, sip.transport.localaddress.srv must be set to true to prevent the port part being automatically generated by the SIP stack.
sip	Existing option removed	sip.localhostname—Provides the ability to configure the host address part of Contact, Call-ID and From headers.
sip	Existing option removed	localport—Similar to sip.localhostname, this parameter provides the ability to configure the port part of Contact, Call-ID and From headers.
sip	Existing option removed	localsecureportport—Similar to sip.localhostname, this parameter provides the ability to configure the port part of Contact, Call-ID and From headers when SIPS is used.
sip	Existing option modified	transport.localaddress.srv—Specifies whether sip.transport.localaddress contains an SRV domain name. If set to true, the port part will not be automatically generated by the SIP stack. Otherwise, the outgoing transport's port is used together with the hostname specified by sip.transport.localaddress. Possible Values: true, false (default)

Table 246: Configuration Option Changes—8.1.6 Reporting Server

Configuration section name	Type of change	Configuration options and details
cdr	New option added	media-service-cdrs.reduce—Disable the storage of RM and MCP CDRs that have certain media service types. When this option is set to true, any RM CDR or MCP CDR with media service type set to: media, cpd, record, or conference is not stored in the remote database
cdr	New option added	or-call-counting.enable—Enable the counting of MCP VXML calls and MCP Treatment without VXML calls for peaks and arrivals data. When this option is set to true, the RS calculates peaks and arrivals for MCP VXML calls and MCP Treatment calls (without VXML).

Table 247: Configuration Option Changes—8.1.6 CTI Connector

Configuration section name	Type of change	Details
ctic	New option added	copy-originatingleg-headers—The CTI Connector copies all headers matching the configured list of prefixes onto other call legs towards the MCP and the agent.
icmc	Existing option modified	eccvariablelist—CTI Connector takeS the configured list of ECC variable names and registerS it with ICM through initial REGISTER_VARIABLES message. The ECC variable names along with their tag values should be separated by comma. The ECC variable may be specified without a tag, in which case, CTIC will generate a tag for it. Example: userECCVar1:5010,userECCVar2,userECCVar3:5011 Default value is userSessionId:5000
icmc	New option added	eccSessionIdVarName—CTI Connector takes the SessionId and sends it to ICM through this variable. Example: userECCVar1. The variable name configured here (userECCVar1 in the example) should be specified in the ECC Variables list. If not, the SessionId will not be sent in the NEW_CALL message. By default, it will be set to userSessionId and the SessionId will be sent through userSessionId. If it is empty, the SessionId will not be sent in the NEW_CALL message.

Table 247: Configuration Option Changes—8.1.6 CTI Connector (Continued)

Configuration section name	Type of change	Details
tenant1	Existing option modified	Ports—List of listener port numbers separated by comma on which CTIConnector waits for TCP connection from Cisco VRU-PG. Optionally, the Trunk Group IDs supported by the PIMs can also be configured here. The Trunk Group IDs can be listed for a particular PIM separated by &. For example: 6000:1&2,7000,8000:3&4 In the above example 6000 supports Trunk Group IDs 1 and 2, 7000 does not specify the TG IDs it supports and 8000 supports TGIDs 3 and 4. Note: 1) Valid range for TG IDs is 0-65535. 2) Same TG IDs should not be mentioned by more than one PIM. TG IDs should be unique across all the PIMs. 3) The value mentioned as the default TrunkGroupID under ICMC section should not be specified by any of the PIMs as a supported TG.
mediacontroller	Existing option modified	inbound_allowed_media—The default allowed media types for an inbound call. All inbound calls will be limited to this set of media types in terms of SDP exchange. If set to dynamic, media type is determined from the capability SDP of the inbound call (if capability SDP is not available, it defaults to audio and video).

Table 248: Configuration Option Changes—8.1.6 Supplementary Services Gateway

Section name	Type of change	Details
[SSG]	New option added	InitiatedCallRetryFlag—Indicates how to process the requests present in the database when SSG comes up. If the option is set to 0 (zero), SSG deems all initiated requests during SSG startup as failures and invokes a notification URL for these requests. If set to 1, then SSG retries those requests. If set to 2, then SSG deletes requests which are new and initiated. If set to 3, then SSG deletes all of the database requests.

Reporting Server Database Changes

The Reporting Server database schema version is always the same as the release number of the Reporting Server installation package (IP).

- The MCP CDR tables store usage data for Media Control Platform sessions, providing details about how often a resource is used within a session.
- The RM DN and CDR tables store data for Resource Manager sessions, keeping track of DN values with 0 prefixes.

The following tables were added to the Reporting Server database for GVP 8.1.6:

- `MCP_TREAT_NV_COUNTS` tables—used to keep counts of the number of MCP calls that use the Treatment Media Service and that do not use VoiceXML.
- `MEDIA_SERVICE_ARRIVALS` tables—used to keep track of call arrivals for Media Service calls.
- `MEDIA_SERVICE_PEAKS` tables—used to keep track of call peaks for Media Service calls.
- `MCP_VXML_COUNTS` tables—used to keep counts of the number of MCP calls that use VoiceXML.
- `MCP_VXML_ARRIVALS` tables—used to keep track of call arrivals for MCP calls that use VoiceXML.
- `MCP_VXML_PEAKS` tables—used to keep track of call peaks for MCP calls that use VoiceXML.

Changes in GVP 8.1.5

The changes in GVP 8.1.5 are described in the following sections:

- Component Changes on page 1464
- Configuration Option Changes on page 1470
- Reporting Server Database Changes on page 1483

For more information about all the new features and functions in release 8.1.5, see the *Genesys Voice Platform 8.1 Deployment Guide*. For more detailed information about configuring GVP to implement the features and functions, see the *Genesys Voice Platform 8.1 User's Guide* and the *Voice Platform Solution 8.1 Integration Guide*.

Component Changes

Table 249 shows the component changes in GVP from release 8.1.4 to 8.1.5.

Table 249: 8.1.5 Component Changes

Current Component Name	Type of Change	Details
All GVP components	New features	• IPv6 communications within the platform and with compatible IPv6 servers and devices. • Components can be deployed in multi-site configurations.
	Enhancement	• Windows 2008 64-bit running as a 64-bit process. • Red Hat Enterprise Linux 5.0 AS 64-bit running as a 64-bit process.
PSTN Connector and Genesys Voice Platform interpreter (GVPi)	Components removed	• Not included in GVP 8.1.5. • Although these components are not included in 8.1.5, they are still supported. See “Deploying the PSTN Connector or GVPi in 8.1.5 Environments” on page 1442.
Resource Manager	New features	• Support for the new UCM Connector component by transforming recording sessions to NETANN style of formatting. • Support for multi-site configuration through resource sharing and consistent policy enforcement across all sites.
	New features	• A `Warning` header is processed if the SIP `INVITE` is rejected by the Media Control Platform to indicate ASR or TTS failures • Dual stack support, where one call leg uses IPv4 communication and the other leg IPv6. • Local port ranges for TCP and TLS are supported in Resource Manager’s monitoring, proxy, registrar, and subscription functions.
	Enhancements	• Support for leading zeros in the Dialed Number (DN). For example, `001234, 01234` • On a per-application basis, Resource Manager enables configuration of a reference to a Transaction List object. In the IVR Profile, the corresponding configuration option is `gvp.parameterization.list_dbid`.
Policy Server	Enhancement	• When running on Windows 64-bit in native 64-bit mode, Policy Server supports the Java Virtual Machine running in 64-bit mode.

Table 249: 8.1.5 Component Changes (Continued)

Current Component Name	Type of Change	Details
Media Control Platform	New features	• Support for unlimited conference participants. This number can be restricted through the configuration, or by the number of conferences that the server on which the MCP is running can support. • Media Server support for video mixing and video switching in conferences, where the video inputs from two or more conference participants are mixed together into the video output stream. • Media Server can indicate the current loudest participant in the mixed video output by showing a highlighted white border around the video of that participant. • Media Server support for text overlays in video frames that are being played with a standard font name and style, size, and color that is specified in a font file.
	New features	• Video is supported with dual channel call recording when the video is negotiated by the incoming calls with the MCP and streamed to the MCP. • Media Server support for dual channel call recording (both audio only and audio plus video) to a third party recorder. • Media Server support for RTP activities on both IPv4 and IPv6 interfaces. • Media Server support for the use of `a=fmtp` lines when H.263 transcoding is enabled (defined in RFC 4629). The configuration defines a list of `fmtp` lines that can be used to make an offer and as a remote SDP offer acceptance criteria.
	New features	Media Server supports transcoding of H.263 and H.264 video format. H.263 support includes the following functions: • Resolution downscaling • Frame and bit rate throttling H.264 support includes the following functions: • Profile transcoding • Resolution downscaling • Frame and bit rate throttling

Table 249: 8.1.5 Component Changes (Continued)

Current Component Name	Type of Change	Details
	New features	• Media Server supports play/record of the MP3 audio format—in other words, the MPEG 1 and MPEG 2 audio formats. • Active speaker notification requests can be sent to the conference creator at configurable intervals by using the `msml.conf.asn` event. • Dual stack support, where one call leg uses IPv4 communication and the other leg IPv6. • IPv4 and IPv6 are supported for both inbound and outbound call transfers.
	New features	• Local port ranges for TCP and TLS are supported. in Resource Manager's monitoring, proxy, registrar, and subscription functions. • A new `480 Temporarily Unavailable` error code is used if ASR or TTS reserve is enabled and the ASR or TTS resource reservation fails. A `Warning` header is process by Resource Manager. • Clearing of the Fetching Module's in-memory cache during runtime.
	New features	Next Generation Interpreter (NGI) support for: • the GVP-extension `videotextexpr` attribute. This attribute is prefixed by the `GVP-namespace` when used in the page. It accepts an ECMAScript expression which must be evaluated to an array of object. • Grammars that are specified by the `src`, `srcexpr`, or `contentexpr` attributes, as well as inline as content. • GVP extension properties for video text overlay, such as font name, style, size and color.
	New features	• NGI support for the `passwordexpr gvp-extension` attribute of the `<data>` element. This attribute is prefixed by the `gvp-namespace` when used in the page. This attribute takes an EcmaScript expression which is evaluated to a string. • NGI supports configuration of the JavaScript Engine runtime size and stack size.

Table 249: 8.1.5 Component Changes (Continued)

Current Component Name	Type of Change	Details
	New functionality	NGI now has a new parser for XML documents that are retrieved by using the `<data>` element. Its behavior differs from the 8.1.4 (and earlier) parser. However, you can revert to the old behavior by setting the value of the `[vxmli] data.use_xerces_dom_parser` configuration option in the Media Control Platform `Application` to `true`.
	Enhancement Additi	onal information in the Call Detail Records (CDR). The following usage is noted in the CDR: • ASR and TTS usage • local recording • media stream replication recording • bridging and video connection establishment • VoiceXML • gateway-based and native media server CPD or CPA. • MSML `<play>`, `<collect>`, or `<dtmf>`
	Enhancement	Reservations for ASR and TTS resource are supported. The Resource Manager can assign a reservation for these resource on a per-session basis using the `gvp.config.asr.reserve` and `gvp.config.tts.reserve Request URI` parameters.
Call Control Platform	New features	• Dual stack support, where one call leg uses IPv4 communication and the other leg IPv6. • IPv4 and IPv6 are supported for both inbound and outbound call transfers. • The connectionless SDP parameter in the device profile now supports IPv6. • A preferred default IP version can be configured for SDP offers to unjoined media endpoints.

Table 249: 8.1.5 Component Changes (Continued)

Current Component Name	Type of Change	Details
	Enhancement	• Support for cleanup of the Fetching Module's in-memory cache at runtime through the `CLEARFMCACHE` custom command that is sent to the Call Control Platform from the CCLib through Management Framework. • The caller URI can now be configured when the caller does not set the caller information in an outbound call (connection or conference leg) that is not joined to any call.
Reporting Server	New features	A new VAR Actions Summary report that summarizes the IVR actions that are encountered within an MCP call.
	Enhancement	Support for a maximum rate at which the Reporting Clients can send CDR and Events data.
CTI Connector	New features	• Dual-stack support, where the communication protocol on one call leg is IPv4 and the other is IPv6.
	New features	• A default IP version can be configured that ca be used when SDP offers are sent to an unjoined media endpoint for the first time.
Supplementary Services Gateway	New features	Supports connectivity to SIP Server support running on an IPv6 network.
Genesys Administrator (GVP-specific functions on the `Provisioning` tab)	New feature in wizard	In the IVR Profile Wizard, a username and password can be configured for GVP context services authentication, if required.
Genesys Administrator (GVP-specific functions on the `Monitoring` tab)	New reporting filters	The Call Detail Records (CDR) can be filter to provide usage data on a per call basis.
	New report	The Per-Call IVR Action Report provides detailed information about a selected session to show each IVR action within the session. This report provides data for the Media Control Platform component only.
	Enhancement	Reporting data can be filtered for a specific site or data can be combined to create system-wide reports, which include data from all sites in a multi-site environment.

Configuration Option Changes

This section describes configuration option changes for specific GVP 8.1.5 components. It contains the following tables:

- Resource Manager—Table 250, below
- Media Control Platform—Table 251 on page 1472
- Call Control Platform—Table 252 on page 1479
- Reporting Server—Table 253 on page 1481
- CTI Connector Table 254 on page 1482
- Supplementary Services Gateway—Table 255 on page 1483

Table 250: 8.1.5 Configuration Option Changes—8.1.5 Resource Manager

Configuration section name	Type of change	Configuration options and details
`cluster`	New option added	`initial-electiontimer`—Specifies that this node become the master (local RM becomes the active node) if there is no response from the remote member(s) to the election process after the specified time limit (in milliseconds).
`monitor`, `proxy`, `registrar`, and `subscription`	New option added	`sip.transport.localaddress_ipv6`—Specifies whether or not the `sent-by` field of the `Via` header and the `hostport` part of the `Record-Route` header in the outgoing SIP message is set to this value if a IPv6 transport is used.
`monitor`, `proxy`, `registrar`, and `subscription`	New option added	`sip.tcp.portrange`—Specifies the local TCP port range that will be used for the SIP transport.
`monitor`, `proxy`, `registrar`, and `subscription`	New option added	`sip.tls.portrange`—Specifies the local TLS port range that will be used for the SIP transport.
`monitor`, `proxy`, `registrar`, and `subscription`	New option added	`sip.route.default.udp`—Specifies the default IPv4 route that will be used for UDP.
`monitor`, `proxy`, `registrar`, and `subscription`	New option added	`sip.route.default.udp.ipv6`—Specifies the default IPv6 route that will be used for UDP.
`monitor`, `proxy`, `registrar`, and `subscription`	New option added	`sip.route.default.tcp`—Specifies the default IPv4 route that will be used for TCP.

Table 250: 8.1.5 Configuration Option Changes—8.1.5 Resource Manager (Continued)

Configuration section name	Type of change	Configuration options and details
monitor, proxy, registrar, and subscription	New option added	sip.route.default.tcp.ipv6—Specifies the default IPv6 route that will be used for TCP.
monitor, proxy, registrar, and subscription	New option added	sip.route.default.tls—Specifies the default IPv4 route that will be used for TLS.
monitor, proxy, registrar, and subscription	New option added	sip.route.default.tls.ipv6—Specifies the default IPv6 route that will be used for TLS.
monitor, proxy, registrar, and subscription	New option added	sip.conntimer-bucket-depth—Specifies the connection timer bucket depth and applies it to the TCP transport only.
ems	New option added	rc.cdr.max_throughput—Specifies the maximum rate at which CDR data, in bytes per second, is sent to the Reporting Server.
ems	New option added	rc.max_throughput—Specifies the maximum rate at which the upstream logging data, in bytes per second, is sent to the Reporting Server.
proxy	New option added	sip.transtimer-bucket-depth—Specifies the transaction timer bucket depth.
rm	New option added	cti-unavailable-action—Specifies that the RM will check this configuration option if, on the initial SIP INVITE the CTIC sends a specific 4xx or 5xx SIP response code that matches one of the codes that is specified in the cti-unavailable-respcode configuration option. If an error response does match, the RM assumes that the CTI Server connectivity is broken, and performs the action that is specified in this option if it is set.
rm	New option added	cti-unavailable-respcode—Specifies that the RM assumes that connectivity to the CTI Server is broken, if on the initial SIP INVITE, the CTIC sends a specific 4xx or 5xx SIP response code that matches any response code specified in this parameter. If a response code matches, the RM will not retry another CTIC instance.
rm	New option added	options-errresp-on-noresources—Specifies whether or not the RM sends an error response to the SIP OPTIONS message if it detects that all GVP resources are offline.

Table 250: 8.1.5 Configuration Option Changes—8.1.5 Resource Manager (Continued)

Configuration section name	Type of change	Configuration options and details
rm	New option added	resolve-addr-for-aor-match—Specifies whether or not the RM resolves the host name or FQDN to match the incoming resource AOR with configured resource AORs.
rm	New option added	rewrite-referto-header—Specifies whether or not the RM rewrites the host port in the Refer-To header with the Request-URIs in the mid-dialog SIP REFER message.
<Resource group>	New option added	In the gvp.lrg section, the error.notification.threshold configuration option specifies that a notification is sent if the percentage of successful calls for a Logical Resource Group (LRG) falls below a certain threshold during a service quality period.
Configuration Option Changes—IVR Profiles		
gvp.policy	New options added	asr-reserve—Specifies whether or not an MCP will allocate the ASR resource before accepting the call.
gvp.policy	New options added	tts-reserve—Specifies whether or not an MCP will allocate the TTS resource before accepting the call.
gvp.policy	New options added	retry-on-speech-reserve-failure—Specifies whether or not the RM will retry other resources when the MCP sends a ASR or TTS pre-allocation failure in the response.
gvp.policy	New options added	speech-reserve-failure-response—Specifies the response code that the RM will send if the MCP sent an ASR or TTS resource allocation failure and the retry option is set to false in profile.

Table 251 lists the configuration option changes to the Media Control Platform in 8.1.5.

Table 251: Configuration Option Changes—8.1.5 Media Control Platform

Configuration section name	Type of change	Configuration options and details
callmgr	New option added	silent_shutdown—Specifies whether or not to shutdown silently, i.e. no core or logs during shutdown. This parameter works only on Linux.
conference	New option added	highest_input—Determines the number of highest inputs used for mixing output. If 0 is set, all inputs will be used.

Table 251: Configuration Option Changes—8.1.5 Media Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
conference	New option added	threadedouputs—Specifies whether or not threaded transcoding to conference outputs is enabled. If enabled, conferences will make better use of the available processors on a system.
conference	New option added	highest_input—Specifies the number of highest inputs that are used to mix the output.
conference	New option added	video_output_type—Specifies the type of video output that will be used for conferences.
conference	New option added	video_mixer_layouts—Specifies the layouts that will be used by the conference video mixer when the layouts not specified by the application. This parameter is only active when the conference.video_output_type option is set to mixed.
ems	New option added	rc.cdr.max_throughput—Specifies the maximum rate at which CDR data, in bytes per second, is sent to the Reporting Server.
		rc.max_throughput—Specifies the maximum rate at which the upstream logging data, in bytes per second, is sent to the Reporting Server.
		rc.sqa.local_queue_max—Specifies the maximum number of data items sent to the local database file for SQA reporting.
	Default value changed	• metricsconfig.MFSINK—New default value: 0-16, 18-41, 43, 52-56, 72-74, 76-81, 127-129, 130, 132-141, 146-148 • rc.local_queue_max—New default value: 5000000 • rc.cdr.local_queue_max—New default value: 1000000 • rc.ors.local_queue_max—New default value: 1000000

Table 251: Configuration Option Changes—8.1.5 Media Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
fm	New option added	cachemaxentrysize—Specifies the maximum size of each cache entry in bytes.
	New option added	cachemaxsize—Specifies the maximum total size of the cache in bytes.
	New option added	http_proxy—Specifies the HTTP proxy to be used for HTTP requests.
	New option added	interface—Specifies the network interface IP address that is used for outgoing HTTP requests. If this configuration option has an empty value, the Media Control Platfrom automatically selects the network interface that it will use.
	New option added	no_cache_url_substring—Specifies that a URL will not be cached if it contains any one of the sub-strings in this comma-delimited list: cgi-bin, jsp, asp.
	New option added	portrange—Specifies the local port range that will be used for HTTP requests.
fm	Default value changed	• localfile_maxage—New default value: 10 • ssl_cipher_list—New default value: Empty
mpc	New option added	preferredipinterface—Specifies the preferred IP interface to use (IPv4 or IPv6) for SDP negotiation.
mpc	New option added	rtsp.localaddr—Specifies the IPv4 interface that will receive RTSP messages from the RTSP servers.
mpc	New option added	rtsp.localaddrv6—Specifies the IPv6 interface that will receive RTSP messages from the RTSP servers.
mpc	New option added	rtsp.rtp.localaddrv6—Specifies the IPv6 interface that will receive RTP media from the RTSP servers.
mpc	New option added	rtp.localaddrv6—Specifies the connection part (IPv6) of the SDP messages that are sent by the MCP.
mpc	New option added	mp3.samplingrate—Specifies the MP3 sampling rate used for encoding, in KHz.
mpc	New option added	mp3.bitrate—Specifies the MP3 encoding bit rate in kilobits-per-second, which determines the quality and size of a recorded MP3 file.

Table 251: Configuration Option Changes—8.1.5 Media Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
mpc	New option added	mp3.use_integer_transcoder—Specifies the type of MP3 transcoder.
mpc	New option added	videotranscoder.checkframerate—Specifies whether or not the transcoder for the incoming video format is enabled. Video transcoding is triggered when frame rate exceeds the maximum frame rate.
mpc	New option added	videotranscoder.checkbitrate—Specifies whether or not the transcoder for the incoming video format is enabled. Video transcoding is triggered when the bit rate exceeds the maximum bit rate.
mpc	New option added	videotranscoder.bitratecheckdelay—Specifies the bit rate check delay when the bit rate check is enabled for video transcoding. Bit rate checking starts after this options configured time interval (in milliseconds) elapses.
mpc	New option added	videotranscoder.bitratechecktolerance—Specifies the bit rate check tolerance when the bit rate check is enabled for video transcoding. Bit rate checking allows the bit rate to go over the maximum by the percentage that is specified by this parameter.
mpc	New option added	videotranscoder.h264.keyframeinterval—Specifies the i-frame generation frequency of the H264 transcoder.
mpc	New option added	videotranscoder.h264.keyframeidrinterval—Specifies the IDR frame generation frequency of the H264 transcoder. An IDR frame is a type of i-frame in H264.
mpc	New option added	videotranscoder.h264.resolutions—Specifies the list of H264 encodable resolutions that are available when H264 transcoding is applied.
mpc	New option added	videotranscoder.maxbitrate—Specifies the maximum bit rate that is used to encode when video transcoding is active.
mpc	New option added	videotranscoder.statsresetthreshold—Specifies the accumulated duration threshold (in milliseconds) at which the frame rate or bit rate statistics reset is triggered.
mpc	New option added	font_paths_win—Specifies the list of paths to the font directories on a Windows MCP system, separated by the delimiter. This information is used by the video text overlay feature.

Table 251: Configuration Option Changes—8.1.5 Media Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
mpc	New option added	font_paths_linux—Specifies the Specifies the list of paths to the font directories on a Linux MCP system, separated by the delimiter. This information is used by the video text overlay feature
mpc	New option added	multichantimeout—Specifies the RTP timeout value (in milliseconds) for the multi-channel recordings. An RTP stream is considered inactive if there is no activity within the timeout period.
mpc	New option added	conference.active_speaker_update_time—Specifies the time period (in milliseconds) that the conference active speaker is updated to the currently loudest input. The input with the highest average audio level during the update period is selected as the loudest.
mpc	New option added	rtp.source_buffer_size—Specifies the maximum number of packets that the RTP source buffer can contain.
mpc	New option added	rtp.source_buffer_video_data_size—Specifies the maximum amount of video media data (in bytes) that the RTP source buffer can contain.
mpc	New option added	vrmrecorder.preferredipinterface—Specifies the preferred IP interface that will be used (IPv4 or IPv6) when CRQM-related SDP negotiation is performed. Specifically, used to set the root connection attribute in SDP answers and the connection attribute in SDP offers.
mpc	New option added	rtp.maxrtppacketsize—Specifies the maximum size of the RTP and SRTP packets that are sent from the platform in bytes.
mpc	New option added	rtp.videobuffersize—Specifies the size of the buffer that is used to send RTP video data in bytes. This value must be high enough to buffering up to 1 second of all supported modes of the H263 and H264 video streams.
mpc	New option added	maxmediathreads—Specifies the maximum number of media threads that can be created within MPC. Retaining the default value is recommended.
mpc	New option added	rtp.fixedsocketthreads—Specifies the fixed number of RTP socket threads. The fixed number of RTP socket threads configured for this option are allocated at start-up time, and no new RTP threads are created during run-time.
mpc	Option removed	minvideoswitchtime—Replaced by the conference.active_speaker_update_time configuration option.

Table 251: Configuration Option Changes—8.1.5 Media Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
mrcpv2client	New option added	sip.transport.x—Specifies the SIP UDP transport that will be used by the MRCPv2 client.
vrm	New option added	rtp.localaddrv6—Specifies the IPv6 interface that will be used by the RTP streams to and from speech resources.
vrmrecorder	New option added	sip.transport.x—Specifies the SIP UDP transport that will be used by the VRM recorder client to listen to all IPv4 or IPv6 interfaces.
vrmrecorder	New option added	sip.transport.localaddress_ipv6—Specifies whether or not the sent-by field of the Via header and the hostport part of the Contact header in the outgoing SIP message will be set to this value if an IPv6 transport is used. The value must be a hostname or domain name.
vrmrecorder	New option added	sip.preferred_ipversion—Specifies the preferred IP version that will be used in SIP by the VRM recorder. When multiple IP addresses with different IP versions are resolved from a destination address, the first address the preferred IP version in the list with is used.
sip	New options added	• transport.0 • transport.1 • transport.2 • transport.3 • transport.4 • transport.5 —Specify the transport layer for the SIP stack and the network interfaces that are used to process SIP requests.
sip	New option added	transport.localaddress_ipv6—Specifies whether or not the sent-by field of the Via header and the hostport part of the Record-Route header in the outgoing SIP message is set to this value if a IPv6 transport is used.
sip	New option added	preferred_ipversion—Specifies the preferred IP version that will be used in the SIP transport.

Table 251: Configuration Option Changes—8.1.5 Media Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
PageCollector	Section removed	This section includes the following configuration options: • cachemode • hoststobecached • proxybypasslist • proxylist
PopGateway1	Section removed	This section includes the following configuration options: • DefaultANI • hangupcause_fetcherror • hangupcause_internalerror • hangupcause_parseerror • hangupcause_rscunavailable • AccessASRSlotAttribs • SupportSisrOutElement • UsePromptTimeoutForRecordNoInput • CacheMaxItems
Scheduler	Section removed	This section includes the following configuration option: • TaskList
Scheduler_GarbageCollector	Section removed	This section includes the following configuration options: • name • DirectoryList • priority • starttime • frequency
Scheduler_GarbageCollector_TempXMLFiles Scheduler_GarbageCollector_IISLogFiles Scheduler_GarbageCollector_Upload	Sections removed	These sections include the following configuration options: • applyUnusedtimefromProcessStart • cleansubdirs • deletesubdirs • filestodelete • path • unusedtime

Table 252 lists the configuration option changes to the Call Control Platform in 8.1.5.

Table 252: Configuration Option Changes—8.1.5 Call Control Platform

Configuration section name	Type of change	Configuration options and details
ccxmli	New option added	basichttp.recv.accessuri—Specifies the preferred IP version (IPv4 or IPv6) that will be used in the BasicHTTP access URI session.ioprocessors["basichttp"].
ccxmli	New option added	createsession.recv.accessuri—Specifies the preferred IP version (IPv4 or IPv6) that will be used in the CreateSession access URI session.ioprocessors["createsession"].
ccxmli	Display name changed	basichttp.recv.host—Display name has changed to BasicHTTP Receive - Host for IPv4 network (from BasicHTTP Receive). Specifies the IPv4 address or host name on which the basic HTTP event I/O processor will listen for HTTP requests on the IPv4 network interface.
ccxmli	Display name changed	createsession.recv.host—Display name has changed to CreateSession Receive Host for IPv4 network (from CreateSession Receive Host). Specifies the IPv4 address or host name on which to listen for HTTP requests on the IPv4 network interface.
ems	New option added	rc.cdr.max_throughput—Specifies the maximum rate at which CDR data, in bytes per second, is sent to the Reporting Server.
ems	New option added	rc.max_throughput—Specifies the maximum rate at which the upstream logging data, in bytes per second, is sent to the Reporting Server.
fm	New option added	portrange—Specifies the local port range that will be used for HTTP requests.
mediacontroller	New option added	sdp.localhost.ipv6—Specifies the IPv6 address (only the host part) of the local host that will be used in the SDP.
mediacontroller	New option added	sdp.defaultipversion—Specifies a default IP version (IPv4 or IPv6) that will be used when an SDP offer is sent to an unjoined media endpoint. If the default is not defined, IPv4 is used as the default version.
sip	New option added	conntimer-bucket-depth—Specifies the connection timer bucket depth for TCP transport.

Table 252: Configuration Option Changes—8.1.5 Call Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
sip	New option added	preferred_ipversion—Specifies the IP version to be used in SIP when multiple IP addresses with different IP versions are resolved from a destination address. The first address from the list with the preferred IP version will be used.
sip	New option added	route.default.udp.ipv6—Specifies the default IPv6 route that will be used for UDP.
sip	New option added	route.default.tcp.ipv6—Specifies the default IPv6 route that will be used for TCP.
sip	New option added	route.default.tls.ipv6—Specifies the default IPv6 route that will be used for TLS.
sip	Default value changed	transport.localaddress.srv—Default value has changed to false.
sip	Display name changed	route.default.udp—Display name has changed to Default IPv4 route for UDP from Default route for UDP Specifies the default IPv4 route that will be used for UDP.
sip	Display name changed	route.default.tcp—Display name has changed to Default IPv4 route for TCP from Default route for TCP Specifies the default IPv4 route that will be used for TCP.
sip	New option added	conntimer-bucket-depth—Specifies the connection timer bucket depth for TCP transport.
sip	New option added	preferred_ipversion—Specifies the IP version to be used in SIP when multiple IP addresses with different IP versions are resolved from a destination address. The first address from the list with the preferred IP version will be used.
sip	New option added	route.default.udp.ipv6—Specifies the default IPv6 route that will be used for UDP.
sip	New option added	route.default.tcp.ipv6—Specifies the default IPv6 route that will be used for TCP.
sip	New option added	route.default.tls.ipv6—Specifies the default IPv6 route that will be used for TLS.
sip	Default value changed	transport.localaddress.srv—Default value has changed to false.

Table 252: Configuration Option Changes—8.1.5 Call Control Platform (Continued)

Configuration section name	Type of change	Configuration options and details
sip	Display name changed	route.default.udp—Display name has changed to Default IPv4 route for UDP from Default route for UDP Specifies the default IPv4 route that will be used for UDP.
sip	Display name changed	route.default.tcp—Display name has changed to Default IPv4 route for TCP from Default route for TCP Specifies the default IPv4 route that will be used for TCP.
sip	Display name changed	route.default.tls—Display name has changed to Default IPv4 route for TLS from Default route for TLS Specifies the default IPv4 route that will be used for TLS.
sip	Display name changed	transport.localaddress—Display name has changed to Local Transport IPv4 Address from Local Transport Address. If specified, the sent-by field in the Via header and the hostport part of the Contact header in the outgoing SIP message is set to this value if an IPv6 transport is used.
sip	Options removed	• localhostname • localport • localsecureport

Table 253 lists the configuration option changes to the Reporting Server in 8.1.5.

Table 253: Configuration Option Changes—8.1.5 Reporting Server

Configuration section name	Type of change	Configuration options and details
messaging	New options added	activemq.diskStoreUsageLimit—Specifies a disk storage limit for messages that are handled by the ActiveMQ broker
persistence	New option added	rs.histonly.enabled—Specifies whether or not the Reporting Server is configured in Read-Only mode. If it is, the Reporting Server does not write to the remote database, but continues to support report queries.

Table 254 lists the configuration option changes to the CTI Connector in 8.1.5.

Table 254: Configuration Option Changes—8.1.5 CTI Connector

Configuration section name	Type of change	Details
mediacontroller	New option added	sdp.defaultipversion—Specifies the default IP version (IPv4 or IPv6) that will be used when an SDP offer is sent to an unjoined media endpoint. If the default is not defined, IPv4 is used as the default version.
mediacontroller	New option added	sdp.localhost.ipv6—Specifies the IPv6 address (only the host part) of the local host that will be used in the SDP.
mediacontroller	Default value changed	sip proxy—New default value in the format $LocalIPv6$:5080. For example, 10.10.30.205:5080
sip	New option added	mtusize—Specifies the maximum transmission unit (MTU) of the network interfaces.
sip	New option added	tcp.portrange—Specifies the local TCP port range that will be used as the SIP transport.
sip	New option added	tls.portrange—Specifies the local TLS port range that will be used as the SIP transport.
sip	New option added	transport.localaddress—If specified, the sent-by field in the Via header and the hostport part of the Contact header in the outgoing SIP message is set to this value if an IPv4 transport is used.
sip	New option added	transport.localaddress_ipv6—If specified, the sent-by field in the Via header and the hostport part of the Contact header in the outgoing SIP message is set to this value if an IPv6 transport is used.
sip	New option added	transport.localaddress.srv—Specifies whether or not the sip.transport. localaddress configuration contains the SRV domain name.
sip	New option added	conntimer-bucket-depth—Specifies the connection timer bucket depth for TCP transport.
sip	Options removed	• localhostname • localport • localsecureport

Table 255 lists the configuration option changes to the Supplementary Services Gateway in 8.1.5.

Table 255: Configuration Option Changes—8.1.5 Supplementary Services Gateway

Section name	Type of change	Details
common	New option added	enable-ipv6—Specifies whether or not the SSG is enabled to use IPv6 to communicate with SIP Server.
fm	New option added	http_proxy—Specifies the HTTP proxy that will be used for HTTP requests.
SSG	New option added	ClientPortToTServer—Specifies the local client-side TCP port that will be used for the T-Lib transport. If this parameter is not specified, SSG allows the operating system to choose the local port.

Reporting Server Database Changes

The Reporting Server database schema version is always the same as the release number of the Reporting Server installation package (IP).

Database Schema Changes

Table 256 summarizes the changes to the Reporting Server database Standard and Enterprise editions schema from GVP 8.1.4 to GVP 8.1.5 .

The MCP CDR tables store usage data for Media Control Platform sessions, providing details about how often a resource is used within a session.

The RM DN and CDR tables store data for Resource Manager sessions, keeping track of DN values with `0` prefixes.

Table 256: Database Changes—GVP 8.1.5 Standard and Enterprise Editions Schema

Reporting Server Database Changes	
Additions to MCP CDR tables	
MCP_CDR_ASR	MCP_CDR_VIDEO
MCP_CDR_TTS	MCP_CDR_VOICEXML
MCP_CDR_LOCALREC	MCP_CDR_NATIVECPA
MCP_CDR_MSREC	MCP_CDR_GATEWAYCPA
MCP_CDR_CONF	MCP_CDR_MSPLAY

Table 256: Database Changes—GVP 8.1.5 Standard and Enterprise Editions Schema (Continued)

Reporting Server Database Changes	
MCP_CDR_CODEC	MCP_CDR_MSCOLLECT
MCP_CDR_BRIDGING	
Additions to RM DN tables	
RMDN_DN_STRING	
Additions to RM CDR tables	
RM_CDR_DN_STRING	

Changes in GVP 8.1.4

The changes in GVP 8.1.4 are described in the following sections:

- "Component Changes" on page 1484
- "Configuration Option Changes" on page 1489
- "Reporting Server Database Changes" on page 1499

For more information about all the new features and functions in release 8.1.4, see the *Genesys Voice Platform 8.1 Deployment Guide*. For more detailed information about configuring GVP to implement the features and functions, see the *Genesys Voice Platform 8.1 User's Guide* and the *Voice Platform Solution 8.1 Integration Guide*.

Component Changes

Table 257 lists the component changes in GVP from release 8.1.3 to 8.1.4.

Table 257: 8.1.4 Component Changes

Current Component Name	Type of Change	Details
Resource Manager	New features	Support for Call Recording, recording clients and recording servers. • A new `Recording Servers` Resource Group, for which there is a new *parallel forking* load balancing scheme that enables Resource Manager to send the SIP request, in parallel to all contacts specified for this resource. This resource is available when HMT is enabled only.

Table 257: 8.1.4 Component Changes (Continued)

Current Component Name	Type of Change	Details
Resource Manager (continued)	New features	• A new `recordingserver` service type to support third-party recording vendors, such as Nice, Verint, and Zoom. • A new `recordingclient` service type to support MSML requests for media services. The record parameter in the SIP `Request URI` identifies the service. • New policies on tenant basis, for recording clients and servers usage limits, alarms, and burst levels.
	Enhancements	• Support for DNS procedure for HA routing as specified in RFC 3263, by the underlying SIP stack for both clients and servers—Enabling Resource Manager to create a target list of resources for SIP requests with the routing information specified in the SIP URI. • A new `exclusive` extension can be configured for the Configuration Unit (CU) in HMT environments—To enable the Resource Manager to retain the use and availability of specific resources for the parent tenant only. These *exclusive* resources will not be available to child tenants. • CPD tuning support—Resource Manager returns CPD-related service parameters to the Media Control Platform. • State information (enabled/disabled) detection of Management Framework objects—During initialization and dynamically during runtime, to enable the Resource Manager to determine the resources to calls will be routed. • Failover support for Media Server—The Resource Manager sends a failure notification to SIP Server, so that it can take alternative action for the call, based on information that is received from Solution Control Server (SCS). (In previous releases, failover was supported through SIP `OPTIONS` only.)

Table 257: 8.1.4 Component Changes (Continued)

Current Component Name	Type of Change	Details
Policy Server	New component	This component validates and resolves GVP-specific business rules (the policies that are enforced by the Resource Manager) and provides this information in response to HTTP queries from Genesys Administrator.
Media Control Platform	New features	• Call recordings can now be sent to recording servers in response to requests from SIP Server. ◆ Dual channel (audio) Call Recording with RTP streaming to a third-party recorder. ◆ Media Server can replicate the RTP streams of two inbound calls within a Call Recording session to a third-party recording. Media Server can also pass SDP data, start additional recordings, and start, pause, or resume streaming. • Call Progress Analysis (CPA) information logging can now be enabled/disabled by using `cpa.enable.log.param` and `cpa.enable.log.result` configuration options in the `mpc` section. • Media Server supports Fast Video Switching requests (RFC 5168) to update video when the active talker in the video conference changes.
	New features	• Partitioning of network traffic across different interfaces such as, SIP, HTTP, MRCP, RTSP, and RTP is supported. • A new `NEC61ISDN` transfer method—To support a single B channel Blind transfer over ISDN for the NEC NEAX 61 switch. The Media Control Platform uses the SIP `REFER` transfer to trigger the PSTN Connector to perform the transfer. • Secure debugging by using Composer with a TLS connection. • Support for Nuance Resource Manager.
MRCP Proxy	New component	This component manages access and routing to the MRCPv1 resources. It resides between all Media Control Platform and the MRCPv1 resources within a GVP deployment, acting as a proxy for MRCPv1 traffic.

Table 257: 8.1.4 Component Changes (Continued)

Current Component Name	Type of Change	Details
Call Control Platform	Enhancement	• Support for DNS procedure for HA routing as specified in RFC 3263, by the underlying SIP stack for both clients and servers. • Support for network traffic partitioning of HTTP and SIP traffic. • TLS now supported for the HTTPIO processor interface.
Reporting Server	New features	• Now reports on overall ASR and TTS usage and peak usage on calls on a per-component (ASR or TTS Server), IVR Profile, Tenant, and deployment basis. • Support for two new port configurations to connect to the Configuration Server—auto-detect, by using TLS and unsecured, by using TCP.
	Enhancement	• Support for TLS connections between Reporting Server and the Media and Call Control Platforms, Resource Manager, and MRCP Proxy. • Support for SNMP queries and traps—To enable management of Reporting Server instances.
CTI Connector	Extended OS support	• CTI Connector is now supported on Linux.
	New features	• Supports CTI integration with Cisco Intelligent Contact Management (ICM) with new GED-125 interface to support three application interfaces: ◆ Service Control Interface (SCI) ◆ Call Routing Interface (CRI) ◆ Event Data Feed (EDF) Interface
	New features	• The CTI Connector now interfaces with all other GVP components through a SIP interface (no longer HTTP).
Supplementary Services Gateway	Enhanced functionality	Support for secure communication channels with SIP Server, based on the configuration. The SSG registers all configured Resource Manager Trunk Group DNs and Route Point DNs again, when the connection is re-established.

Table 257: 8.1.4 Component Changes (Continued)

Current Component Name	Type of Change	Details
Genesys Administrator (GVP-specific functions on the `Provisioning` tab)	New feature	DID uniqueness validation—When a connection to GVP Policy Server is configured, Genesys Administrator validates DID uniqueness across the entire environment by querying Policy Server for overlaps among DIDs that are owned by all tenants.
	New configuration wizard	The Resource Policy Wizard—Enables the configuration of Resource Manager policy options for tenants and IVR Profiles, and enforces parent tenant policies on child tenants.
Genesys Administrator (GVP-specific functions on the `Monitoring` tab)	New reporting dashboards	• Computer Telephony Integration (CTI) Dashboard—Information is derived from the CTI Connector when it is deployed with IVR Server. This is data that the Resource Manager incorporates into its CDRs (for example, the current call state or the call outcome). • CTI Connector (CTIC) Dashboard—Displays near-real-time CTI Connector component and ICM connection statistics. The data that is provided in the dashboard is polled by the Reporting Server by using SNMP.
Genesys Administrator (GVP-specific functions on the `Monitoring` tab) (continued)	New reporting filters	• ASR/TTS Usage—A report that provides the overall ASR and TTS usage on calls on a per-component (ASR or TTS Server), IVR Profile, Tenant, and deployment basis. • ASR/TTS Usage Peaks—A report that provides the overall peak ASR and TTS usage on calls on a per-component (ASR or TTS Server), IVR Profile, Tenant, and deployment basis.
	Enhancement G	enesys Administrator can connect to the Reporting Server by using the IPv6 protocol. When IPv6 connectivity is enabled, Genesys Administrator reads the configuration of the first Reporting Server to which it is connected to determine the database mode and determine which reporting dashboards to display.

Configuration Option Changes

The tables in this section describe the changes to the configuration options, or parameters, for the specific components of GVP 8.1.4.It contains the following tables:

- Table 258, "8.1.4 Configuration Option Changes—Resource Manager," on page 1489
- Table 259, "Configuration Option Changes—Media Control Platform," on page 1490
- Table 260, "Configuration Option Changes—Call Control Platform," on page 1496
- Table 261, "Configuration Option Changes—Reporting Server," on page 1498
- Table 262, "Configuration Option Changes—CTI Connector," on page 1499
- Table 263, "Configuration Option Changes—PSTN Connector," on page 1499

Table 258 lists the configuration option changes to the Resource Manager in 8.1.4.

Table 258: 8.1.4 Configuration Option Changes—Resource Manager

Configuration section name	Type of change	Details
cluster Option	removed	`networkrecoverytime`
`gvp`	New option added	`nics`—Specifies a list of NICs that are to be monitored.
`monitor`	New options added	To support transports for SIP static routing: • `transport.dnsharouting` • `transport.localaddress` • `transport.requireconnthread` • `transport.routefailovertime` • `transport.routerecoverytime`
`monitor`	New options added	To support notification of the Reporting Client session status: • `sip.proxy.release-recordingclient-session-on-fail` • `sip.proxy.release-recordingserver-session-on-fail`
`proxy`	Option removed	`sip.recordroutehost`

Table 258: 8.1.4 Configuration Option Changes—Resource Manager (Continued)

Configuration section name	Type of change	Details
	New options added	To support transports for SIP static routing: • transport.dnsharouting • transport.localaddress • transport.requireconnthread • transport.routefailovertime • transport.routerecoverytime
registrar	New options added	To support transports for SIP static routing: • transport.dnsharouting • transport.localaddress • transport.requireconnthread • transport.routefailovertime • transport.routerecoverytime
subscription	New options added	To support transports for SIP static routing: • transport.dnsharouting • transport.localaddress • transport.requireconnthread • transport.routefailovertime • transport.routerecoverytime

Table 259 lists the configuration option changes to the Media Control Platform in 8.1.4.

Table 259: Configuration Option Changes—Media Control Platform

Configuration section name	Type of change	Details
callmgr	New option added	fips_enabled—Specifies whether or not Federal Information Process Standard (FIPS) mode is enabled/disabled in the MCP. When FIPS mode is enabled, FIPS 140-2 approved ciphers and algorithms only can be used in SSL connections.
	New option added	silent_shutdown—Specifies whether or not to shutdown silently, i.e. no core or logs during shutdown. This parameter works only on Linux.
conference	New option added	highest_input—Determines the number of highest inputs used for mixing output. If 0 is set, all inputs will be used.

Table 259: Configuration Option Changes—Media Control Platform (Continued)

Configuration section name	Type of change	Details
fm	New option added	cachemaxentrysize—Specifies the maximum size of each cache entry in bytes.
fm	New option added	cachemaxsize—Specifies the maximum total size of the cache in bytes.
fm	New option added	http_proxy—Specifies the HTTP proxy to be used for HTTP requests.
fm	New option added	interface—Specifies the network interface IP address that is used for outgoing HTTP requests. If this configuration option has an empty value, the Media Control Platform automatically selects the network interface that it will use.
fm	New option added	no_cache_url_substring—Specifies that a URL will not be cached if it contains any one of the sub-strings in this comma-delimited list: cgi-bin,jsp,asp.
fm	Default value changed	• localfile_maxage—New default value: 10 • ssl_cipher_list—New default value: Empty
ems	New option added	rc.sqa.local_queue_max—Specifies the maximum number of data items sent to the local database file for SQA reporting.
	Default value changed	• metricsconfig.MFSINK—New default value: 0-16,18-41,43,52-56,72-74,76-81,127-129,130,132-141,146-148 • rc.local_queue_max—New default value: 5000000 • rc.cdr.local_queue_max—New default value: 1000000 • rc.ors.local_queue_max—New default value: 1000000
log	Default value changed	• keep-startup-file—New default value: true • standard—New default value: ../logs/MCP_standard • time_format—New default value: ISO8601

Table 259: Configuration Option Changes—Media Control Platform (Continued)

Configuration section name	Type of change	Details
mpc	New option added	answerwithonecodec— Specifies the most preferred codec in the answer when an SDP offer contains more than one codec per media line, if enabled.
		conference.allowloudestvideoecho—Specifies the person that the loudest speaker in a conference will see in the video. Applicable only if the conference.video_output_algorithm parameter is loudest or confrole, where it falls back to the loudest.
		Options to enable or disable CPA logging: • cpa.enable_log_param • cpa.enable_log_result
		h264.fmtp_order_descending—Specifies whether or not the H264 FMTPs for different payloads are ordered in ascending (default) or descending order in an SDP offer.
		maxmediathreads—Specifies the maximum number of media threads that can be created within MPC. Genesys highly recommends using the default setting (16).
		rtp.aheadptime—Specifies the length of time represented by the audio in a sent-ahead packet.
		rtp.audiobuffersize—Specifies the size of the buffer used for sending audio RTP data in bytes. This value must be an integer that is greater than 0 and less than or equal to the maximum integer as defined by the Genesys Administrator Help. If you specify 0, the buffer size is initially set to 120000, and is increased automatically if more space is needed.
		rtp.localaddr—Enables configurability of the connection part (IPv4) of SDP messages sent by the MCP. Omit this parameter to specify that GVP uses the IP Address of the local system.

Table 259: Configuration Option Changes—Media Control Platform (Continued)

Configuration section name	Type of change	Details
mpc	New option added	rtp.maxrtppacketsize—Specifies the maximum size of RTP packets that are sent from the platform in bytes, and the maximum size of the SRTP packets being sent.
		rtp.portrange—Specifies the RTP ports to be used by MPC.
		rtp.senduponrecv—Specifies whether or not the sending of RTP packets is deferred until valid RTP packets are received.
		rtcp.tos.video—Specifies the IP Differentiated Services Field (also known as ToS) that will be set in all outgoing video RTCP packets.
		transcoders—Specifies the list of transcoders to be used by MPC. This is a multiple choice field. All of the possible values are selected to begin. You can specify that all, some, or no values are selected.
		rtp.videobuffersize—Specifies the size of the buffer used for sending RTP video data in bytes.
		Options to support bandwidth handling requirements for third-party vendors: • sdp.audiobandwidth • sdp.videobandwidth
		• vrmrecorder.srtp.cryptomethods—Specifies a list of crypto suites that correspond to advertised capabilities offered by the MCP to a recording server using SDP.
		• vrmrecorder.srtp.mode—Specifies the Secure Real-Time Transport Protocol (SRTP) mode for the MCP to use for recording sessions
		• vrmrecorder.srtp.sessionparams—Specifies a list of session parameters for a recorder that the MCP will accept.
		• vrmrecorder.srtp.sessionparamsoffer—Specifies a list of session parameters that the MCP will include in its SDP offers to a recording server.
mpc	Default value changed	• h264.fmtp—New default value: profile=b; level=1.1; packetization-mode=*;|profile=cb; level=1.1; packetization-mode=*;|profile=m; level=1.1; packetization-mode=*;|profile=e; level=1.1; packetization-mode=*;

Table 259: Configuration Option Changes—Media Control Platform (Continued)

Configuration section name	Type of change	Details
mpc	Default value changed	• transfermethods—New default value: HKF REFER REFERJOIN MEDIAREDIRECT ATTCOURTESY ATTCONSULT ATTCONFERENCE ATTOOBCOURTESY ATTOOBCONSULT ATTOOBCONFERENCE NEC61ISDN
msml	New option added	grammar.builtin:dtmf/currency—Specifies the built-in currency grammar path relative to grammar.builtin_basepath_win or grammar.builtin_basepath_linux or grammar.builtin_baseurl.
		play.basepath—Specifies the path pointing to the root directory of prompt media.
		play.h264videoformat—A comma-separated list of H.264 video formats that are used for selecting H.264 video files to play.
		play.usedefaultsearchorder—Specifies the audio file search order for MSML prompt announcement.
netann		annc.h264videoformat—A comma-separated list of H.264 video formats that are used for selecting H.264 video files to play.
sessmgr		appmodules_win—Specifies the list of names of app modules to be initialized on startup for the Windows platform. This is a multiple choice field. All of the possible values are selected to begin. You can specify that all, some, or no values are selected.
		modules_win—Specifies the list of MCP Application Modules to be loaded, in the order defined, for the Windows platform. This is a multiple choice field. All of the possible values are selected to begin. You can specify that all, some, or no values are selected.
sip	New option added	• transport.dnsharouting—Specifies whether or not the DNS High Availability routing (based on RFC 3263) is turned on.
		• transport.localaddress—If specified, the sent-by field of the Via header and the hostport part of the Contact header in the outgoing SIP message is set to this value.
sip	New option	• transport.localaddress.srv—Specifies whether or not the sip.transport.localaddress configuration option contains an SRV domain name.
		• transport.requireconnthread—Specifies whether or not the separate connection thread instance is required for the SRV query to work. This valued should be set to true in the MCP Application.

Table 259: Configuration Option Changes—Media Control Platform (Continued)

Configuration section name	Type of change	Details
		Options that specify the failover and recovery time (in seconds) for SIP static routing and DNS HA routing, such as: • `transport.routefailovertime` • `transport.routerecoverytime`
	Default value changed	• `prack.support`—New default value: `0`
	Default value changed	• `transfermethods`—New default value: `HKF REFER REFERJOIN MEDIAREDIRECT ATTCOURTESY ATTCONSULT ATTCONFERENCE ATTOOBCOURTESY ATTOOBCONSULT ATTOOBCONFERENCE NEC61ISDN`
`vrm`	New options added	Options that specify the maxage and maxstale, in milliseconds, that a native DTMF recognizer uses for an external grammar fetching, such as: • `client.dtmf.maxage` • `client.dtmf.maxstale`
`vrmrecorder`	New section added	Options that support voice recognition (VRM) recorders and clients, such as: • `sip.transport.0` • `sip.localport` • `sip.localsecureport` • `sip.transport.1` • `sip.transport.2`
`vxmli`	New options added	To specify the TLS ports, certificate, key and password for recording clients: • `debug.server.tlsport` • `debug.server.tlsport.public` • `debug.server.tlscert` • `debug.server.tlskey` • `debug.server.tlspassword`
		Options that support the built-in grammars base path for Windows and Linux and the base URL, such as: • `grammar.builtin_basepath_win` • `grammar.builtin_basepath_linux` • `grammar.builtin_baseurl`

Table 259: Configuration Option Changes—Media Control Platform (Continued)

Configuration section name	Type of change	Details
vxmli	New option added	initial_request_maxage—Specifies the maximum age (in ms) of content that the VXML document is willing to use.
		session_vars—Specifies the session variables.
	Default value changed	expose.nlsml.dom—New default value: false
		grammar.builtin:dtmf/currency—New default value: grammar.builtin:dtmf/currency=dtmf/currency.grxml
		grammar.builtin:dtmf/date—New default value: grammar.builtin:dtmf/date=dtmf/date.grxml
		grammar.builtin:dtmf/number—New default value: grammar.builtin:dtmf/number=dtmf/number.grxml
		grammar.builtin:dtmf/phone—New default value: grammar.builtin:dtmf/phone=dtmf/phone.grxml
		grammar.builtin:dtmf/time—New default value: grammar.builtin:dtmf/time=dtmf/time.grxml

Table 260 lists the configuration option changes to the Call Control Platform in 8.1.4.

Table 260: Configuration Option Changes—Call Control Platform

Configuration section name	Type of change	Details
ccpccxml	Default value changed	fips_enabled—New default value: false
	Option removed	disable_rs
ccxmli	New options	To support Secure Socket Layer (SSL) sessions with basic HTML, such as: • ssl • ssl.recv.cert_file • ssl.recv.private_key_file • ssl.recv.password • ssl.recv.protocol_type

Table 260: Configuration Option Changes—Call Control Platform (Continued)

Configuration section name	Type of change	Details
ems	Default value changed	rc.cdr.local_queue_max—New default value: 1000000
	Default value changed	rc.local_queue_max—New default value: 5000000
ems	Default value changed	rc.ors.local_queue_max—New default value: 1000000
fm	New option	interface—Specifies the network interface IP address that is used for outgoing HTTP requests. If this configuration option has an empty value, the Media Control Platform automatically selects the network interface it will use.
	Default value changed	localfile_maxage—New default value: 10
	Default value changed	ssl_cipher_list—New default value: Empty
log	New option added	check-point—Specifies how often, in hours, the application generates a check point log event to divide it into equal sections of time.
	New option added	compatible-output-priority—Specifies whether or not the application uses 6.x output logic.
	New option added	keep-startup-file—Specifies whether or not thestartup segment of the log that contains the initial configuration will be retained.
	New option added	message_format—Specifies the format of the log record headers that an application uses when it writes logs to the log file.
	New option added	print-attributes—Specifies whether or not the application attaches extended attributes, if any exist, to a log event that it is sending to the log output.
	New option added	time_convert—Specifies the system in which an application calculates the log record time when it generates a log file.
	New option added	time_format—Specifies how to represent the time in a log file when an application generates log records.
	Default value changed	standard—New default value: ../logs/ccp_standard

Table 260: Configuration Option Changes—Call Control Platform (Continued)

Configuration section name	Type of change	Details
mediacontroller	Default value changed	bridge_server—New default value: $LocalIP$:5060
session	New option added	knownheaders—In addition to known headers, as defined in RFC3261, this parameter accepts a space delimited header list that allows you to expand the definition.
sip	New options added	To support transports for SIP static routing: • transport.dnsharouting • transport.localaddress • transport.localaddress.srv • transport.requireconnthread • transport.routefailovertime • transport.routerecoverytime • headerutf8verification

Table 261 lists the configuration option changes to the Reporting Server in 8.1.4.

Table 261: Configuration Option Changes—Reporting Server

Configuration section name	Type of change	Details
messaging	New options added	Enables the receipt of data from reporting clients through a TLS secure socket: • activemq.connectionMode • activemq.tlsPort • activemq.tlsKeyStore • password
reporting	New option added	binding.address—Specifies the IP address of the interface that is used to bind the Reporting Server service.
agentx	New options added	To support connection attempts and delays to SNMP Master Agent from Subagent: • max_connection_attempt • connection_delay_sec • trapfilterfile

Table 262 lists the configuration option changes to the CTI Connector in 8.1.4.

Table 262: Configuration Option Changes—CTI Connector

Configuration section name	Type of change	Details
ctic	New option added	CTICFramework—Specifies the CTI framework that the CTI Connector will use for CTI functions, Genesys or Cisco.
	Option removed	RMIPAdd
Tenant1	New section	To support tenants and listener ports for TCP connection from Cisco VRU-PG: • TenantName • Ports
ICMC	New section	Options to specify Cisco's Intelligent Contact Management (ICM) configuration.

Table 263 lists the configuration option change to the PSTN Connector in 8.1.4.

Table 263: Configuration Option Changes—PSTN Connector

Configuration section name	Type of change	Details
GatewayManager	New option added	TNZXferPrehangupWaitTime—Specifies the time to wait before hang-up after receiving a successful response for dialing digits in ECT New Zealand transfer.
DialogicManager_Route1	New option value	The TBCTType configuration option supports a new two-channel transfer type, ECT New Zealand with the new ECTExplicit_NZ option value.

Reporting Server Database Changes

The Reporting Server database schema version is always the same as the release number of the Reporting Server installation package (IP).

Database Schema Changes

Table 264 summarizes the changes to the Reporting Server database Standard and Enterprise editions schema from GVP 8.1.3 to GVP 8.1.4. These tables are intended to store usage count and peak usage data (Operational Reporting) for ASR and TTS resources.

Table 264: Database Changes—GVP 8.1.4 Standard and Enterprise Editions Schema

Additions for ASR	Additions for TTS
Arrivals	
ASR_ARRIVALS_5MIN	TTS_ARRIVALS_5MIN
ASR_ARRIVALS_30MIN	TTS_ARRIVALS_30MIN
ASR_ARRIVALS_HOUR	TTS_ARRIVALS_HOUR
ASR_ARRIVALS_DAY	TTS_ARRIVALS_DAY
ASR_ARRIVALS_WEEK	TTS_ARRIVALS_WEEK
ASR_ARRIVALS_MONTH	TTS_ARRIVALS_MONTH
Peaks	
ASR_PEAKS_5MIN	TTS_PEAKS_5MIN
ASR_PEAKS_30MIN	TTS_PEAKS_30MIN
ASR_PEAKS_HOUR	TTS_PEAKS_HOUR
ASR_PEAKS_DAY	TTS_PEAKS_DAY
ASR_PEAKS_WEEK	TTS_PEAKS_WEEK
ASR_PEAKS_MONTH	TTS_PEAKS_MONTH

Changes in GVP 8.1.3

The changes in GVP 8.1.3 are described in the following sections:

- Component Changes, page 1501
- Configuration Option Changes, page 1501

For more information about all the new features and functions in release 8.1.3, see the *Genesys Voice Platform 8.1 Deployment Guide*. For more detailed information about configuring GVP to implement the features and functions, see the *Genesys Voice Platform 8.1 User's Guide* and the *Voice Platform Solution 8.1 Integration Guide*.

Component Changes

Table 265 shows the component changes in GVP from release 8.1.2 to 8.1.3.

Table 265: 8.1.3 Component Changes

Current Component Name	Type of Change	Details
All GVP components	New feature	Client-Side Port Definition (CSPD) for increased security.
	Extended OS support	• Windows Server 2008 64-bit (except for PSTN Connector) • Red Hat Enterprise Linux 5.4 64-bit. • MS SQL 2008 with clustered and/or replicated (for Reporting Server) compatibility for high availability.
	Enhancement	GVP components are now backwards compatible when deployed with earlier installations of GVP 8.x releases.
Media Control Platform, Call Control Platform, and CTI Connector	New functionality	SIP static routing is supported with an active-active pair of Resource Managers.
PSTN Connector	New functionality	The GVP 8.1.310.00 (and later) PSTN Connector generates three digit port numbers. Previously, the generated port numbers were two digits. **Note:** If you are migrating to GVP 8.1.310.00 or later, you must provision your IVR ports to accommodate this change.
CTI Connector	Extended support	IVR Server 8.x is supported in standard environments.
Reporting Server	Enhancement	An operation mode is supported without a backend persistent database. This mode still allows for the real-time reporting such as the dashboards, and the Active Call Browser report.

Configuration Option Changes

Table 266 describes the changes to the configuration options, or parameters, for the specific components of GVP 8.1.3.

Table 266: 8.1.3 Configuration Option Changes

Component	Option/Section Name	Type of Change	Details
Resource Manager	`proxy` section	New option added.	• `sip.proxy.recordroutehost`—Specifies the host to be used for the Record-Route when an INVITE is forwarded when Resource Manager is in stand-alone mode. The value specified can either be configured as an IP address, or FQDN. If the value is empty, the IP address of the outgoing transport is used.
Media Control Platform	`sessmgr` section	New option added.	• `acceptcalltimeout`—Specifies the time, in milliseconds, to wait after an alert is issued when the application module does not accept the inbound call before disconnecting it.
	`sip` section	New options added.	• `transport.staticroutelist`—Specifies, in a pipe delimited list, the static route groups.
Call Control Platform	`ccpccxml` section	New option added	• `sip.send_progressing`—Specifies whether CCP is to send the 180 SIP response with the `<accept>` tag for all incoming calls.
	`sip` section	New options added.	• `transport.staticroutelist`—Specifies, in a pipe delimited list, the static route groups. • `routeset`—Specifies the route set for non-secure SIP outbound calls. If defined, this route set is inserted as the ROUTE header for all outgoing calls and forces the MCP to send the SIP messages through this defined route set.
CTI Connector	`ctic` section	New option added.	• `CTIFramework`—Specifies which CTI framework to use for CTI functionality.
	`sip` section	New option added.	• `transport.staticroutelist`—Specifies, in a pipe delimited list, the static route groups.

Table 266: 8.1.3 Configuration Option Changes (Continued)

Component	Option/Section Name	Type of Change	Details
PSTN Connector	`DialogicManager` section	New option added.	• `ATTConfSleepTimeBeforeAnswer`—Specifies the duration, in milliseconds, for which PSTN Connector must wait before connecting the agent, and the caller in an AT&T Conference Transfer.
Supplementary Services Gateway	`Tenant1` section	New option added.	• `dialprefix`—Specifies the number that will prepend all target numbers for outbound calls across all IVR Profiles for the tenant.
Reporting Server	`reporting` section	New option added.	• `db.query.timeout.max`—Specifies the maximum time, in seconds, for Reporting Server to query the database before cancelling the request.
	`persistence` section	New option added.	• `rs.nodb.enabled`—Specifies whether to run the Reporting Server without a backend database. When operating in this mode, Reporting Server still supports the real-time reports such as the Dashboards, and the Active Call Browser report.

Changes in GVP 8.1.2

The changes in GVP 8.1.2 are described in the following sections:

- Component Changes on page 1504
- Configuration Option Changes on page 1509
- Reporting Server Database Changes on page 1520

For more information about all the new features and functions in release 8.1.2, see the *Genesys Voice Platform 8.1 Deployment Guide*. For more detailed information about configuring GVP to implement the features and functions, see the *Genesys Voice Platform 8.1 User's Guide* and the *Voice Platform Solution 8.1 Integration Guide*.

Component Changes

Table 267 shows the component changes in GVP from release 8.1.1 to 8.1.2.

Table 267: 8.1.2 Component Changes

Current Component Name	Type of Change	Details
All GVP Components	New features	• Multi-tenancy—To support hosted and managed-services providers with principally hierarchical multi-tenancy features, which allows administrators to customize configuration, policy management, and reporting on a per-tenant basis to suit their customers needs.
	Extended capability features	• Components now interoperates with the following telephony and routing system devices, protocols, and operating systems: ◦ Windows Server 2008 ◦ Red Hat Enterprise Linux 5.0 Advanced Server ◦ MS SQL 2008 and Oracle 11g (for Reporting Server) ◦ Oracle 10g Real Application Cluster (for Reporting Server)
All GVP Components (continued)	Enhanced functionality	• Capacity enhancements—Provided through an extended number of ports per management domain, and for single and multiple site configurations. Also provided through an extended number of tenants, and the number of toll-free and DID numbers for each tenant, when a single GVP system is deployed for Software as a Service (SaaS).
Media and Call Control Platforms	Enhanced functionality	• These components now have integrated Fetching Module functionality. Previously, the Fetching Module was a separate component, but it is now a fully integrated module within the Media and Call Control Platforms and is included in the respective component installation packages. Also, the Squid caching proxy is no longer a required prerequisite, but is now optional. • Provide Differentiated Services support for SIP (TCP/TLS/UDP).

Table 267: 8.1.2 Component Changes (Continued)

Current Component Name	Type of Change	Details
Media Control Platform	New features	• Quality Advisor—A new system performance measurement tool, which provides notification generation based on service quality metrics, time measurement for specific system tasks, and access to recorded utterances and full-call recordings captured for failed calls. • Support for the PSTN Connector.
	Enhancements to application modules	• Features that were previously provided by Genesys Stream Manager (7.x). Media services and new codec formats are now provided for voice delivery associated with outbound calling, call parking, call recording, conferencing, and IVR prompting. • Flexible packet size and configurable SDP `ptime`, which controls the duration and indirectly, the arrival time for RTP packets. • Support for outgoing RTP packets with Differentiated Services (DS) field and an RTP jitter buffer.
Call Control Platform	New features	• PRACK (reliable provisional responses) for SIP. • Sending MSML objects and receiving MSML events through SIP `INFO` messages. • RFC 5552, adding CCXML session IDs to outgoing SIP `INVITE` messages.
Resource Manager	New features	• The Differentiated Services field—Used to set the type-of-service priority for outbound SIP message packets for UDP, TCP, and TLS transport protocols. • Outbound call distribution—Enhanced to include `prediction factor (factor-p)`, which represents the expected ratio of agent calls to customer calls in a campaign. • Support for the PSTN Connector.
Supplementary Services Gateway	New features	• Outbound calls using the Legacy GVP Interpreter (GVPi). • Digest Access Authentication—A method used by web servers to negotiate credentials with a web user by using HTTP.

Table 267: 8.1.2 Component Changes (Continued)

Current Component Name	Type of Change	Details
PSTN Connector	New component	• A new component which supports TDM networks through Dialogic boards, This component facilitates ease of migration to GVP 8.x for those customers who are using Dialogic technology.
Reporting Server	New features	• Multi-site reporting—Reports from multiple independent Reporting Servers can be aggregated to include data across multiple sites. • Service Quality Analysis—Call failure and latency reporting data is now provided for inbound and outbound calls. • Virtual Reporting Objects—Reporting tags can be used on IVR Profiles, which can then be queried based on the tag. • New Historical Arrival and Peak Reports for the CTI Connector and PSTN Connector.
Reporting Server (continued)	New features	• Six week average granularity filters for the Summary and Peak Reports. • Reports based on DID information can be generated.
	Enhanced functionality	• Enhanced and expanded reporting features to display, summarize, and list multiple levels of call statistics in a multi-tenant structure. Using Genesys Administrator, reports can be accessed remotely by the service provider's customers

Table 267: 8.1.2 Component Changes (Continued)

Current Component Name	Type of Change	Details
Genesys Administrator (GVP-specific functions on the `Provisioning` tab)	New features	• Hierarchical Multi-Tenancy (HMT) is now supported, enabling management of tenant parent-child relationships. Tenants are organized and viewed in a tree hierarchy with no limit to the depth of the tree and permissions can be configured to allow or restrict access. In addition, policies can now be assigned to a tenant (and enforced for child tenants) or an IVR Profile. • DID Groups are now used to organize Dialed Numbers (DN), which are assigned to IVR Profiles and owned by individual tenants at various levels of the multi-tenant hierarchy.
	New wizards and tools	• Resource Group Migration Tool—Enables migration of non-gateway resources, which are in legacy format, to the new format or configuration units. The tool is intended to be used only once. • Bulk Operations Wizard—Enables the user to perform bulk DID operations, such as, adding moving, and deleting DID Groups. • MCP Configuration Wizard—Enables the user to provision the TCP/IP options after one or more Media Control Platform instances are installed on a single host. • The Data Retention Wizard—Enables the user to provision the data retention policies on a per-tenant and per-IVR Profile basis. • Bulk Tenant Creation Wizard—Enables the user to create tenants in bulk by importing the tenant data from a CSV file.
Genesys Administrator (GVP-specific functions on the `Provisioning` tab) (continued)	Functionality enhanced or modified	• The Resource Groups Wizard has a new configuration page to support HMT. The Tenant page (shown only for non-gateway resources) enables the selection of child tenants to which this resource group will be exclusively assigned.
	Enhanced usability feature	• Many usability features have been enhanced in this release of Genesys Administrator. For more information about how to use Genesys Administrator, see the *Genesys Administrator 8.0 Help* file.

Table 267: 8.1.2 Component Changes (Continued)

Current Component Name	Type of Change	Details
Genesys Administrator (GVP-specific functions on the `Monitoring` tab)	New features	• Service Quality Analysis—New Failure, Latency, and Summary Reporting.available with four levels of granularity, such as, hourly, daily, monthly, and weekly.
	New reporting dashboards	• PSTN Connector Dashboard—Displays call metrics for each PSTN instance and for the TDM boards that are managed by each PSTN Connector component. • Supplementary Services Gateway Dashboard—Displays activity for one or more Supplementary Services Gateway components, IVR Profiles, or tenants. • Fetch Performance Dashboard—Displays fetch statistics for one or more Media or Call Control Platforms. • Service Quality Dashboard—Displays call data for a set of selected IVR Profiles.
	Functionality enhanced or modified	• Management Framework can now be configured for one or more connections to support one or more Reporting Server in an enterprise environment. • The Voice Platform Dashboard now provides utilization metric for tenants. • The CDR Reporting time range is updated based on the time of report generation when the report is refreshed or re-generated by other means.

Table 267: 8.1.2 Component Changes (Continued)

Current Component Name	Type of Change	Details
Genesys Administrator (GVP-specific functions on the `Monitoring` tab) (continued)	Functionality enhanced or modified	• Management Framework can now be configured for one or more connections to support one or more Reporting Server in an enterprise environment. • The Voice Platform Dashboard now provides utilization metric for tenants. • The CDR Reporting time range is updated based on the time of report generation when the report is refreshed or re-generated by other means. • The CDR Reporting Component Type filter is now mandatory. • Tenant Call Arrival and Call Peak reports are now available. • VAR Summary Reports can now be filtered for either IVR Profile or tenant.
	Enhanced usability features	• Filter panels on the GVP report screen have many modifications, such as: • The height is adjustable and the filter panels are now collapsible from the title bar. • Five new tabs for grouping related filters, each with many fields with which to specify the filtering criteria.

Configuration Option Changes

The following tables describe the changes to the configuration options, or parameters, for specific components of GVP 8.1.2:

- Resource Manager and IVR Profiles—Table 268 on page 1510
- Media Control Platform—Table 269 on page 1511
- Call Control Platform—Table 270 on page 1517
- CTI Connector—Table 271 on page 1518
- Supplementary Services Gateway—Table 272 on page 1518
- Reporting Server—Table 273 on page 1519

Table 268 describes Resource Manager and IVR Profile changes.

Table 268: Resource Manager Configuration Changes in GVP 8.1.2

Option/Section Name	Type of Change	Details
`cluster` section	New option added.	• `ha-mode`—Indicates the cluster mode in which the Resource Manager instances are configured.
`log` section	Default value changed	• `time_format`—New default value: `ISO8601`
`monitor` section	New options added	• `sip.transport.0.tos` • `sip.transport.1.tos` • `sip.transport.2.tos` • `sip.mtusize`
`proxy` section	New options added	• `sip.timer_C` • `sip.timer_C1` • `sip.transport.0.tos` • `sip.transport.1.tos` • `sip.transport.2.tos`
	Option removed	• `sip.timer.ci_proceeding`
`registrar` section	New options added	• `sip.transport.0.tos` • `sip.transport.1.tos` • `sip.transport.2.tos`
`subscription` section	New options added	• `sip.transport.0.tos` • `sip.transport.1.tos` • `sip.transport.2.tos` • `sip.mtusize`

Table 269 describes Media Control Platform changes.

Table 269: Media Control Platform Configuration Changes in GVP 8.1.2

Option/Section Name	Type of Change	Details
conference section	Default value changed	• `video_output_algorithm`—New default value: `confrole`
`cpa` section	New options added	• `gateway.events`—Replaces the `audiocodes.events` option. • `outbound.native.ignoreconnectevent`—Replaces the `types` option. • `outbound.native.initialstate` • `outbound.method`
	Options removed	• `audiocodes.events` • `types`
`fm` section	New section added	Parameters to support the integration of the Fetching Module functionality, which was a separate component in previous releases but is now integrated with the Media and Call Control Platforms.

Table 269: Media Control Platform Configuration Changes in GVP 8.1.2 (Continued)

Option/Section Name	Type of Change	Details
ems section	New options added	• Options to support Service Quality Advisor (SQA) feature functionality, for example, `rc.sqa.msg_broker_uri` • Options to support Service quality and latency, and status update interval for data collection, for example, `dc.serviceQualityPeriod`.
	Default value changed	• `metricsconfig.MFSINK`—New default value: `0-16, 18-41, 43, 52-56, 72-74, 76-81, 127-129, 130, 132-141` • `logconfig.DATAC`—New default value: `0-2, 4|*|*` • `log_write_buffer_size`—New default value `16384` • `dc.default.metricsfilter`—New default value: `0-16, 18, 25, 35, 36, 41, 52-55, 74, 128, 136-141` • `rc.local_queue_path`—New default value: `reportingClientQueue.db`
	Options removed	• `rc.msg_broker_uri` • `rc.cdr.msg_broker_uri` • `rc.ors.msg_broker_uri`

Table 269: Media Control Platform Configuration Changes in GVP 8.1.2 (Continued)

Option/Section Name	Type of Change	Details
mpc section	New options added	• Options to support ptime for AMR, AMR-WB, G.722, G.726_32, G.729, GSM, PCMA, and PCMU codecs in the format <codec>.ptime, for example, amr.ptime. • cpa.voice_level_db • dtmf.inband_amplitude • dtmf.multidtmfonetimestamp • g729.fmtp • maxrecordfilesize • Options to support RTP jitter buffer, for example, rtp.dejitter.delay • rtp.localaddr—Replaces the rtp.porthigh option. • rtp.portrange—Replaces the rtp.portlow option. • rtp.tos • rtp.prefilltime • rtcp.tos • rtsp.connection.portrange • rtsp.rtp.localaddr • rtsp.rtp.portrange • Options which specify which origin to match in the Session Description Protocol (SDP), for example, sdp.map.origin.[n].dtmftype and sdp.map.origin.[n].confgain.
		• silencefilltimeout • telephone_event.ptime • playremoteflushtimeout • playremoteeodtimeout • voipmetrics.enable

Table 269: Media Control Platform Configuration Changes in GVP 8.1.2 (Continued)

Option/Section Name	Type of Change	Details
mpc section (continued)	Default value changed	• cpa.keptdur_before_statechange—New default value: 0 • cpa.faxdur—New default value: 160 • dtmf.duration—New default value: 200 • dtmf.gap—New default value: 100 • dtmfcontrolevttypesize—New default value: 10000 • rtp.portrange—New default value: 20000-65535 • rtsp.connection.portrange—New default value: 14000-15999
	Options removed	• rtp.porthigh and rtp.portlow—Options removed and replace by one new option, rtp.portrange • rtp.localaddr
mrcpv2client section	New option added	• sip.transport.0.tos • sip.localsecureport • sip.transport.1 • sip.transport.2
mtinternal section	Options removed	• rtp_max_port • rtp_min_port • transmit_interval
	Default value changed	• transmit_rate—New default value: 10
sip section	New options added	• maxtcpaccepts • maxtlsaccepts • p-alcatel-csbu • sdpwarningheaders • Option to support IP type-of-service for transport, for example, transport.0.tos and transport.1.tos. • Options to support VoIP metrics reports, for example, voipmetrics.localhost
	Default value changed	• prack.support—New default value: 1 • referxferhold—New default value: 1

Table 269: Media Control Platform Configuration Changes in GVP 8.1.2 (Continued)

Option/Section Name	Type of Change	Details
sip section (continued)	Default value changed	• transfermethods—New default value: HKF REFER REFERJOIN MEDIAREDIRECT ATTCOURTESY ATTCONSULT ATTCONFERENCE ATTOOBCOURTESY ATTOOBCONSULT ATTOOBCONFERENCE
stack section	New option added	• connection.localaddr—Replaces the connection.type option. • connection.portrange
	Options removed	• connection.type • transport.type
	Default value changed	• connection.portrange—New default value: 10000-11999
vrm section	New options added	• rtp.localaddr • rtp.portrange • client.mrcpv2.portrange
	Options removed	• client.grammar.path • client.logmetrics • client.tmp.path • client.vggrammarbase
	Default value changed	• rtp.portrange—New default value: 20000-65535 • client.mrcpv2.portrange—New default value: 12000-13999
vxmli section	New options added	• grammar.mimetypes • inlinegrammar_by_url • local.webserver.basepath_win—Replaces the local.webserver.basepath option. • local.webserver.basepath_linux—Replaces the local.webserver.baseurl option. • recording.basepath • universals_path_win • universals_path_linux

Table 269: Media Control Platform Configuration Changes in GVP 8.1.2 (Continued)

Option/Section Name	Type of Change	Details
vxmli section (continued)	Default value changed	• grammar.builtin:dtmf/<parameter>—New default values for DTMF built-in grammar paths, where <parameter> can be currency, date, number, phone, or time, for example, http://$LocalIP$/mcp/$AppName$/grammar/dtmf/currency.grxml • local.webserver.baseurl—New default value: http://$LocalIP$/mcp/$AppName$/grammar/inlinetmp • max_num_documents—New default value: 5000
	Option removed	• local.webserver.mimetypes • local.webserver.basepath—Option removed and replaced by two new options, local.webserver.basepath_win and local.webserver.basepath_linux
PopGateway1 section	Default value changed	• New default values for DTMF built-in grammar paths, for currency, date, number, phone, or time, for example, grammar.builtin:dtmf/currency= http://$LocalIP$/mcp/$AppName$/grammar/dtmf/currency.grxml
Netann section	New options added	• annc.musicbasepath • record.maxrecordsilence—Replaces the annc.file.codecs option. • record.maxrecordtime—Replaces the annc.http.codecs option. • annc.h263videoformat • annc.h264videoformat • annc.defaultaudioext • annc.audiodefaultrepeat • conference.recordmode
	Options removed	• annc.file.codecs • annc.http.codecs

Table 269: Media Control Platform Configuration Changes in GVP 8.1.2 (Continued)

Option/Section Name	Type of Change	Details
`msml` section	New options added	• `dialogend.silentfail` • `play.musicbasepath` • `record.basepath` • `record.finalsilence`
`msml` section (continued)	New options added (continued)	• `play.h263videoformat` • `play.h264videoformat` • `defaultaudioext`
`Scheduler_GarbageCollector_Upload` section	Default value changed	• `path`—New default value: `$installationRoot$\upload`

Table 270 describes Call Control Platform changes.

Table 270: Call Control Platform Configuration Changes in GVP 8.1.2

Option/Section Name	Type of Change	Details
`ems` section	Options removed	• `rc.cdr.msg_broker_uri` • `rc.msg_broker_uri` • `rc.ors.msg_broker_uri`
`fm` section	New section added	Options to support the integration of the Fetching Module functionality, which was a separate component in previous releases but is now integrated with the Call Control Platform component.
`mediacontroller` section	New options added	• `suppress_18x_for_early_join`
	Default value changed	• `sipproxy`—New default value: `$LocalIP$:5060` • `bridge_server`—New default value: `$LocalIP$:5070` • `sip.allowedunknownheaders`—New default value: `*` (asterisk)
`sip` section	New options added	• `prack.support` • Option to support IP type-of-service for transport, for example, `transport.0.tos`

Table 271 describes CTI Connector changes.

Table 271: CTI Connector Configuration Changes in GVP 8.1.2

Option/Section Name	Type of Change	Details
`CTIC` section	New options added	• `LogMIBStatsInterval` • `OutboundCallIndicator` • `DNIndicator`
	Default value changed	• `IVRPortBaseIndex`—New default value: `-1` • `playannouncepath`—New default value: `file://localhost/treatments/PlayAnn.vxml` • `playannounceanddigitpath`—New default value: `file://localhost/treatments/PlayAnnDigits.vxml`
`mediacontroller` section	New options added	• `suppress_18x_for_early_join`
	Default value changed	• `sip.allowedunknownheaders`—New default value: `*` (wildcard placeholder)

Table 272 describes Supplementary Services Gateway changes.

Table 272: Supplementary Services Gateway Configuration Changes in GVP 8.1.2

Option/Section Name	Type of Change	Details
`sip` section	New options added	• `RMNoResourceErrorCode`
`SSG` section	Option removed	• `TenantResourceDNMap`—Option removed and changed to a new section named `Tenant1`. (See next row.)
`Tenant1` section (See note below.)	New section added	• `AccessGroup` • `RPDN` • `TGDN` • `TenantName`
Note: A `Tenant<num>` section is created for each Tenant in the deployment, for example, if there are 100 tenants, one hundred sections are created named `Tenant1`, `Tenant2`, etc up to `Tenant100`.		

Table 273 describes Reporting Server changes.

Table 273: Reporting Server Configuration Changes in GVP 8.1.2

Option/Section Name	Type of Change	Details
persistence	New options added	• rs.partitioning.enabled • rs.partitioning.partitions-per-day • rs.partitioning.upstream-start-time.enabled • rs.partitioning.upstream-partition-number • rs.storage.upstream-serializer.watermark
	Option removed	• hibernate.local.dbDirectory
schedule	New option added	• quartz.rs.dbPartitioningPeriod
	Default value changed	• quartz.rs.dbMaintenancePeriod—New default value: 0 30 1 * * ?
dbmp	New options added	• rs.db.retention.latencies.hourly.default • rs.db.retention.latencies.daily.default • rs.db.retention.latencies.weekly.default • rs.db.retention.latencies.monthly.default • rs.db.retention.sq.hourly.default • rs.db.retention.sq.daily.default • rs.db.retention.sq.weekly.default • rs.db.retention.sq.monthly.default • rs.db.retention.sq.failures.default
latency	New options added	Options to configure latency thresholds, for example, threshold.page_fetch and threshold.audio_fetch
sqa	New section added	• monitor.min.alert.number • monitor.min.latency.warn.number • service.quality.period
transaction	Section removed	• atomikos.log.dir • atomikos.working.dir

Reporting Server Database Changes

The Reporting Server database schema version is always the same as the release number of the Reporting Server installation package (IP).

Database Partitioning

Database partitioning is supported in GVP 8.1.2 and later releases. Partitioning provides improved read/write performance for the Resource Manager, Media Control Platform, Call Control Platform, and VAR CDR tables, and the Event Logs table as they can grow rapidly in large scale environments.

Partitioning is enabled during the installation of the 8.1.2 Reporting Server, if the user selects the Enterprise edition of either the Oracle or Microsoft SQL product.

There are different Reporting Database 8.1.2 schemas (located in different directories) for the Enterprise and Standard editions of Oracle and MSSQL. To create the schema that is compatible with your database selection, ensure that you are using the correct script.

Database Schema Changes

Table 274 summarizes the major changes to the Reporting Server database Standard edition schema from GVP 8.1.1 to GVP 8.1.2.

Table 274: Database Changes in GVP 8.1.2 Standard Edition Schema

Standard Edition Changes, Additions, or Deletions	
Views Added:	
CTIC_ARRIVALS	RMDN_ARRIVALS
CTIC_PEAKS	RMDN_PEAKS
PSTNC_ARRIVALS	SQ_SUMMARY
PSTNC_PEAKS	TABLE_PARTITION
Stored Procedures Changed:	
CCPCallDetailRecord_Timeout	RMCallDetailRecord_Timeout
MCPCallDetailRecord_Purge	VAR_CDR_Insert
MCPCallDetailRecord_Timeout	
Views Changed:	
CCP_ARRIVALS	PERIOD_IVR_ACTION_STATS

Table 274: Database Changes in GVP 8.1.2 Standard Edition Schema (Continued)

Standard Edition Changes, Additions, or Deletions	
CCP_PEAKS	PERIOD_RESULT_STATS
MCP_ARRIVALS	RM_ARRIVALS
MCP_PEAKS	RM_PEAKS
Table Additions:	
CCP_CDR_EXT	PSTNC_PEAKS_30MIN
CTIC_ARRIVALS_30MIN	PSTNC_PEAKS_5MIN
CTIC_ARRIVALS_5MIN	PSTNC_PEAKS_DAY
CTIC_ARRIVALS_DAY	PSTNC_PEAKS_HOUR
CTIC_ARRIVALS_HOUR	PSTNC_PEAKS_MONTH
CTIC_ARRIVALS_MONTH	PSTNC_PEAKS_WEEK
CTIC_ARRIVALS_WEEK	RMDN_ARRIVALS_30MIN
CTIC_PEAKS_30MIN	RMDN_ARRIVALS_5MIN
CTIC_PEAKS_5MIN	RMDN_ARRIVALS_DAY
CTIC_PEAKS_DAY	RMDN_ARRIVALS_HOUR
CTIC_PEAKS_HOUR	RMDN_ARRIVALS_MONTH
CTIC_PEAKS_MONTH	RMDN_ARRIVALS_WEEK
CTIC_PEAKS_WEEK	RMDN_PEAKS_30MIN
LAST_PARTITIONED	RMDN_PEAKS_5MIN
LAST_PARTITIONED_ERROR	RMDN_PEAKS_DAY
LAST_PROCESSED_JMS_MESSAGE	RMDN_PEAKS_HOUR
LATENCIES	RMDN_PEAKS_MONTH
LATENCY_CONFIGURATIONS	RMDN_PEAKS_WEEK
MCP_CDR_EXT	RM_CDR_EXT
PSTNC_ARRIVALS_30MIN	SQFAILURE_DETAILS
PSTNC_ARRIVALS_5MIN	SQ_SUMMARY_DAY
PSTNC_ARRIVALS_DAY	SQ_SUMMARY_HOUR
PSTNC_ARRIVALS_HOUR	SQ_SUMMARY_MONTH

Table 274: Database Changes in GVP 8.1.2 Standard Edition Schema (Continued)

Standard Edition Changes, Additions, or Deletions	
PSTNC_ARRIVALS_MONTH	SQ_SUMMARY_WEEK
Table Additions (continued):	
PSTNC_ARRIVALS_WEEK	
Tables Changed:	
CCP_ARRIVALS_30MIN • TIME_WRITTEN column is removed.	PERIOD_IVR_ACTION_STATS_DAY • tenantId column is added.
CCP_ARRIVALS_5MIN • TIME_WRITTEN column is removed.	PERIOD_IVR_ACTION_STATS_HOUR • tenantId column is added.
CCP_ARRIVALS_DAY • TIME_WRITTEN column is removed.	PERIOD_IVR_ACTION_STATS_MONTH • tenantId column is added.
CCP_ARRIVALS_HOUR • TIME_WRITTEN column is removed.	PERIOD_IVR_ACTION_STATS_WEEK • tenantId column is added.
CCP_ARRIVALS_MONTH • TIME_WRITTEN column is removed.	PERIOD_RESULT_STATS_30MIN • tenantId column is added. • lastUpdated column is removed.
CCP_ARRIVALS_WEEK • TIME_WRITTEN column is removed.	PERIOD_RESULT_STATS_5MIN • tenantId column is added. • lastUpdated column is removed.
CCP_CDR • CCP_CDR_Trigger is changed.	PERIOD_RESULT_STATS_DAY • tenantId column is added. • lastUpdated column is removed.
CCP_PEAKS_30MIN • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	PERIOD_RESULT_STATS_HOUR • tenantId column is added. • lastUpdated column is removed.
CCP_PEAKS_5MIN • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	PERIOD_RESULT_STATS_MONTH • tenantId column is added. • lastUpdated column is removed.
CCP_PEAKS_DAY • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	PERIOD_RESULT_STATS_WEEK • tenantId column is added. • lastUpdated column is removed.

Table 274: Database Changes in GVP 8.1.2 Standard Edition Schema (Continued)

Standard Edition Changes, Additions, or Deletions	
Tables Changed (continued):	
CCP_PEAKS_HOUR • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	RM_ARRIVALS_30MIN • TIME_WRITTEN column is removed. • TENANT_ID column is added.
CCP_PEAKS_MONTH • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	RM_ARRIVALS_5MIN • TIME_WRITTEN column is removed. • TENANT_ID column is added.
CCP_PEAKS_WEEK • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	RM_ARRIVALS_DAY • TIME_WRITTEN column is removed. • TENANT_ID column is added.
CUSTOM_VARS • ID column: Incompatible data types DECIMAL and numeric () identity • VARS column is removed. • CSID column is added. • COMP_ID column is added. • SESSION_ID column is added. • SEQUENCE_ID column is added. • START_TIME column is added. • APP_ID column is added. • NAME column is added. • VALUE column is added. • FK_VAR_CVAR constraint is removed. • cvar_value is added to indexes. • cvar_primary is added to indexes. • cvar_name is added indexes.	RM_ARRIVALS_HOUR • TIME_WRITTEN column is removed. • TENANT_ID column is added.
EVENT_LOGS • START_TIME column is added. • APP_ID column is added. • CSID_MOD column is added. • RS_TIME column is added. • SEQUENCE_ID column is added.	RM_ARRIVALS_MONTH • TIME_WRITTEN column is removed. • TENANT_ID column is added.

Table 274: Database Changes in GVP 8.1.2 Standard Edition Schema (Continued)

Standard Edition Changes, Additions, or Deletions	
Tables Changed (continued):	
MCP_ARRIVALS_30MIN • TIME_WRITTEN column is removed.	RM_ARRIVALS_WEEK • TIME_WRITTEN column is removed. • TENANT_ID column is added.
MCP_ARRIVALS_5MIN • TIME_WRITTEN column is removed.	RM_CDR • DN column: Incompatible data types VARCHAR and DECIMAL • USAGE_TENANT column is removed. • BURST_TENANT column is removed. • RM_CDR_Trigger is changed.
MCP_ARRIVALS_DAY • TIME_WRITTEN column is removed.	RM_PEAKS_30MIN • TIME_WRITTEN column is removed. • TENANT_ID column is added. • PEAK_TIME column is added.
MCP_ARRIVALS_HOUR • TIME_WRITTEN column is removed.	RM_PEAKS_5MIN • TIME_WRITTEN column is removed. • TENANT_ID column is added. • PEAK_TIME column is added.
MCP_ARRIVALS_MONTH • TIME_WRITTEN column is removed.	RM_PEAKS_DAY • TIME_WRITTEN column is removed. • TENANT_ID column is added. • PEAK_TIME column is added.
MCP_ARRIVALS_WEEK • TIME_WRITTEN column is removed.	RM_PEAKS_HOUR • TIME_WRITTEN column is removed. • TENANT_ID column is added. • PEAK_TIME column is added.
MCP_CDR • MCP_CDR_Trigger is changed.	RM_PEAKS_MONTH • TIME_WRITTEN column is removed. • TENANT_ID column is added. • PEAK_TIME column is added.

Table 274: Database Changes in GVP 8.1.2 Standard Edition Schema (Continued)

Standard Edition Changes, Additions, or Deletions	
Tables Changed (continued):	
MCP_PEAKS_30MIN • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	RM_PEAKS_WEEK • TIME_WRITTEN column is removed. • TENANT_ID column is added. • PEAK_TIME column is added.
MCP_PEAKS_5MIN • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	VAR_CDRS • VAR_ID column is removed. • ID column is added. • START_TIME column is added. • APP_ID column is added. • PK__VAR_CDRS__7A672E12: Primary key constraint columns do not match. Source: (VAR_ID) Destination: (ID). • PK__VAR_CDRS__7A672E12 is removed from indexes. • PK__VAR_CDRS__690797E6 is added to indexes.
MCP_PEAKS_DAY • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	
MCP_PEAKS_HOUR • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	
MCP_PEAKS_MONTH • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	
MCP_PEAKS_WEEK • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	
PERIOD_IVR_ACTION_STATS_30MIN • tenantId column is added.	
PERIOD_IVR_ACTION_STATS_5MIN • tenantId column is added.	

Table 275 summarizes the major changes to the Reporting Server database Enterprise edition schema from GVP 8.1.1 to GVP 8.1.2.

Table 275: Database Changes in GVP 8.1.2 Enterprise Edition Schema

Enterprise Edition Changes, Additions, Deletions	
Views Added:	
CCP_CDR	PSTNC_PEAKS
CCP_CDR_EXT	RMDN_ARRIVALS
CTIC_ARRIVALS	RMDN_PEAKS
CTIC_PEAKS	RM_CDR
CUSTOM_VARS	RM_CDR_EXT
EVENT_LOGS	SQ_SUMMARY
MCP_CDR	ABLE_PARTITION
MCP_CDR_EXT	VAR_CDRS
PSTNC_ARRIVALS	
Views Changed:	
CCP_ARRIVALS	PERIOD_IVR_ACTION_STATS
CCP_PEAKS	PERIOD_RESULT_STATS
MCP_ARRIVALS	RM_ARRIVALS
MCP_PEAKS	RM_PEAKS
Stored Procedures Added:	
CCPCallDetailRecordExt_PArch	MCPCallDetailRecordExt_PDrop
CCPCallDetailRecordExt_PDrop	MCPCallDetailRecord_PArch
CCPCallDetailRecord_PArch	MCPCallDetailRecord_PDrop
CCPCallDetailRecord_PDrop	RMCallDetailRecordExt_PArch
CDR_EXT_PArch	RMCallDetailRecordExt_PDrop
CustomVarDTO_PArch	RMCallDetailRecord_PArch
CustomVarDTO_PDrop	RMCallDetailRecord_PDrop

Table 275: Database Changes in GVP 8.1.2 Enterprise Edition Schema (Continued)

Enterprise Edition Changes, Additions, Deletions	
Stored Procedures Added (continued):	
GenericLog_PArch	VARCallDetailRecord_PArch
GenericLog_PDrop	VARCallDetailRecord_PDrop
MCPCallDetailRecord_Purge	VAR_CDR_Insert
MCPCallDetailRecord_Timeout	
MCPCallDetailRecordExt_PArch	
Stored Procedures Removed:	
CCPCallDetailRecord_Timeout	MCP_CDR_STAGE_3
CCP_CDR_EXT_FUTURE	RMCallDetailRecord_Timeout
CCP_CDR_EXT_HIST	PSTNC_ARRIVALS_30MIN
CCP_CDR_EXT_STAGE_2	PSTNC_ARRIVALS_5MIN
CCP_CDR_EXT_STAGE_3	PSTNC_ARRIVALS_DAY
CCP_CDR_FUTURE	PSTNC_ARRIVALS_HOUR
CCP_CDR_EXT_STAGE_1	PSTNC_ARRIVALS_MONTH
CCP_CDR_HIST	PSTNC_ARRIVALS_WEEK
CCP_CDR_STAGE_1	PSTNC_PEAKS_30MIN
CCP_CDR_STAGE_2	PSTNC_PEAKS_5MIN
CCP_CDR_STAGE_3	PSTNC_PEAKS_DAY
CTIC_ARRIVALS_30MIN	PSTNC_PEAKS_HOUR
CTIC_ARRIVALS_5MIN	PSTNC_PEAKS_MONTH
CTIC_ARRIVALS_DAY	PSTNC_PEAKS_WEEK
CTIC_ARRIVALS_HOUR	RMDN_ARRIVALS_30MIN
CTIC_ARRIVALS_MONTH	RMDN_ARRIVALS_5MIN
CTIC_ARRIVALS_WEEK	RMDN_ARRIVALS_DAY
CTIC_PEAKS_30MIN	RMDN_ARRIVALS_HOUR

Table 275: Database Changes in GVP 8.1.2 Enterprise Edition Schema (Continued)

Enterprise Edition Changes, Additions, Deletions	
Stored Procedures Removed (continued):	
CTIC_PEAKS_5MIN	RMDN_ARRIVALS_MONTH
CTIC_PEAKS_DAY	RMDN_ARRIVALS_WEEK
CTIC_PEAKS_HOUR	RMDN_PEAKS_30MIN
CTIC_PEAKS_MONTH	RMDN_PEAKS_5MIN
CTIC_PEAKS_WEEK	RMDN_PEAKS_DAY
CUSTOM_VARS_FUTURE	RMDN_PEAKS_HOUR
CUSTOM_VARS_HIST	RMDN_PEAKS_MONTH
CUSTOM_VARS_STAGE_1	RMDN_PEAKS_WEEK
CUSTOM_VARS_STAGE_2	RM_CDR_EXT_FUTURE
CUSTOM_VARS_STAGE_3	RM_CDR_EXT_HIST
EVENT_LOGS_HIST	RM_CDR_EXT_STAGE_1
EVENT_LOGS_STAGE_1	RM_CDR_EXT_STAGE_2
EVENT_LOGS_STAGE_2	RM_CDR_EXT_STAGE_3
EVENT_LOGS_STAGE_3	RM_CDR_FUTURE
LAST_PARTITIONED	RM_CDR_HIST
LAST_PARTITIONED_ERROR	RM_CDR_STAGE_1
LAST_PROCESSED_JMS_MESSAGE	RM_CDR_STAGE_2
LATENCIES	RM_CDR_STAGE_3
LATENCY_CONFIGURATIONS	SQFAILURE_DETAILS
MCP_CDR_EXT_FUTURE	SQ_SUMMARY_DAY
MCP_CDR_EXT_HIST	SQ_SUMMARY_HOUR
MCP_CDR_EXT_STAGE_1	SQ_SUMMARY_MONTH
MCP_CDR_EXT_STAGE_2	SQ_SUMMARY_WEEK
MCP_CDR_EXT_STAGE_3	VAR_CDRS_FUTURE
Stored Procedures Removed (continued):	
MCP_CDR_FUTURE	VAR_CDRS_HIST

Table 275: Database Changes in GVP 8.1.2 Enterprise Edition Schema (Continued)

Enterprise Edition Changes, Additions, Deletions	
MCP_CDR_HIST	VAR_CDRS_STAGE_1
MCP_CDR_STAGE_1	VAR_CDRS_STAGE_2
MCP_CDR_STAGE_2	VAR_CDRS_STAGE_3
Tables Removed:	
CCP_CDR	MCP_CDR
CUSTOM_VARS	RM_CDR
EVENT_LOGS	VAR_CDRS
Tables Changed:	
CCP_ARRIVALS_30MIN • TIME_WRITTEN column is removed.	PERIOD_IVR_ACTION_STATS_30MIN • tenantId column is added.
CCP_ARRIVALS_5MIN • TIME_WRITTEN column is removed.	PERIOD_IVR_ACTION_STATS_5MIN • tenantId column is added.
CCP_ARRIVALS_DAY • TIME_WRITTEN column is removed.	PERIOD_IVR_ACTION_STATS_DAY • tenantId column is added.
CCP_ARRIVALS_HOUR • TIME_WRITTEN column is removed.	PERIOD_IVR_ACTION_STATS_HOUR • tenantId column is added.
CCP_ARRIVALS_MONTH • TIME_WRITTEN column is removed.	PERIOD_IVR_ACTION_STATS_MONTH • tenantId column is added.
CCP_ARRIVALS_WEEK • TIME_WRITTEN column is removed.	PERIOD_IVR_ACTION_STATS_WEEK • tenantId column is added.
CCP_PEAKS_30MIN • TIME_WRITTEN column is removed. • PEAK_TIME column is removed.	PERIOD_RESULT_STATS_30MIN • lastUpdated column is removed. • tenantId column is added.
CCP_PEAKS_5MIN • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	PERIOD_RESULT_STATS_5MIN • lastUpdated column is removed. • tenantId column is added.
Tables Changed (continued):	

Table 275: Database Changes in GVP 8.1.2 Enterprise Edition Schema (Continued)

Enterprise Edition Changes, Additions, Deletions	
CCP_PEAKS_DAY • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	PERIOD_RESULT_STATS_DAY • lastUpdated column is removed. • tenantId column is added.
CCP_PEAKS_HOUR • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	PERIOD_RESULT_STATS_HOUR • lastUpdated column is removed. • tenantId column is added.
CCP_PEAKS_MONTH • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	PERIOD_RESULT_STATS_MONTH • lastUpdated column is removed. • tenantId column is added.
CCP_PEAKS_WEEK • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	PERIOD_RESULT_STATS_WEEK • lastUpdated column is removed. • tenantId column is added.
MCP_ARRIVALS_30MIN • TIME_WRITTEN column is removed.	RM_ARRIVALS_30MIN • TIME_WRITTEN column is removed. • tenantId column is added.
MCP_ARRIVALS_5MIN • TIME_WRITTEN column is removed.	RM_ARRIVALS_5MIN • TIME_WRITTEN column is removed. • tenantId column is added.
MCP_ARRIVALS_DAY • TIME_WRITTEN column is removed.	RM_ARRIVALS_DAY • TIME_WRITTEN column is removed. • tenantId column is added.
MCP_ARRIVALS_HOUR • TIME_WRITTEN column is removed.	RM_ARRIVALS_HOUR • TIME_WRITTEN column is removed. • tenantId column is added.
MCP_ARRIVALS_MONTH • TIME_WRITTEN column is removed.	RM_ARRIVALS_MONTH • TIME_WRITTEN column is removed. • tenantId column is added.
Tables Changed (continued):	
MCP_ARRIVALS_WEEK • TIME_WRITTEN column is removed.	RM_ARRIVALS_WEEK • TIME_WRITTEN column is removed. • tenantId column is added.

Table 275: Database Changes in GVP 8.1.2 Enterprise Edition Schema (Continued)

Enterprise Edition Changes, Additions, Deletions	
MCP_PEAKS_30MIN • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	RM_PEAKS_30MIN • TIME_WRITTEN column is removed. • tenantId column is added. • PEAK_TIME column is added.
MCP_PEAKS_5MIN • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	RM_PEAKS_5MIN • TIME_WRITTEN column is removed. • tenantId column is added. • PEAK_TIME column is added.
MCP_PEAKS_DAY • TIME_WRITTEN column is removed. • PEAK_TIME column is added.	RM_PEAKS_DAY • TIME_WRITTEN column is removed. • tenantId column is added. • PEAK_TIME column is added.
MCP_PEAKS_HOUR • TIME_WRITTEN column is removed. • PEAK_TIME column is removed.	RM_PEAKS_HOUR • TIME_WRITTEN column is removed. • tenantId column is added. • PEAK_TIME column is added.
MCP_PEAKS_MONTH • TIME_WRITTEN column is removed. • PEAK_TIME column is removed.	RM_PEAKS_MONTH • TIME_WRITTEN column is removed. • tenantId column is added. • PEAK_TIME column is added.
MCP_PEAKS_WEEK • TIME_WRITTEN column is removed. • PEAK_TIME column is removed.	RM_PEAKS_WEEK • TIME_WRITTEN column is removed. • tenantId column is added. • PEAK_TIME column is added.

For information about upgrading the Reporting Server database, see "Migrating the Microsoft SQL Server Database" on page 1587 or "Migrating the Oracle Database" on page 1589.

Changes in GVP 8.1.1

The changes in GVP 8.1.1 are described in the following sections:

- "Component Changes" on page 1532
- "Configuration Option Changes" on page 1536

- "Reporting Server Database Changes" on page 1541

For more information about all the new features and functions in release 8.1.1, see the *Genesys Voice Platform 8.1 Deployment Guide*. For more detailed information about configuring GVP to implement the features and functions, see the *Genesys Voice Platform 8.1 User's Guide* and the *Voice Platform Solution 8.1 Integration Guide*.

Component Changes

Table 276 shows the component changes in GVP from release 8.1 to 8.1.1.

Table 276: Component Changes in GVP 8.1.1

Current Component Name	Type of Change	Details
Resource Manager, Media Control Platform, Call Control Platform, Fetching Module and Squid, and Reporting Server	New features	GVP now supports outbound calling campaign execution using the Supplementary Services Gateway.
	Enhanced functionality	When installed on Windows, GVP components are now installed as Services.and can be configured to startup automatically.
Media Control Platform	New features	The Media Control Platform now provides: • Call Progress Analysis (CPA) with three states of progress detection for outbound calling, with an Media Server Markup Language (MSML) `record` attribute that determines whether the media received during CPA is recorded. • A new MSML interface for control of media server functions to support outbound calling. VoiceXML dialogs that are invoked using MSML are processed by the NGI. • Support for extracting Session Description Protocol (SDP) content from an incoming SIP message with the content-type, `multipart/mixed` (as defined in RFC 2046). • Support for the `P-Asserted-Identity` and `P-Called-Party-ID` headers in the initial SIP `INVITE` message as defined in RFC 3455.

Table 276: Component Changes in GVP 8.1.1 (Continued)

Current Component Name	Type of Change	Details
Media Control Platform (continued)	New features (continued)	The GVPi and the NGI now support AT&T transfer connect (inband only).
	Enhancements to application modules	The NGI has three new security enhancements: • A configurable size limit can be imposed on documents, which prevents rogue applications from using excess memory with large documents. • A configurable size limit can be imposed on the temp files folder, which prevents this folder from becoming too large. • A configurable depth limit can be imposed the subdialog stack on a per-application, per-tenant basis.
		• The NGI now supports only a relative path for the Full Call Recording feature. The path, specified by `<local-directory-name>` is treated as a path relative to the full call recording root path. • GVPi has been enhanced to support: ◆ Sending and receiving SIP `INFO` messages—Messages are received asynchronously and are accessible by the VoiceXML applications by using the `session.genesys.sip` object. ◆ ASR session release—Includes explicit and implicit freeing of Media Resource Control Protocol (MRCP) resources if they are not in use. ◆ The legacy 7.x `GarbageCollector` Dynamic Link Library (DLL)—Cleans up call-generated files in the `temp`, `logs` and `IIS log` folders. A Scheduler monitoring thread provides well-defined clean-up tasks at preconfigured intervals. ◆ External DTMF grammars—For <grammar> elements that refer to external grammar files. (The GVPi is available only for Windows.) For information about migrating legacy applications to use the GVPi, see the *Genesys Voice Platform 8.1 Application Migration Guide*.

Table 276: Component Changes in GVP 8.1.1 (Continued)

Current Component Name	Type of Change	Details
Supplementary Service Gateway	New component	The new Supplementary Services Gateway component manages the initiation of outbound calls by allowing applications to make service requests to the Media Control Platform through the Resource Manager. It accepts batch requests for outbound session creation, and executes those requests depending on application-specific limits. The Supplementary Services Gateway also sends result notifications for success or failure of requests (including batched requests).
Resource Manager	New features	Support for the new outbound calling feature, such as: • The Resource Manager now acts as a *notifier*, accepting SIP `SUBSCRIBE` requests from SIP Server. The Resource Manager can maintain multiple independent subscriptions from the same or different SIP devices. • The Resource Manager now manages call information policies for outbound calls.
		• The Resource Manager accepts campaign, tenant, and IVR Profile information from SIP Server for outbound requests. • A new `msml` service type has been added to support media dialog through the Media Server module of the Media Control Platform.
	Functionality enhanced or modified	The policy management feature has been enhanced—The Resource Manager provides a list of disabled transcoders and a list of disabled codecs and passes them on to the Media Server module of the Media Control Platform.
Reporting Server	New reporting feature	The report manifest now contains the Reporting Server time zone information. The time zone and daylight-saving-time information are included in the manifest separately.

Table 276: Component Changes in GVP 8.1.1 (Continued)

Current Component Name	Type of Change	Details
Reporting Server (continued)	New and enhanced reporting metrics	• Enhanced reporting now includes: ◆ 30-minute summaries that are maintained for one week by default. ◆ An aggregate of the number of calls for Operational Reporting and VAR summaries. ◆ Aggregate call peaks for the number of failed calls, and the percentage of successful calls. • Additional data gathered from the Supplementary Services Gateways: ◆ Reporting metrics include, current queue length, number of failed calls, and percentage of successful calls from the Supplementary Services Gateways.
Genesys Administrator (GVP-specific functions on the `Provisioning` tab)	Functionality enhanced or modified	• The IVR Profile Wizard has a new page on which you can configure IVR profiles to accept or reject outbound calls or transfers and configure dialing rules for them. Up to 100 rules can be added and recorded for outbound calls. • The Resource Group Wizard `Resource Assignment` page now enables you to configure both SIP and SIPS ports, and to use a drop-down list to configure `Redundancy` as either `Active` or `Passive`.
	Enhanced usability feature	The IVR Profile Wizard usability feature has a new button at the end of each URL input field that enables you to view the URL that has been entered and opens it in a web browser.
Genesys Administrator (GVP-specific functions on the `Monitoring` tab)	New features	The IVR Profile Utilization reports in the Dashboard now include columns for VAR and Supplementary Services Gateway data.
	Functionality enhanced or modified	Enhanced reporting now includes 30-minute summaries that are maintained for one week by default.
		• The Real-time Reports Active Call List now has additional filters and relative time data is available for active calls. • The VAR call browser is now merged with the Historical call browser.

Configuration Option Changes

The following tables describe the changes to the configuration options, or parameters, for specific components of GVP 8.1.1:

- Resource Manager and IVR Profiles—Table 277 on page 1536
- Media Control Platform—Table 278 on page 1538
- Call Control Platform—Table 279 on page 1540
- Reporting Server—Table 280 on page 1541

Table 277 describes Resource Manager and IVR Profile changes.

Table 277: Resource Manager Configuration Changes in GVP 8.1.1

Option/Section Name	Type of Change	Details
`subscription` section	New section added	Options that enable Resource Manager to act as a *notifier*. Resource Manager accepts `SUBSCRIPTION` requests from SIP Server and, based on the event package, periodically sends `NOTIFY` messages to SIP Server. • `sip.localhostname` • `subscription-duration` • `notify-interval` • `sip.localport` • `sip.localsecureport` • `sip.localuser` • `sip.transport.<n>`, where `<n>` is an integer (1, 2, or 3)
`rm` section	New options added	`default-resource-port-capacity`—Indicates the default port capacity for the physical resources managed by the Resource Manager. The default value, `500`, is used when the physical resources port capacity is not defined.
`<Resource Group>` section	New option added	`redundancy-type`—Specifies the type of redundancy (active or passive) when physical resources are added to Resource Groups (by using the Resource Groups Wizard in Genesys Administrator). When the Resource Manager routes requests, it can now determine if the resource is active or passive based on the configuration. This enhanced functionality is available when the Resource Manager is installed on Windows or Linux.

Table 277: Resource Manager Configuration Changes in GVP 8.1.1 (Continued)

Option/Section Name	Type of Change	Details
IVR Profile		
gvp.policy section	New options added	• disable-video • disable-g729 • disable-amr • disable-amrwb • Option for MSML service when invoked in the context of an application: ◆ msml-capability-requirement
gvp.policy section (continued)	New options added	• Options for burst policies that are equivalent to other usage limit parameters: ◆ msml-level2-bust-limit ◆ msml-level3-bust-limit • Option to limit the number of sub-dialogs in a voiceXML call ◆ max-subdialog-depth • Options for MSML service that are equivalent to the management policy parameters for the other service types: ◆ msml-allowed ◆ msml-forbidden-respcode ◆ msml-usage-limit ◆ msml-usage-limit-per-session ◆ msml-usage-limit-exceeded-respcode ◆ msml-forbidden-set-alarm ◆ msml-usage-limit-exceeded-set-alarm
gvp.policy.speech-resource section	New options added	Options to configure default ASR and TTS engines and the default language for ASR/TTS engines: ◆ asr.defaultengine ◆ tts.defaultengine ◆ defaultlanguage
gvp.service-parameter section	New options added	• voicexml.gvpi.$transferscript-url$ • voicexml.gvpi.$tntenable$: • voicexml.gvpi.$tntscript$ • voicexml.gvpi.$tntreclaimcode$ • voicexml.gvpi.$rexfertimeout$

Table 278 describes Media Control Platform changes.

Table 278: Media Control Platform Configuration Changes in GVP 8.1.1

Option/Section Name	Type of Change	Details
`asr` section	New option added	The single parameter, `defaultengine`, is used to configure an ASR engine as the default engine.
`ems` section	Options removed	• `dc.log_sinks` • `dc.log_dll.MFSINK` • `dc.logconfig.MFSINK` • `dc.logconfig.TRAPSINK` • `dc.log_queue_limit` • `dc.log_write_buffer_size` • `dc.metricsconfig.MFSINK`
`mpc` section	New options added	• `rtp.h264deframingbuffersize` • `rtp.h264allowrfc3984stapa` • `rtp.recvaudiobuffersize` • `rtp.recvvideobuffersize` • `rtp.sendmode` • `widebandconferences` • `amrwb.preferred_mode` • `amrwb.fmtp` • `amrwb.enable_dtx` • `amrwbpayload` • `disabledcodecs` • `disabledtranscoders` • `cpa`—Many new options added to support call progress analysis. In the Media Server module of the Media Control Platform, CPA detects tones, human voice, and answering machine beeps. For a complete list of options for this new feature, see the *Genesys Voice Platform 8.1 User's Guide*.
	Default value changed	• `codec`—New default value: `pcmu pcma g726 gsm h263 h263-1998 h264 telephone-event` • `mediadispatch_bucketamount`—New default value: `250` • `mediadispatch_bucketwidth`—New default value: `4`

Table 278: Media Control Platform Configuration Changes in GVP 8.1.1 (Continued)

Option/Section Name	Type of Change	Details
msml section	New section added	Parameters in this section support the Media Server Markup Language (MSML) application module on the Media Control Platform and enable it to act as an MSML Server • beep.filename • beep.join.timelimit • cpd.beeptimeout • cpd.postconnecttimeout • cpd.preconnecttimeout • cpd.record.basepath • cpd record.fileext • info.contenttypes • play.basepath
Netann section	New options added	• annc.file.codecs • annc.http.codecs
	Default value changed	record.basepath—New default value: $InstallationRoot$/record
sessmgr section	New option added.	MSML.MSML—New parameter to support MSML sessions.
	Default value changed	• appmodules_linux—New default value: Remdial:RemoteDial Netann:Netann VXML3:VXML-NG • appmodules_win—New default value: Remdial:RemoteDial Netann:Netann VXML3:VXML-NG LegacyGVP:VXML-LGVP • modules_linux—New default value: Remdial Netann VXML3 MSML • modules_win—New default value: Remdial Netann VXML3 LegacyGVP MSML
sip section	New options added	• sdpansinprov • timer.provretransmit • passertedidentity • pcalledpartyid

Table 278: Media Control Platform Configuration Changes in GVP 8.1.1 (Continued)

Option/Section Name	Type of Change	Details
vrm section	New options added	• client.mrcpv1.sendtrapformrcp* and client.mrcpv2.sendtrapformrcp* ◆ recogcompletioncause ◆ speakcompletioncause ◆ responsecode ◆ requestfailure ◆ responsefailure • client.mrcpv1.sendtrapforrtsp* and client.mrcpv2.sendtrapforsip* ◆ responsecode
vxmli section	New options added	• max_size.vxml_page • max_size.script_file • max_size.xml_data • max_subdialog_depth • savetmpfiles.max_bytes
	Option removed	asr.defaultengine—Option removed and replaced by a new option. See the asr section in this table.
	Default value changed	http.user_agent—New default value: GVPi/$VERSION$

Table 279 describes Call Control Platform changes.

Table 279: Call Control Platform Configuration Changes in GVP 8.1.1

Option/Section Name	Type of Change	Details
ems section	Options removed	• dc.log_sinks • dc.log_dll.MFSINK • dc.logconfig.MFSINK • dc.log_queue_limit • dc.log_write_buffer_size

Table 280 describes Reporting Server changes.

Table 280: Reporting Server Configuration Changes in GVP 8.1.1

Option/Section Name	Type of Change	Details
`dbmp` section	New options added	• `rs.db.retention.var.30min.default` • `rs.db.retention.operations.30min.default`
`reporting` section	New options added	• `rs.query.limit.30min`

Reporting Server Database Changes

The Reporting Server database schema version is always the same as the release number of the Reporting Server installation package (IP).

Table 281 summarizes the major changes to the Reporting Server database schema from GVP 8.1 to GVP 8.1.1.

Table 281: Reporting Server Database Schema Changes in GVP 8.1.1

Type of Change	Details
New tables	• CCP_ARRIVALS_30MINS • CCP_ARRIVALS_5MINS • CCP_ARRIVALS_DAY • CCP_ARRIVALS_HOUR • CCP_ARRIVALS_MONTH • CCP_ARRIVALS_WEEK
	• CCP_PEAKS_30MINS • CCP_PEAKS_5MINS • CCP_PEAKS_DAY • CCP_PEAKS_HOUR • CCP_PEAKS_MONTH • CCP_PEAKS_WEEK
	• MCP_ARRIVALS_30MINS • MCP_ARRIVALS_5MINS • MCP_ARRIVALS_DAY • MCP_ARRIVALS_HOUR • MCP_ARRIVALS_MONTH • MCP_ARRIVALS_WEEK

Table 281: Reporting Server Database Schema Changes in GVP 8.1.1 (Continued)

Type of Change	Details
New tables (continued)	• MCP_PEAKS_30MINS • MCP_PEAKS_5MINS • MCP_PEAKS_DAY • MCP_PEAKS_HOUR • MCP_PEAKS_MONTH • MCP_PEAKS_WEEK
	• PERIOD_IVR_ACTION_STATS_30MINS • PERIOD_IVR_ACTION_STATS_5MINS • PERIOD_IVR_ACTION_STATS_DAY • PERIOD_IVR_ACTION_STATS_HOUR • PERIOD_IVR_ACTION_STATS_MONTH • PERIOD_IVR_ACTION_STATS_WEEK
	• PERIOD_RESULT_STATS_30MINS • PERIOD_RESULT_STATS_5MINS • PERIOD_RESULT_STATS_DAY • PERIOD_RESULT_STATS_HOUR • PERIOD_RESULT_STATS_MONTH • PERIOD_RESULT_STATS_WEEK
	• RM_ARRIVALS_30MINS • RM_ARRIVALS_5MINS • RM_ARRIVALS_DAY • RM_ARRIVALS_HOUR • RM_ARRIVALS_MONTH • RM_ARRIVALS_WEEK
	• RM_PEAKS_30MINS • RM_PEAKS_5MINS • RM_PEAKS_DAY • RM_PEAKS_HOUR • RM_PEAKS_MONTH • RM_PEAKS_WEEK

Table 281: Reporting Server Database Schema Changes in GVP 8.1.1 (Continued)

Type of Change	Details
Tables modified	The CCP_CDR, MCP_CDR, and RM_CDR tables each have three new columns: • GVP_GUID_HASH • GENESYS_UUID_HASH • CSID
	The EVENT_LOGS and VAR_CDRS tables each have a new CSID column.
	The TIMECOMPONENTS table has a new HALF_HOUR_COL column.
	The LASTSUMMARIZED table has a new LASTSUMMARIZEDID column.
	The CUSTOM_VARS table has a new VARS column and the following three columns have been removed: • VAR_ID • NAME • VALUE

For information about upgrading the Reporting Server database, see "Migrating the Microsoft SQL Server Database" on page 1587 or "Migrating the Oracle Database" on page 1589.

Changes in GVP 8.1

The changes in GVP 8.1 are described in the following sections:

- Component Changes on page 1544
- Configuration Option Changes on page 1549
- Reporting Server Database Changes on page 1557

For more information about all the new features and functions in release 8.1, see the *Genesys Voice Platform 8.1 Deployment Guide*. For more detailed information about configuring GVP to implement the features and functions, see the *Genesys Voice Platform 8.1 User's Guide* and the *Voice Platform Solution 8.1 Integration Guide*.

Component Changes

Table 282 shows the component changes in GVP from release 8.0 to 8.1.

Table 282: Component Changes in GVP 8.1

Current Component Name	Type of Change	Details
Resource Manager, Media Control Platform, Call Control Platform, Fetching Module and Squid, Reporting Server, and Management Information Bases (MIBs)	Operating system support added	Support for Linux: • Red Hat Enterprise Linux Advanced Server 4.0, 32-bit version
Media Control Platform	New application modules	The Legacy GVP Interpreter (GVPi), a new Voice Extensible Markup Language (VoiceXML) interpreter on the Media Control Platform, enables legacy GVP 7.6 VoiceXML and Telera XML (TXML) applications to be used with GVP 8.1. New `PageCollector` and `PopGateway` modules on the Media Control Platform control the fetching and processing behavior of the GVPi, respectively. The GVPi is available only for Windows. For information about migrating legacy applications to use the GVPi, see the *Genesys Voice Platform 8.1 Application Migration Guide*.
	Third-party speech engine support added	• IBM WebSphere Voice Server (WVS) 5.1.3.3 or later (Automatic Speech Recognition [ASR] or Text-to-Speech [TTS]) • Telisma Telispeech 2.0 SP1 (ASR only)
	New features	The Media Control Platform now provides: • Support for the NETANN prompt announcement service (RFC 4240). The service is initiated when the incoming Session Initiation Protocol (SIP) `INVITE` message contains the `play` parameter in the SIP `Request-URI`. • Failover handling for SIP `REFERJOIN` (`REFER` with `Replaces`) transfer. • Call Progress Analysis (CPA) handling through SIP `INFO` messages.

Table 282: Component Changes in GVP 8.1 (Continued)

Current Component Name	Type of Change	Details
Media Control Platform (continued)	New features (continued)	• Inband DTMF detection. • Support for requesting Video I-Frames, which enables video recording to start. • Support for the use of vendor-specific TTS parameters. • Simultaneous support of the Next-Generation Interpreter (NGI) and the new GVPi. • (NGI only) Manual ASR session release.
	Functionality changed	For the NGI, the Maintainer e-mail function is now disabled by default. To implement the Maintainer function, you must explicitly enable it in configuration (the `maintainer.enabled` configuration option in the `vxmli` section).
	Behavior changed	For the NGI, if a particular input mode (`voice` or `DTMF`) is not specified, then input of that type of input mode is ignored, and the platform generates a `nomatch` event. Previously, if the `inputmodes` property was specified as `voice,` and DTMF input was received, the Media Control Platform generated a `noinput` event.
	Directories changed	• The `<MCP installation path>/audio` directory contains only the following subdirectories: ◆ `dtmf`—Stores standard DTMF tones. ◆ `default_audio`—Stores standard information or error prompts that are used by the Media Control Platform. All other prompts, including those used by the sample VoiceXML applications, have been removed. The `value, prompts,` and `effects` subdirectories are no longer created. • A `prompts` subdirectory in the `<MCP installation path>/samples` directory contains the audio files that are used by the sample VoiceXML applications that are stored in the `samples` directory.
MRCP Clients	New `Application Templates`	For convenience, separate `Application Templates` for Nuance, IBM, and Telisma MRCP clients provide suitable, vendor-specific default settings for MRCPv1 and MRCPv2 ASR and TTS.

Table 282: Component Changes in GVP 8.1 (Continued)

Current Component Name	Type of Change	Details
CTI Connector (CTIC)	New component	The CTIC integrates GVP with IVR Server to support full computer-telephony integration (CTI) functionality for legacy GVPi applications and NGI applications with CTI extensions, and for certain switch configurations for which the architecture requires CTI through IVR Server. The CTIC provides connectivity to the larger Genesys suite of products through the IVR Server XML interface. The CTIC is available only for Windows.
Resource Manager	Functionality changed (Windows)	The implementation of High Availability (HA) for the Resource Manager has changed. As in GVP 8.0, the Resource Manager uses cluster virtual IP technology, so that highly available Resource Manager nodes appear as a single entity to the other GVP components. In GVP 8.1, the nodes share session data for hot-standby HA. The Resource Manager nodes establish primary and secondary status between themselves, and the deployment no longer includes a Cluster Manager. GVP 8.1 also supports HA for Linux.
	Functionality enhanced or modified	Existing functionality has been modified, or else it has been extended to support additional features: • There are now four types of resource groups: ◦ `Media Control Platform` ◦ `Call Control Platform` ◦ `Gateway` ◦ `CTI Connector` • A new service type, `Announcement`, has been added to the types of services that an IVR Profile can provide. • IVR Profile policies can now be configured for two levels of burst thresholds to temporarily exceed the configured usage limits. • The Resource Manager now supports call information policies, for rule-based determination of whether to accept, reject, or play scripts for incoming calls, based on the ANI, DNIS, or User-Agent information of the call.

Table 282: Component Changes in GVP 8.1 (Continued)

Current Component Name	Type of Change	Details
Call Control Platform	Features enhanced	• Operational Reporting (OR) is now supported. • Two new device profiles have been added: ◆ eyeBeam ◆ Kapanga
Reporting Server	New feature	The Reporting Server now supports HA through a primary/backup configuration. There are two models for clustering the ActiveMQ Java Message Service (JMS) queues, to provide HA for Reporting Clients: • Shared Storage Solution (Windows only)—Both Reporting Server instances are connected to a shared storage solution. • Independent Solution (Windows and Linux)—Both Reporting Server instances use independent message stores, but only the primary server activates its message store.
	New or enhanced Reporting features	Selected enhanced Reporting features include: • CTI Summary reporting • Port utilization dashboard, based on available Call Detail Record (CDR) information: ◆ Component Utilization ◆ IVR Profile Utilization • Call Arrival and Call Peak reporting for the Call Control Platform • Burst reporting: ◆ Profile burst limits displayed in the Voice Platform Dashboard ◆ Profile/Tenant limits and usage displayed in real-time and historical CDR reports (`Active Call List` and `Historical Call Browser`) • Enhanced CDR reporting: ◆ Call State information in real-time CDR reports ◆ Call Disposition information in historical CDR reports ◆ Queue Wait Time information in cases where the call was abandoned or transferred to an agent

Table 282: Component Changes in GVP 8.1 (Continued)

Current Component Name	Type of Change	Details
Reporting Server (continued)	Report changed	For data compatibility reasons, the GVP 8.1 IVR Action Usage summary report does not display a breakdown of IVR results by reason for data that was generated by the GVP 8.0 deployment. However, the report does display the result reason breakdown for new data that is generated by GVP 8.1 IVR actions.
Genesys Administrator (GVP-specific functions on the `Provisioning` tab)	Functionality modified/enhanced	New or modified wizards: • Installation Wizard—Enables you to install single or multiple instances of GVP components with a basic configuration. • Create Application Wizard—Enables you to import the `Application Templates` and metadata, and then create and configure component `Applications`. • IVR Profile Wizard—Enables you to provision voice or call control applications for GVP. • Resource Group Wizard—Enables you to configure the resource groups from which the Resource Manager will select the resource to perform a particular service for a particular usage instance of an IVR Profile.
	Enhanced usability feature	Links in the new `Monitoring` panel on the `Provisioning > Voice Platform > IVR Profiles` page enable you to link directly to reports about the selected IVR Profile(s) on the `Monitoring` tab.
Genesys Administrator (GVP-specific functions on the `Monitoring` tab)	New feature	The Voice Platform Dashboard is new display item in the `Voice Platform` view. The Voice Platform Dashboard summarizes real-time and historical information about IVR and platform usage to provide a snapshot of current utilization of the IVR Profiles and the call-processing components (Resource Manager, Media Control Platform, and Call Control Platform) in the GVP deployment. Flexible user configuration enables you to customize the display.

Table 282: Component Changes in GVP 8.1 (Continued)

Current Component Name	Type of Change	Details
Genesys Administrator (GVP-specific functions on the `Monitoring` tab) (continued)	Enhanced usability features	• Filter enhancements for viewing reports • Call Summary and Call Peaks reports broken into separate reports, by IVR Profile and Component, respectively (See also in this table, the new and enhanced Reporting features for the Reporting Server.)

Configuration Option Changes

The following tables describe the changes to the configuration options, or parameters, for specific components of GVP 8.1

- Resource Manager and IVR Profiles—Table 283 on page 1549
- Media Control Platform—Table 284 on page 1552
- MRCP Clients—Table 285 on page 1554
- Call Control Platform—Table 286 on page 1554
- Reporting Server—Table 287 on page 1555
- Fetching Module—Table 288 on page 1557

For descriptions and default values of all GVP 8.1 configuration options, see the *Genesys Voice Platform 8.1 Configuration Options Reference*.

Table 283 describes Resource Manager and IVR Profile changes.

Table 283: Resource Manager Configuration Option Changes in GVP 8.1

Option/Section Name	Type of Change	Details
`cluster` section	New section	Parameters determine HA behavior. Some parameters are the equivalents of former Cluster Manager options. The parameters that used to be configured by the `cluster_ip` and `cluster_hotstandby` options in the `rm` section are now configured by equivalent options in the `cluster` section.
`cmserviceagent` section	Section removed	
`rm` section	Options removed	
`rm` section	New option added	`sip-header-for-cti-dnis`—For requests that come from CTIC, specifies the header from which the Resource Manager will retrieve the DNIS, to identify which IVR Profile to use.

Table 283: Resource Manager Configuration Option Changes in GVP 8.1 (Continued)

Option/Section Name	Type of Change	Details
ems section	New options added	The following parameters provide additional options for controlling OR and CDR reporting behavior: • rc.ors.local_queue_max • rc.cdr.local_queue_max • rc.cdr.queue_size_limit • rc.ors.queue_size_limit • rc.cdr.max_reconnect_interval • rc.ors.max_reconnect_interval • rc.cdr.max_batch_time • rc.ors.max_batch_time
	Options removed	• rc.batch_size • trace_flag
<Resource Group> section	Options and option values changed	For information about the valid options for GVP 8.1, see the *Genesys Voice Platform 8.1 User's Guide*.
rc.ors.batch_size option in the ems section	Default value changed	The default value is now 500 (it used to be 1). This option specifies the number of OR messages that will be queued by the reporting client before they are sent to the Reporting Server. This parameter was formerly hidden.
log section	Default values changed	The default values of some log parameters have changed, and additional parameters are now specified by default. For information about the default log settings in GVP 8.1, see the section in the *Genesys Voice Platform 8.1 User's Guide* about configuring logging.
snmp section	New section	The single parameter, timeout, specifies the maximum amount of time that SNMP waits for a new task. The default is 100 milliseconds.
IVR Profile		
gvp.general section	New option value, and new option added	• service-type—A new option value, announcement, has been added, for IVR Profiles that provide NETANN announcement services. • toll-free-number—New option identifies the toll-free number associated with this IVR Profile.
gvp.service-prerequisite section	New option added	announcement-url—The URL to the announcement audio file.

Table 283: Resource Manager Configuration Option Changes in GVP 8.1 (Continued)

Option/Section Name	Type of Change	Details
gvp.policy section	New options added	• Parameters for announcement service that are equivalent to the management policy parameters for the other service types: ◆ announcement-allowed ◆ announcement-forbidden-respcode ◆ announcement-usage-limit ◆ announcement-usage-limit-per-session ◆ announcement-usage-limit-exceeded-respcode ◆ announcement-forbidden-set-alarm ◆ announcement-usage-limit-exceeded-set-alarm • Parameters for burst policies that are equivalent to other usage limit parameters: ◆ burst-allowed ◆ burst-set-alarm ◆ level2-burst-limit ◆ level3-burst-limit ◆ <type>-level2-burst-limit ◆ <type>-level3-burst-limit where <type> is inbound, outbound, voicexml, ccxml, conference, or announcement
	Options removed	• external-sip-allowed • external-sip-forbidden-respcode • external-sip-forbidden-set-alarm • external-sip-usage-limit-exceeded-set-alarm
gvp.policy.call-info section	New section	Parameters to specify the call information policies. Each rule-<n> parameter specifies a rule to be matched against the DNIS, ANI, or User-Agent, as obtained from the SIP message, to determine whether to accept, reject, or play a script for incoming calls.
gvp.service-parameters section	New options added	• voicexml.gvp.appmodule • voicexml.gvpi.*—Various parameters to migrate legacy VoiceXML applications for the GVPi • cti.defaultagent • cti.transferoncti

Table 284 describes Media Control Platform changes.

Table 284: MCP Configuration Option Changes in GVP 8.1

Option/Section Name	Type of Change	Details
`cpa` section	New section	Parameters define behavior for CPA detection.
`Netann` section	New section	Parameters determine default behavior for `NETANN` prompt announcement service.
`PageCollector` section	New section	Parameters determine fetching and caching behavior for the GVPi.
`PopGateway1` section	New section	Parameters determine processing behavior for the GVPi.
`delay_for_dtmf` option in the `asr` section	Default value changed	The default delay between the last DTMF input and the start of the next Automatic Speech Recognition (ASR) has been changed from `250` milliseconds to `0`.
`ems` section	New options added	The following parameters provide additional options for controlling OR and CDR reporting behavior: • `rc.local_queue_max` • `rc.cdr.local_queue_max` • `rc.ors.local_queue_max`
	Options removed	• `trace_flag` • `dc.trace_flag`
`mpc` section	New options added	• `dtmf.pauseduration`—The duration, in milliseconds, of a DTMF pause. Default value: `200` • `mediamgr.rec_iframe_delay_threshold`—For video recording with audio, the amount of time before video filling is required, to prevent loss of synchronization when audio is being received ahead of an I-Frame. Default value: `160` • `record.defaultdtmfhandling`—Specifies the recording behavior with regard to DTMF input in a Simple Recording. Default value: `as-is` • `rtp.request_iframe`—Enables or disables the requesting of video intra-frames. Default value: 1 (enabled)
	Default values changed	• `asr.codec`—New default value: `pcmu telephone-event` • `controlthreadlevel`—New default value: `HIGHEST`
	Option removed	`mixer.maxsilencethreshold`

Table 284: MCP Configuration Option Changes in GVP 8.1 (Continued)

Option/Section Name	Type of Change	Details
sessmgr section	New options added	• default_vxml_interpreter • LegacyGVP.VXML-LGVP • mrt.sendsdpininvite
sip section	Option removed	confserver
	New options added	• defaultfrom • referxfertryoutbound • referxferwaitnotifyother
vrm section	Default value changed	client.modules—New default value: MRCPV1 MRCPV2 MRCP_DTMFRECOGNIZER
vxmli section	New options added	• asr.defaultengine • asr.release_on_transfer • maintainer.enabled • messaging.enabled • tts.defaultengine
	Default values changed	• beep.uri—New default value: file://$InstallationRoot$/audio/ulaw/default_audio/endofprompt.vox • builtin_path—New default value: $InstallationRoot$/audio/ulaw/
rc.ors.batch_size option in the ems section	Default value changed	The default value is now 500 (it used to be 1). This option specifies the number of OR messages that will be queued by the reporting client before they are sent to the Reporting Server. This parameter was formerly hidden.
log section	Default values changed	The default values of some log parameters have changed, and additional parameters are now specified by default. For information about the default log settings in GVP 8.1, see the section in the *Genesys Voice Platform 8.1 User's Guide* about configuring logging.
snmp section	New section	The single parameter, timeout, specifies the maximum amount of time that SNMP waits for a new task. The default is 100 milliseconds.

Table 285 describes MRCP Client changes.

Table 285: MRCP Client Configuration Option Changes in GVP 8.1

Option/Section Name	Type of Change	Details
`provision` section	Default values changed	The default values of the following options are now empty: • `vrm.client.resource.address` • `vrm.client.resource.name` • `vrm.client.resource.port` • `vrm.client.resource.uri`

Table 286 describes Call Control Platform changes.

Table 286: CCP Configuration Option Changes in GVP 8.1

Option/Section Name	Type of Change	Details
`ccxmli` section	Default values changed	• `max_num_sessions`—New default value: `6000` • `max_num_documents`—New default value: `6000` • `max_conn_per_session`—New default value: `100` • `max_conf_per_session`—New default value: `100`
`mediacontroller` section	Default values changed	• `sipproxy`—New default value: `127.0.0.1:5060` • `bridge_server`—New default value: `127.0.0.1:5070` • `sip.allowedunknownheaders` (formerly in the `ccpccxml` section)—New default value: `Warning Reason` • `inbound_allowed_media`—New default value: `dynamic`
	Valid value added	`sip.allowedunknownheaders`—The asterisk (*) is a new, wildcard value, which specifies that all unknown headers are allowed. You cannot combine the wildcard value with other valid values.
	Options moved	The `sip.allowedunknownheaders` and `allow_dialog_transfer` options have been moved from the `ccpccxml` section.
`mediactrller` section	Section removed	Parameters have been moved into the `mediacontroller` section.

Table 286: CCP Configuration Option Changes in GVP 8.1 (Continued)

Option/Section Name	Type of Change	Details
ems section	New options added	The following parameters control OR reporting behavior: • rc.ors.local_queue_max • rc.ors.local_queue_path • rc.ors.local_queue_max • rc.ors.msg_broker_uri • ors.reportinginterval
	Options removed	• trace_flag • dc.trace_flag
log section	Default values changed	The default values of some log parameters have changed, and additional parameters are now specified by default. For information about the default log settings in GVP 8.1, see the section in the *Genesys Voice Platform 8.1 User's Guide* about configuring logging.
snmp section	New section	The single parameter, timeout, specifies the maximum amount of time that SNMP waits for a new task. The default is 100 milliseconds.

Table 287 describes Reporting Server changes.

Table 287: Reporting Server Configuration Option Changes in GVP 8.1

Option/Section Name	Type of Change	Details
cdr section	Default value changed	db-maintenance-batch-size—New default value: 5
messaging section	Option replaced	The activemq.broker option has been replaced by the port option, which specifies the listening port for the ActiveMQ JMS broker that receives incoming data from Reporting Clients. The default port is still 61616.
persistence section	Default value changed	hibernate.remote.dialect—New default value: No default value specified.

Table 287: Reporting Server Configuration Option Changes in GVP 8.1 (Continued)

Option/Section Name	Type of Change	Details
`persistence` section (continued)	Options replaced	• The `hibernate.remote.xaDataSourceClassName` option has been replaced by `hibernate.remote.driver`. There is no default value. • The `hibernate.remote.xaDataSourceProperties` option has been replaced by the following options: ◆ hibernate.remote.url ◆ `hibernate.remote.database` ◆ `hibernate.remote.user` ◆ `password` There are no default values.
`reporting` section	New options added	• `hostname` • `port` • `protocol` • `username` • `password`
`https` and `https_key` sections	New sections	Parameters specify the properties of the Reporting Server keystore that is used by HTTPS connectors. Keys and certificates are stored in the keystore.
`log` section	Default values changed	The default values of some `log` parameters have changed, and additional parameters are now specified by default. For information about the default `log` settings in GVP 8.1, see the section in the *Genesys Voice Platform 8.1 User's Guide* about configuring logging.

Table 288 describes Fetching Module changes.

Table 288: Fetching Module Configuration Option Changes in GVP 8.1

Option/Section Name	Type of Change	Details
`ems` section	Option removed	`trace_flag`
`log` section	Default values changed	The default values of some `log` parameters have changed, and additional parameters are now specified by default. For information about the default `log` settings in GVP 8.1, see the section in the *Genesys Voice Platform 8.1 User's Guide* about configuring logging.
`snmp` section	New section	The single parameter, `timeout`, specifies the maximum amount of time that SNMP waits for a new task. The default is 100 milliseconds.

Reporting Server Database Changes

The Reporting Server database schema version is always the same as the release number of the Reporting Server installation package (IP).

Table 289 summarizes the major changes to the Reporting Server database schema from GVP 8.0 to GVP 8.1.

Table 289: Reporting Server Database Schema Changes in GVP 8.1

Type of Change	Details
New tables	• `CCP_ARRIVALS` • `CCP_PEAKS`
Tables modified	The `PERIOD_IVR_ACTION_STATS` table has been modified as follows: • The `totalSuccess`, `totalFailed`, and `totalUnknown` columns have been deleted. • The following new columns have been added: ◦ `result` ◦ `reason` ◦ `count`

Table 289: Reporting Server Database Schema Changes in GVP 8.1 (Continued)

Type of Change	Details
Tables modified (continued)	The following columns have been added to the `RM_CDR` table: • `USAGE_PROFILE` • `BURST_PROFILE` • `USAGE_TENANT` • `BURST_TENANT` • `CALL_DISPOSITION` • `QUEUE_WAIT_TIME` • `CALL_STATE`

Chapter

72 Migration Procedures for GVP 8.x

This chapter provides the migration procedures for Genesys Voice Platform (GVP) 8.x. Refer to other sections of this book for detailed information about migrating Framework and other Genesys solutions.

This chapter contains the following sections:

GVP 8.5 Migration

Read about migration to all versions of GVP 8.5 in "Migrating to GVP 8.5" at the Genesys Documentation website.

GVP 8.1 and 8.0 Migration

This section includes the following procedures:

- Procedures to Migrate to GVP 8.1 on page 1582
- Migrating Without Service Interruption on page 1584
- Migrating the Reporting Server Databases on page 1584

Migrating to GVP 64-Bit Installation Packages

GVP 8.1.5 and above support 64-bit operating systems (Windows and Linux) running 64-bit processes. If you plan to migrate to the 64-bit installation packages (IP) from GVP 8.1.4 or older, you must perform a fresh installation of all IPs. You cannot migrate the 32-bit IPs to 64-bit.

Note: For optimal performance, Genesys recommends that you use 64-bit IPs on 64-bit operating systems.

Preliminary Procedures

As described in "Order of Migration" on page 1428, complete the following preliminary procedures before starting the migration of GVP:

1. Migrate Management Framework, as applicable for your deployment. In particular, you must migrate to:
   - Genesys Administrator 8.1.3 for GVP 8.1.7
   - Genesys Administrator 8.1.3 for GVP 8.1.6
   - Genesys Administrator 8.1.2 for GVP 8.1.5
   - Genesys Administrator 8.1.0 for GVP 8.1.4.
   - Genesys Administrator 8.0.3 for GVP 8.1.3 and GVP 8.1.2.
   - Genesys Administrator 8.0.11 for GVP 8.1.1
   - Genesys Administrator 8.0.1 for GVP 8.1.0.

   If you plan to upgrade Configuration Server, Genesys recommends that you first back up the Configuration Layer to an XML file. To do this:

   a. Open the command console by selecting `Start > Run`, and then entering `cmd`.
   b. Navigate to the Configuration Server directory—for example:
      ```
      cd C:\Progam Files\GCTI\Multitenant Configuration Server
      ```
   c. Execute the following command to export the configuration:
      ```
      confserv.exe -export <file name.xml>
      ```

   If you are installing the MRCP Proxy or Policy Server along with your upgrade, you must upgrade to Configuration Server 8.1.1. For a complete

description of how to upgrade the Configuration Server, see Part 2 "Framework Migration" in this document.

Note: If you are required to rollback to the original configuration after attempting the migration, you can use the `confserv.exe -import <filename.xml> -user <account> -password <password>` command to import `<file name.xml>` back into the Configuration Server directory.

IVR Profile configurations are captured in the exported XML file. The `<file name.xml>` file is created in the same folder as the `confserv.exe` file. This is a useful backup, although it is not necessary to modify the IVR Profiles in any way to migrate GVP 8.1.x or GVP 8.x.

2. Upgrade other prerequisite Genesys components (for example, SIP Server, IVR Server, or Interaction Server), as applicable for your deployment. For the compatible versions of the prerequisite components for all GVP 8.1.x, and 8.1 versions, see "Compatibility Among Components" on page 1435.

Update the contact center configuration if required (for example, Place Groups, Agent Groups, and DNs)

Procedures to Migrate to GVP 8.1.7

Complete the following procedures to migrate from GVP 8.x to GVP 8.1.7:

Note: You can use these procedures to migrate GVP on Linux or Windows.

Upgrade GVP

Back Up the Configuration

1. Back up the configurations of the GVP 8.x component `Application` objects.

Note: You may already have backed up the whole Configuration Layer as part of the Management Framework migration (see Step 1 on page 1560). However, Genesys recommends that you also back up the GVP components individually, to help you reinstate customized configuration options later (see Step 7 on page 1578).

For each GVP `Application` object in your existing GVP 8.x deployment:

a. In Genesys Administrator, go to the `Provisioning > Environment > Applications > <GVP Application> > Options` tab.
b. On the toolbar, click `Export`.
c. In the dialog box, select the export format. The options are to export as a `.cfg` file or as an `.xml` file.

d. In the File Download dialog box, click Save, and then save the configuration file to a convenient location.

2. To ensure that you retain the built-in audio files that your deployment uses for DTMF tones and for prompts, back up the files in the <MCP installation path>/audio directory and subdirectories.

Stop GVP Processes

3. Stop GVP:
   a. In Genesys Administrator, go to Provisioning > Environment > Applications > and select each application.
   b. In the Tasks panel, select Stop application gracefully.
   c. In the confirmation dialog box, click OK.

      All Application processes in the GVP solution are shut down gracefully. *Graceful shutdown* means that no new calls will be accepted, and the system will wait as long as necessary for the last call to finish before it shuts down the processes.
   d. Wait until the status displayed in Genesys Administrator shows that the Applications have been stopped.

   For more information about stopping GVP processes, see the *Genesys Voice Platform 8.1 Deployment Guide* or the online *Framework 8.1 Genesys Administrator Help.*

Uninstall GVP 8.x

4. Uninstall the GVP 8.x components in Genesys Administrator:
   a. On the Provisioning tab, select Environment > Applications.
   b. Double-click the component application you want to uninstall.
   c. When the Configuration tab appears, select Uninstall in the toolbar.
   d. When the Confirm dialog box appears, click Yes.

   The component application is uninstalled, but it is not deleted from the Configuration Database; therefore, it still appears in the Applications list in Genesys Administrator.

   Note: In general, Genesys recommends that you uninstall components in reverse order of dependency or reverse order of installation, although this is not strictly required for GVP. In addition, the servers should be restarted after the components are uninstalled.

Create and Install 8.1.7 Applications

5. In Genesys Administrator, create and install the Applications for the GVP configuration objects: See “Compatibility Among Components” on page 1435 for the list of components in each GVP 8.x release.

   There are four ways to create and install the Applications:

   - Use the Installation Packages Import Wizard to import all the GVP installation packages (IPs) to the Genesys Administrator Repository, and then use the Installation Wizard to install the IPs. You can install the Applications with default settings, and then go back later to reinstate customized configuration options.

- For each component, reuse your existing 8.1.x Applications. The configuration templates can be loaded and applied to the existing Applications, regardless of whether they are new or reused. Modify the server connections in the Connections section of the Configuration tab, and modify the values of configuration options on the Options tab, if required. To determine if the configuration has changed from the default settings, export the options from the template and from the Application. Then, use a comparison tool to generate a list of differences. After the new component has been upgraded, manually apply the changes to the newly created Application. Finally, use the Installation Wizard to install the IP on the GVP host.
- For each component, create a new, 8.1.x Application Template and import the metadata, and then make a copy of the existing 8.0 Application and apply the 8.1.x Application Template to the new copy. Modify the server connections in the Connections section of the Configuration tab, and modify the values of configuration options on the Options tab, if required. Then, use the Installation Wizard to install the IP on the GVP host.
- Use the Create Application Wizard to create the new Applications individually, and import the 8.1.x Application Templates and their metadata at the same time. Modify the server connections in the Connections section of the Configuration tab, and modify the values of configuration options on the Options tab, if required. Then, use the Installation Wizard to install the IP on the GVP host.

For more information about the methods for creating and installing GVP Applications, see the *Genesys Voice Platform 8.1 Deployment Guide*. For the new configuration options that were introduced in GVP 8.1, see "Compatibility Among Components" on page 1435.

Migrate the Resource Groups

6. Migrate and provision your existing GVP 8.1.x resource groups, by using the Logical Resource Group Migration Tool (LRGMT) in Genesys Administrator:

a. From the operating system's Command Line Console (CLC), enter:

lrgmt <username> <password> <application> <MF host> <MF port>, where

- <username> is the username of the Environment (or root) tenant.
- <password> is the password of the Environment (or root) tenant.
- <application> is the name of the Genesys Administrator application, for example, default.
- <MF host> is the host name of the Management Framework Server that is hosting Genesys Administrator.
- <MF port> is the Management Framework Server port number, 2020.

b. Press Enter.

There is no other action required. The LRGMT progress information is displayed within the CLC, as well as error information in a standard error format, which can be redirected to an error or log file. For more information about how legacy Resource Groups are migrated, see "Logical Resource Groups" on page 1432.

c. To create new resource groups, use the Resource Group Wizard in Genesys Administrator. For more information about creating the resource groups, see the *Genesys Voice Platform 8.1 Deployment Guide*.

7. Load the GVP 8.1.7 Management Information Bases (MIBs) into your Simple Network Management Protocol (SNMP) management console.

Verify the Configuration

8. Verify that the GVP 8.1.7 configuration replicates the old, GVP 8.x configuration:

a. For each component application, export the new configuration file as described in sub-steps in Step 1 on page 1578.

b. In the command console, execute the following command to compare the new configuration file to the old one:

- On Windows, enter `fc <old cfg file> <new cfg file>`
- On Linux, enter `diff <old cfg file> <new cfg file>`

c. Based on the result, modify the configuration as required, on the `Options` tab of the applicable `Application` objects.

9. Review the audio files in the `<MCP installation path>/audio` subdirectories. If your deployment uses additional audio files in the `audio` subdirectories in the 8.x installation, manually copy the files from the backup location (see Step 2 on page 1574) into the new `audio` directory. For information about changes to the Media Control Platform since release 8.1.5, see Table 250 on page 1470.

Upgrade the Reporting Server Database

10. Migrate the Reporting Server database. See "Migrating the Reporting Server Databases".

Back Up and Modify the Database

11. After upgrading, you may choose to run a script that corrects a `START_TIME` index issue (ER#317750371–`EVENT_LOGS` & `VAR_CDRS` & `CUSTOM VAR` tables do not have `START_TIME` indices). This action deletes all MCP event logs, Custom Var data and VAR CDRs from your database, and thus you should first back up the data. See "Migrating the Reporting Server Databases".

Start GVP 8.1.7

12. If you did not clear the cookie cache of your browser after you upgraded to Genesys Administrator 8.1.0 (see Step 1 on page 1560), delete cookies now. Otherwise, GVP reports may not work.
13. Start the GVP 8.x components. You can start the components in any order, however, you must start the RDBMS server for the Reporting Server database before you start the Reporting Server itself.

    Note: GVP 8.1.7 components are installed as Windows Services and can be configured to start automatically.

    For more information about starting and stopping GVP, see the *Genesys Voice Platform 8.1 Deployment Guide*.
14. Verify proper operation of GVP 8.1.7 by checking the logs for errors.

    GVP migration is effectively a new installation, therefore, you might encounter issues similar to the usual setup and startup problems for new installations. The most likely areas to check are successful database upgrade and successful importation of the old configuration. For more information about the errors you may encounter, see the *Genesys Voice Platform 8.1 Troubleshooting Guide*.
15. If the upgrade of any component fails, recreate and reinstall it, or roll back to GVP 8.1. For more information, see "Rollback Procedures" on page 1591.

Migrating Multi-tenant Environments to GVP 8.1.7

Although multi-tenancy is not supported in GVP 8.1.1 and earlier 8.x releases, GVP 8.1.6 (and higher) and Genesys Administrator 8.1.1 (and higher) provide tools and wizards to migrate GVP 7.x multi-tenant environments. See "Considerations for Multi-Tenant Migrations" on page 1431.

Procedures to Migrate to GVP 8.1.6

Complete the following procedures to migrate from GVP 8.x to GVP 8.1.6:

Note: You can use these procedures to migrate GVP on Linux or Windows.

Upgrade GVP

Back Up the Configuration

1. Back up the configurations of the GVP 8.x component `Application` objects.

   Note: You may already have backed up the whole Configuration Layer as part of the Management Framework migration (see Step 1 on page 1560). However, Genesys recommends that you also back up the GVP components individually, to help you reinstate customized configuration options later (see Step 7 on page 1578).

   For each GVP `Application` object in your existing GVP 8.x deployment:

   a. In Genesys Administrator, go to the `Provisioning > Environment > Applications > <GVP Application> > Options` tab.
   b. On the toolbar, click `Export`.
   c. In the dialog box, select the export format. The options are to export as a `.cfg` file or as an `.xml` file.
   d. In the `File Download` dialog box, click `Save`, and then save the configuration file to a convenient location.

2. To ensure that you retain the built-in audio files that your deployment uses for DTMF tones and for prompts, back up the files in the `<MCP installation path>/audio` directory and subdirectories.

Stop GVP Processes

3. Stop GVP:

   a. In Genesys Administrator, go to `Provisioning > Environment > Applications >` and select each application.
   b. In the `Tasks` panel, select `Stop application gracefully`.
   c. In the confirmation dialog box, click `OK`.

      All `Application` processes in the GVP solution are shut down gracefully. *Graceful shutdown* means that no new calls will be accepted, and the system will wait as long as necessary for the last call to finish before it shuts down the processes.
   d. Wait until the status displayed in Genesys Administrator shows that the `Applications` have been stopped.

   For more information about stopping GVP processes, see the *Genesys Voice Platform 8.1 Deployment Guide* or the online *Framework 8.1 Genesys Administrator Help.*

Uninstall GVP 8.x

4. Uninstall the GVP 8.x components in Genesys Administrator:

   a. On the `Provisioning` tab, select `Environment > Applications`.
   b. Double-click the component application you want to uninstall.
   c. When the `Configuration` tab appears, select `Uninstall` in the toolbar.
   d. When the `Confirm` dialog box appears, click `Yes`.

The component application is uninstalled, but it is not deleted from the Configuration Database; therefore, it still appears in the Applications list in Genesys Administrator.

Note: In general, Genesys recommends that you uninstall components in reverse order of dependency or reverse order of installation, although this is not strictly required for GVP. In addition, the servers should be restarted after the components are uninstalled.

Create and Install 8.1.6 Applications

5. In Genesys Administrator, create and install the Applications for the GVP configuration objects: See "Compatibility Among Components" on page 1435 for the list of components in each GVP 8.x release.

   There are four ways to create and install the Applications:

   - Use the Installation Packages Import Wizard to import all the GVP installation packages (IPs) to the Genesys Administrator Repository, and then use the Installation Wizard to install the IPs. You can install the Applications with default settings, and then go back later to reinstate customized configuration options.
   - For each component, reuse your existing 8.1.x Applications. The configuration templates can be loaded and applied to the existing Applications, regardless of whether they are new or reused. Modify the server connections in the Connections section of the Configuration tab, and modify the values of configuration options on the Options tab, if required. To determine if the configuration has changed from the default settings, export the options from the template and from the Application. Then, use a comparison tool to generate a list of differences. After the new component has been upgraded, manually apply the changes to the newly created Application. Finally, use the Installation Wizard to install the IP on the GVP host.
   - For each component, create a new, 8.1.x Application Template and import the metadata, and then make a copy of the existing 8.0 Application and apply the 8.1.x Application Template to the new copy. Modify the server connections in the Connections section of the Configuration tab, and modify the values of configuration options on the Options tab, if required. Then, use the Installation Wizard to install the IP on the GVP host.
   - Use the Create Application Wizard to create the new Applications individually, and import the 8.1.x Application Templates and their metadata at the same time. Modify the server connections in the Connections section of the Configuration tab, and modify the values of configuration options on the Options tab, if required. Then, use the Installation Wizard to install the IP on the GVP host.

   For more information about the methods for creating and installing GVP Applications, see the *Genesys Voice Platform 8.1 Deployment Guide*. For

the new configuration options that were introduced in GVP 8.1, see "Compatibility Among Components" on page 1435.

Migrate the Resource Groups

6. Migrate and provision your existing GVP 8.1.x resource groups, by using the Logical Resource Group Migration Tool (LRGMT) in Genesys Administrator:
   a. From the operating system's Command Line Console (CLC), enter:

      `lrgmt <username> <password> <application> <MF host> <MF port>`, where
      - <username> is the username of the `Environment` (or root) tenant.
      - <password> is the password of the `Environment` (or root) tenant.
      - <application> is the name of the Genesys Administrator application, for example, `default`.
      - <MF host> is the host name of the Management Framework Server that is hosting Genesys Administrator.
      - <MF port> is the Management Framework Server port number, `2020`.

   b. Press `Enter`.

      There is no other action required. The LRGMT progress information is displayed within the CLC, as well as error information in a standard error format, which can be redirected to an error or log file. For more information about how legacy Resource Groups are migrated, see "Logical Resource Groups" on page 1432.

   c. To create new resource groups, use the Resource Group Wizard in Genesys Administrator. For more information about creating the resource groups, see the *Genesys Voice Platform 8.1 Deployment Guide*.
7. Load the GVP 8.1.6 Management Information Bases (MIBs) into your Simple Network Management Protocol (SNMP) management console.

Verify the Configuration

8. Verify that the GVP 8.1.6 configuration replicates the old, GVP 8.x configuration:
   a. For each component application, export the new configuration file as described in sub-steps in Step 1 on page 1578.
   b. In the command console, execute the following command to compare the new configuration file to the old one:
      - On Windows, enter `fc <old cfg file> <new cfg file>`
      - On Linux, enter `diff <old cfg file> <new cfg file>`
   c. Based on the result, modify the configuration as required, on the `Options` tab of the applicable `Application` objects.
9. Review the audio files in the `<MCP installation path>/audio` subdirectories. If your deployment uses additional audio files in the `audio` subdirectories in the 8.x installation, manually copy the files from the

backup location (see Step 2 on page 1574) into the new `audio` directory. For information about changes to the Media Control Platform since release 8.1.5, see Table 250 on page 1470.

Upgrade the Reporting Server Database

10. Migrate the Reporting Server database. See "Migrating the Reporting Server Databases".

Start GVP 8.1.6

11. If you did not clear the cookie cache of your browser after you upgraded to Genesys Administrator 8.1.0 (see Step 1 on page 1560), delete cookies now. Otherwise, GVP reports may not work.
12. Start the GVP 8.1.5 components. You can start the components in any order, however, you must start the RDBMS server for the Reporting Server database before you start the Reporting Server.

    Note: GVP 8.1.6 components are installed as Windows Services and can be configured to start automatically.

    For more information about starting and stopping GVP, see the *Genesys Voice Platform 8.1 Deployment Guide*.
13. Verify proper operation of GVP 8.1.6 by checking the logs for errors.

    GVP migration is effectively a new installation, therefore, you might encounter issues similar to the usual setup and startup problems for new installations. The most likely areas to check are successful database upgrade and successful importation of the old configuration. For more information about the errors you may encounter, see the *Genesys Voice Platform 8.1 Troubleshooting Guide*.
14. If the upgrade of any component fails, recreate and reinstall it, or roll back to GVP 8.1. For more information, see "Rollback Procedures" on page 1591.

Migrating Multi-tenant Environments to GVP 8.1.6

Although multi-tenancy is not supported in GVP 8.1.1 and earlier 8.x releases, GVP 8.1.6 (and higher) and Genesys Administrator 8.1.1 (and higher) provide tools and wizards to migrate GVP 7.x multi-tenant environments. See "Considerations for Multi-Tenant Migrations" on page 1431.

Procedures to Migrate to GVP 8.1.5

Complete the following procedures to migrate from GVP 8.x to GVP 8.1.5:

Note: You can use these procedures to migrate GVP on Linux or Windows.

Upgrade GVP

Back Up the Configuration

1. Back up the configurations of the GVP 8.x component `Application` objects.

   Note: You may already have backed up the whole Configuration Layer as part of the Management Framework migration (see Step 1 on page 1560). However, Genesys recommends that you also back up the GVP components individually, to help you reinstate customized configuration options later (see Step 7 on page 1578).

   For each GVP `Application` object in your existing GVP 8.x deployment:

   a. In Genesys Administrator, go to the `Provisioning > Environment > Applications > <GVP Application> > Options` tab.
   b. On the toolbar, click `Export`.
   c. In the dialog box, select the export format. The options are to export as a `.cfg` file or as an `.xml` file.
   d. In the `File Download` dialog box, click `Save`, and then save the configuration file to a convenient location.

2. To ensure that you retain the built-in audio files that your deployment uses for DTMF tones and for prompts, back up the files in the `<MCP installation path>/audio` directory and subdirectories.

Stop GVP Processes

3. Stop GVP:

   a. In Genesys Administrator, go to `Provisioning > Environment > Applications >` and select each application.
   b. In the `Tasks` panel, select `Stop application gracefully`.
   c. In the confirmation dialog box, click `OK`.

      All `Application` processes in the GVP solution are shut down gracefully. *Graceful shutdown* means that no new calls will be accepted, and the system will wait as long as necessary for the last call to finish before it shuts down the processes.
   d. Wait until the status displayed in Genesys Administrator shows that the `Applications` have been stopped.

   For more information about stopping GVP processes, see the *Genesys Voice Platform 8.1 Deployment Guide* or the online *Framework 8.1 Genesys Administrator Help.*

Uninstall GVP 8.x

4. Uninstall the GVP 8.x components in Genesys Administrator:
   a. On the Provisioning tab, select Environment > Applications.
   b. Double-click the component application you want to uninstall.
   c. When the Configuration tab appears, select Uninstall in the toolbar.
   d. When the Confirm dialog box appears, click Yes.

   The component application is uninstalled, but it is not deleted from the Configuration Database; therefore, it still appears in the Applications list in Genesys Administrator.

   Note: In general, Genesys recommends that you uninstall components in reverse order of dependency or reverse order of installation, although this is not strictly required for GVP. In addition, the servers should be restarted after the components are uninstalled.

Create and Install 8.1.5 Applications

5. In Genesys Administrator, create and install the Applications for the GVP configuration objects: See "Compatibility Among Components" on page 1435 for the list of components in each GVP 8.x release.

   There are four ways to create and install the Applications:

   - Use the Installation Packages Import Wizard to import all the GVP installation packages (IPs) to the Genesys Administrator Repository, and then use the Installation Wizard to install the IPs. You can install the Applications with default settings, and then go back later to reinstate customized configuration options.
   - For each component, reuse your existing 8.1.x Applications. The configuration templates can be loaded and applied to the existing Applications, regardless of whether they are new or reused. Modify the server connections in the Connections section of the Configuration tab, and modify the values of configuration options on the Options tab, if required. To determine if the configuration has changed from the default settings, export the options from the template and from the Application. Then, use a comparison tool to generate a list of differences. After the new component has been upgraded, manually apply the changes to the newly created Application. Finally, use the Installation Wizard to install the IP on the GVP host.
   - For each component, create a new, 8.1.x Application Template and import the metadata, and then make a copy of the existing 8.0 Application and apply the 8.1.x Application Template to the new copy. Modify the server connections in the Connections section of the Configuration tab, and modify the values of configuration options on the Options tab, if required. Then, use the Installation Wizard to install the IP on the GVP host.
   - Use the Create Application Wizard to create the new Applications individually, and import the 8.1.x Application Templates and their metadata at the same time. Modify the server connections in the

Connections section of the Configuration tab, and modify the values of configuration options on the Options tab, if required. Then, use the Installation Wizard to install the IP on the GVP host.

For more information about the methods for creating and installing GVP Applications, see the *Genesys Voice Platform 8.1 Deployment Guide*. For the new configuration options that were introduced in GVP 8.1, see "Compatibility Among Components" on page 1435.

Migrate the Resource Groups

6. Migrate and provision your existing GVP 8.1.x resource groups, by using the Logical Resource Group Migration Tool (LRGMT) in Genesys Administrator:
   a. From the operating system's Command Line Console (CLC), enter:

      `lrgmt <username> <password> <application> <MF host> <MF port>`, where
      - <username> is the username of the Environment (or root) tenant.
      - <password> is the password of the Environment (or root) tenant.
      - <application> is the name of the Genesys Administrator application, for example, default.
      - <MF host> is the host name of the Management Framework Server that is hosting Genesys Administrator.
      - <MF port> is the Management Framework Server port number, 2020.

   b. Press Enter.

      There is no other action required. The LRGMT progress information is displayed within the CLC, as well as error information in a standard error format, which can be redirected to an error or log file. For more information about how legacy Resource Groups are migrated, see "Logical Resource Groups" on page 1432.

   c. To create new resource groups, use the Resource Group Wizard in Genesys Administrator. For more information about creating the resource groups, see the *Genesys Voice Platform 8.1 Deployment Guide*.
7. Load the GVP 8.1.5 Management Information Bases (MIBs) into your Simple Network Management Protocol (SNMP) management console.

Verify the Configuration

8. Verify that the GVP 8.1.5 configuration replicates the old, GVP 8.x configuration:
   a. For each component application, export the new configuration file as described in sub-steps in Step 1 on page 1578.
   b. In the command console, execute the following command to compare the new configuration file to the old one:
      - On Windows, enter `fc <old cfg file> <new cfg file>`
      - On Linux, enter `diff <old cfg file> <new cfg file>`
   c. Based on the result, modify the configuration as required, on the Options tab of the applicable Application objects.

9. Review the audio files in the `<MCP installation path>/audio` subdirectories. If your deployment uses additional audio files in the `audio` subdirectories in the 8.x installation, manually copy the files from the backup location (see Step 2 on page 1574) into the new `audio` directory. For information about changes to the Media Control Platform since release 8.1.4, see Table 250 on page 1470.

Upgrade the Reporting Server Database

10. Migrate the Reporting Server database. See "Migrating the Reporting Server Databases".

Start GVP 8.1.5

11. If you did not clear the cookie cache of your browser after you upgraded to Genesys Administrator 8.1.0 (see Step 1 on page 1560), delete cookies now. Otherwise, GVP reports may not work.
12. Start the GVP 8.1.4 components. You can start the components in any order, however, you must start the RDBMS server for the Reporting Server database before you start the Reporting Server.

    Note: GVP 8.1.5 components are installed as Windows Services and can be configured to start automatically.

    For more information about starting and stopping GVP, see the *Genesys Voice Platform 8.1 Deployment Guide*.
13. Verify proper operation of GVP 8.1.5 by checking the logs for errors.

    GVP migration is effectively a new installation, therefore, you might encounter issues similar to the usual setup and startup problems for new installations. The most likely areas to check are successful database upgrade and successful importation of the old configuration. For more information about the errors you may encounter, see the *Genesys Voice Platform 8.1 Troubleshooting Guide*.
14. If the upgrade of any component fails, recreate and reinstall it, or roll back to GVP 8.1.4. For more information, see "Rollback Procedures" on page 1591.

Migrating Multi-tenant Environments to GVP 8.1.5

Although multi-tenancy is not supported in GVP 8.1.1 and earlier 8.x releases, GVP 8.1.5 and Genesys Administrator 8.1.1 provide tools and wizards to migrate GVP 7.x multi-tenant environments. See "Considerations for Multi-Tenant Migrations" on page 1431.

Procedures to Migrate to GVP 8.1.4

Complete the following procedures to migrate from GVP 8.x to GVP 8.1.4:

Note: You can use these procedures to migrate GVP on Linux or Windows.

Upgrade GVP

Back Up the Configuration

1. Back up the configurations of the GVP 8.x component `Application` objects.

   Note: You may already have backed up the whole Configuration Layer as part of the Management Framework migration (see Step 1 on page 1560). However, Genesys recommends that you also back up the GVP components individually, to help you reinstate customized configuration options later (see Step 7 on page 1578).

   For each GVP `Application` object in your existing GVP 8.x deployment:

   a. In Genesys Administrator, go to the `Provisioning > Environment > Applications > <GVP Application> > Options` tab.
   b. On the toolbar, click `Export`.
   c. In the dialog box, select the export format. The options are to export as a `.cfg` file or as an `.xml` file.
   d. In the `File Download` dialog box, click `Save`, and then save the configuration file to a convenient location.

2. To ensure that you retain the built-in audio files that your deployment uses for DTMF tones and for prompts, back up the files in the `<MCP installation path>/audio` directory and subdirectories.

Stop GVP Processes

3. Stop GVP:

   a. In Genesys Administrator, go to `Provisioning > Environment > Applications >` and select each application.
   b. In the `Tasks` panel, select `Stop application gracefully`.
   c. In the confirmation dialog box, click `OK`.

      All `Application` processes in the GVP solution are shut down gracefully. *Graceful shutdown* means that no new calls will be accepted, and the system will wait as long as necessary for the last call to finish before it shuts down the processes.
   d. Wait until the status displayed in Genesys Administrator shows that the `Applications` have been stopped.

   For more information about stopping GVP processes, see the *Genesys Voice Platform 8.1 Deployment Guide* or the online *Framework 8.0 Genesys Administrator Help.*

Uninstall GVP 8.x

4. Uninstall the GVP 8.x components in Genesys Administrator:
   a. On the Provisioning tab, select Environment > Applications.
   b. Double-click the component application you want to uninstall.
   c. When the Configuration tab appears, select Uninstall in the toolbar.
   d. When the Confirm dialog box appears, click Yes.

   The component application is uninstalled, but it is not deleted from the Configuration Database; therefore, it still appears in the Applications list in Genesys Administrator.

   Note: In general, Genesys recommends that you uninstall components in reverse order of dependency or reverse order of installation, although this is not strictly required for GVP. In addition, the servers should be restarted after the components are uninstalled.

Create and Install 8.1.4 Applications

5. In Genesys Administrator, create and install the Applications for the GVP configuration objects: See "Compatibility Among Components" on page 1435 for the list of components in each GVP 8.x release.

   There are four ways to create and install the Applications:

   - Use the Installation Packages Import Wizard to import all the GVP installation packages (IPs) to the Genesys Administrator Repository, and then use the Installation Wizard to install the IPs. You can install the Applications with default settings, and then go back later to reinstate customized configuration options.
   - For each component, reuse your existing 8.1.x Applications. The configuration templates can be loaded and applied to the existing Applications, regardless of whether they are new or reused. Modify the server connections in the Connections section of the Configuration tab, and modify the values of configuration options on the Options tab, if required. To determine if the configuration has changed from the default settings, export the options from the template and from the Application. Then, use a comparison tool to generate a list of differences. After the new component has been upgraded, manually apply the changes to the newly created Application. Finally, use the Installation Wizard to install the IP on the GVP host.
   - For each component, create a new, 8.1.x Application Template and import the metadata, and then make a copy of the existing 8.0 Application and apply the 8.1.x Application Template to the new copy. Modify the server connections in the Connections section of the Configuration tab, and modify the values of configuration options on the Options tab, if required. Then, use the Installation Wizard to install the IP on the GVP host.
   - Use the Create Application Wizard to create the new Applications individually, and import the 8.1.x Application Templates and their metadata at the same time. Modify the server connections in the

Connections section of the Configuration tab, and modify the values of configuration options on the Options tab, if required. Then, use the Installation Wizard to install the IP on the GVP host.

For more information about the methods for creating and installing GVP Applications, see the *Genesys Voice Platform 8.1 Deployment Guide*. For the new configuration options that were introduced in GVP 8.1, see "Compatibility Among Components" on page 1435.

Migrate the Resource Groups

6. Migrate and provision your existing GVP 8.1.x resource groups, by using the Logical Resource Group Migration Tool (LRGMT) in Genesys Administrator:
   a. From the operating system's Command Line Console (CLC), enter:

      `lrgmt <username> <password> <application> <MF host> <MF port>`, where
      - <username> is the username of the Environment (or root) tenant.
      - <password> is the password of the Environment (or root) tenant.
      - <application> is the name of the Genesys Administrator application, for example, default.
      - <MF host> is the host name of the Management Framework Server that is hosting Genesys Administrator.
      - <MF port> is the Management Framework Server port number, 2020.

   b. Press Enter.

      There is no other action required. The LRGMT progress information is displayed within the CLC, as well as error information in a standard error format, which can be redirected to an error or log file. For more information about how legacy Resource Groups are migrated, see "Logical Resource Groups" on page 1432.

   c. To create new resource groups, use the Resource Group Wizard in Genesys Administrator. For more information about creating the resource groups, see the *Genesys Voice Platform 8.1 Deployment Guide*.
7. Load the GVP 8.1.4 Management Information Bases (MIBs) into your Simple Network Management Protocol (SNMP) management console.

Verify the Configuration

8. Verify that the GVP 8.1.4 configuration replicates the old, GVP 8.x configuration:
   a. For each component application, export the new configuration file as described in sub-steps in Step 1 on page 1578.
   b. In the command console, execute the following command to compare the new configuration file to the old one:
      - On Windows, enter `fc <old cfg file> <new cfg file>`
      - On Linux, enter `diff <old cfg file> <new cfg file>`
   c. Based on the result, modify the configuration as required, on the Options tab of the applicable Application objects.

9. Review the audio files in the `<MCP installation path>/audio` subdirectories. If your deployment uses additional audio files in the `audio` subdirectories in the 8.x installation, manually copy the files from the backup location (see Step 2 on page 1574) into the new `audio` directory. For information about changes to the Media Control Platform since release 8.1.3, see Table 269 on page 1511.

Upgrade the Reporting Server Database

10. Migrate the Reporting Server database. See "Migrating the Reporting Server Databases".

Start GVP 8.1.4

11. If you did not clear the cookie cache of your browser after you upgraded to Genesys Administrator 8.1.0 (see Step 1 on page 1560), delete cookies now. Otherwise, GVP reports may not work.
12. Start the GVP 8.1.4 components. You can start the components in any order, however, you must start the RDBMS server for the Reporting Server database before you start the Reporting Server.

    Note: GVP 8.1.4 components are installed as Windows Services and can be configured to start automatically.

    For more information about starting and stopping GVP, see the *Genesys Voice Platform 8.1 Deployment Guide*.
13. Verify proper operation of GVP 8.1.4 by checking the logs for errors.

    GVP migration is effectively a new installation, therefore, you might encounter issues similar to the usual setup and startup problems for new installations. The most likely areas to check are successful database upgrade and successful importation of the old configuration. For more information about the errors you may encounter, see the *Genesys Voice Platform 8.1 Troubleshooting Guide*.
14. If the upgrade of any component fails, recreate and reinstall it, or roll back to GVP 8.1.3. For more information, see "Rollback Procedures" on page 1591.

Migrating Multi-tenant Environments to GVP 8.1.4

Although multi-tenancy is not supported in GVP 8.1.1 and earlier 8.x releases, GVP 8.1.4 and Genesys Administrator 8.1.0 provide tools and wizards to migrate GVP 7.x multi-tenant environments. See "Considerations for Multi-Tenant Migrations" on page 1431.

Procedures to Migrate to GVP 8.1.3 or GVP 8.1.2

Complete the following procedures to migrate from GVP 8.x to GVP 8.1.3 or GVP 8.1.2, and VPS 8.1.2:

Note: You can use these procedures to migrate GVP on Linux or Windows.

Upgrade GVP

Back Up the Configuration

1. Back up the configurations of the GVP 8.x component `Application` objects.

   Note: You may already have backed up the whole Configuration Layer as part of the Management Framework migration (see Step 1 on page 1560). However, Genesys recommends that you also back up the GVP components individually, to help you reinstate customized configuration options later (see Step 7 on page 1578).

   For each GVP `Application` object in your GVP 8.x deployment, follow Steps 1 and 2 in "Procedures to Migrate to GVP 8.1.5" on page 1570.

Stop GVP Processes

2. Stop GVP. See the sub-steps in Step 3 on page 1570.

Uninstall GVP 8.x

3. Uninstall the GVP 8.x components in Genesys Administrator, see the sub-steps in Step 4 on page 1571.

Create and Install 8.1.3 or 8.1.2 Applications

4. In Genesys Administrator, create and install the `Applications` for the GVP configuration objects: See "Compatibility Among Components" on page 1435 for the list of components in each GVP 8.x release.

   See Step 5 on page 1571 for the various ways to create and install `Applications`.

Migrate the Resource Groups

5. Migrate and provision your existing GVP 8.1.x resource groups, by using the Logical Resource Group Migration Tool (LRGMT) in Genesys Administrator. See Step 6 on page 1572 for information about how to invoke the LRGMT.

   To create new resource groups, use the Resource Group Wizard in Genesys Administrator. For more information about creating the resource groups, see the *Genesys Voice Platform 8.1 Deployment Guide*.

6. Load the GVP 8.1.3 or GVP 8.1.2 Management Information Bases (MIBs) into your Simple Network Management Protocol (SNMP) management console.

Verify the Configuration

7. Verify that the GVP 8.1.3 or GVP 8.1.2 configuration replicates the old, GVP 8.x configuration. See the sub steps in Step 8 on page 1572.

8. For GVP 8.1.2, create a shared directory to store the grammars and a virtual directory to access them. On the Media Control Platform host:
   a. Create a shared directory named, `mcp`:
      - `C:\var\www\gvp\mcp` on Windows.
      - `/var/www/gvp/mcp` on Linux.
   b. Using Internet Information Server (IIS) Manager, create a virtual directory named, `mcp` that points to the shared directory.

   Note: Manually creating the shared and virtual directory (Step 8) is no longer required in GVP 8.1.3 and later releases.

9. Review the audio files in the `<MCP installation path>/audio` subdirectories. If your deployment uses additional audio files in the `audio` subdirectories in the 8.x installation, manually copy the files from the backup location (see Step 2 on page 1570) into the new `audio` directory. For information about changes to the Media Control Platform since release 8.1.2 or 8.1.1, see Table 269 on page 1511 or Table 278 on page 1538.

   Note: The GVP 8.1.310.00 and later PSTN Connector generates three digit port numbers. Previously, the generated port numbers were two digits. Therefore, if you plan to deploy the PSTN Connector, Genesys recommends that you migrate to GVP 8.1.310.00 or later, and provision your IVR ports to accommodate this change.

Upgrade the Reporting Server Database

10. Migrate the Reporting Server database. See "Migrating the Reporting Server Databases".

Start GVP 8.1.3 or GVP 8.1.2

11. If you did not clear the cookie cache of your browser after you upgraded to Genesys Administrator 8.0.3 (see Step 1 on page 1560), delete cookies now. Otherwise, GVP reports may not work.
12. Start the GVP 8.1.3 or GVP 8.1.2 components. You can start the components in any order, however, you must start the RDBMS server for the Reporting Server database before you start the Reporting Server.

    Note: GVP 8.1.3 and GVP 8.1.2 components are installed as Windows Services and can be configured to start automatically.

    For more information about starting and stopping GVP, see the *Genesys Voice Platform 8.1 Deployment Guide*.

13. Verify proper operation of GVP 8.1.2 or GVP 8.1.2 by checking the logs for errors.

    GVP migration is effectively a new installation, therefore, you might encounter issues similar to the usual setup and startup problems for new installations. The most likely areas to check are successful database upgrade and successful importation of the old configuration. For more information about the errors you may encounter, see the *Genesys Voice Platform 8.1 Troubleshooting Guide*.

14. If the upgrade of any component fails, recreate and reinstall it, or roll back to GVP 8.1.2 or GVP 8.1.1. For more information, see "Rollback Procedures" on page 1591.

Migrating Multi-tenant Environments to GVP 8.1.3 or GVP 8.1.2

Although multi-tenancy is not supported in GVP 8.1.1 and earlier 8.x releases, GVP 8.1.3 and GVP 8.1.2, and Genesys Administrator 8.0.3 provide tools and wizards to migrate GVP 7.x multi-tenant environments. See "Considerations for Multi-Tenant Migrations" on page 1431.

Procedures to Migrate to GVP 8.1.1

Complete the following procedures if you are migrating from GVP 8.x to GVP 8.1.1 and VPS 8.1.1:

Note: Use these procedures to migrate GVP on Linux or Windows.

Upgrade GVP

Back Up the Configuration

1. Back up the configurations of the GVP 8.x component `Application` objects.

   Note: You may already have backed up the whole Configuration Layer as part of the Management Framework migration (see Step 1 on page 1560). However, Genesys recommends that you also back up the GVP components individually, to help you reinstate customized configuration options later (see Step 7 on page 1578).

   For each GVP `Application` object in your GVP 8.x deployment, follow Steps 1 and 2 in "Procedures to Migrate to GVP 8.1.5" on page 1570.

Stop GVP Processes

2. Stop GVP: See the sub-steps in Step 3 on page 1570.

Uninstall GVP 8.x

3. Uninstall the GVP 8.x components in Genesys Administrator, see the sub-steps in Step 4 on page 1571.

Create and Install 8.1.1 Applications

4. In Genesys Administrator, create and install the `Applications` for the GVP configuration objects. See "Compatibility Among Components" on page 1435 for the list of components in each GVP 8.x release.

   See Step 5 on page 1571 for the various ways to create and install `Applications`.

   Note: GVP 8.1.x components are installed as Windows Services and can be configured to start automatically.

5. Using the Resource Group Wizard in Genesys Administrator, create the resource groups to provision the GVP resources for the GVP 8.1.1 Resource Manager. For more information about creating the resource groups, see the *Genesys Voice Platform 8.1 Deployment Guide*.
6. Load the GVP 8.1.1 Management Information Bases (MIBs) into your Simple Network Management Protocol (SNMP) management console.

Verify the Configuration

7. Verify that the GVP 8.1.1 configuration replicates the old, GVP 8.x configuration. See the sub-steps in Step 8 on page 1572.
8. If you installed the Media Control Platform release 8.1.1 in a different directory from the 8.x Media Control Platform, see the sub-steps in Step 8 on page 1572.
9. Review the audio files in the `<MCP installation path>/audio` subdirectories. If your deployment uses additional audio files in the `audio` subdirectories in the 8.x installation, manually copy the files from the backup location (see Step 2 on page 1570) into the new `audio` directory. For information about changes to the Media Control Platform since release 8.1, see Table 269 on page 1511.

Upgrade the Reporting Server Database

10. Migrate the Reporting Server database. See "Migrating the Reporting Server Databases".

Start GVP 8.1.1

11. If you did not clear the cookie cache of your browser after you upgraded to Genesys Administrator 8.0.11 (see Step 1 on page 1560), delete cookies now. Otherwise, GVP reports may not work.
12. Start the GVP 8.1.1 components. You can start the components in any order, except for the following requirements:
    - Start the RDBMS server for the Reporting Server database before you start the Reporting Server.

    Note: In GVP 8.1.1, the Fetching Module is designed to start automatically when the Media and Call Control Platforms are started. In GVP 8.1.2, the Fetching Module is integrated with these components and is no longer a separate component.

    For more information about starting and stopping GVP, see the *Genesys Voice Platform 8.1 Deployment Guide*.
13. Verify proper operation of GVP 8.1.1 by checking the logs for errors.

    GVP migration is effectively a new installation, therefore, you might encounter issues similar to the usual setup and startup problems for new installations. The most likely areas to check are successful database upgrade and successful importation of the old configuration. For more information about the errors you may encounter, see the *Genesys Voice Platform 8.1 Troubleshooting Guide*.

    If the upgrade of any component fails, recreate and reinstall it, or roll back to GVP 8.x. For more information, see "Rollback Procedures" on page 1591.

Procedures to Migrate to GVP 8.1

Complete the following procedures if you are migrating from GVP 8.0 to GVP 8.1 and VPS 8.1.

Upgrade GVP

Back Up the Configuration

1. Back up the configurations of the GVP 8.0 component `Application` objects.

   Note: You may already have backed up the whole Configuration Layer as part of the Management Framework migration (see Step 1 on page 1560). However, Genesys recommends that you also back up the GVP components individually, to help you reinstate customized configuration options later (see Step 8 on page 1572).

For each GVP `Application` object in your GVP 8.x deployment, follow Steps 1 and 2 in "Procedures to Migrate to GVP 8.1.5" on page 1570.

Stop GVP Processes

2. Stop GVP: See the sub-steps in Step 3 on page 1570.

Uninstall GVP 8.0

3. Uninstall the GVP 8.0 components. On each GVP host:
   a. Select `Start > Control Panel > Add or Remove Programs`.
   b. Select the component application, and then click `Change/Remove`.
   c. In the confirmation message box, click `OK`.

   The component application is uninstalled, but it is not deleted from the Configuration Database; therefore, it still appears in the `Applications` list in Genesys Administrator.

> **Note:** In general, Genesys recommends that you uninstall components in reverse order of dependency or reverse order of installation, although this is not strictly required for GVP.

Create and Install 8.1 Applications

4. In Genesys Administrator, create and install the `Applications` for the GVP configuration objects. See "Compatibility Among Components" on page 1435 for the list of components in each GVP 8.x release.

   See Step 5 on page 1571 for the various ways to create and install `Applications`.

5. Using the Resource Group Wizard in Genesys Administrator, create the resource groups to provision the GVP resources for the GVP 8.1 Resource Manager. For more information about creating the resource groups, see the *Genesys Voice Platform 8.1 Deployment Guide*.

6. Load the GVP 8.1 Management Information Bases (MIBs) into your Simple Network Management Protocol (SNMP) management console.

Verify the Configuration

7. Verify that the GVP 8.1 configuration accords with the old, GVP 8.0 configuration. See the sub-steps in Step 7 on page 1578.

8. If you installed the Media Control Platform release 8.1 in a different directory from the 8.0 Media Control Platform, update the grammar base path in Microsoft Internet Information Server (IIS): See the sub-steps in Step 8 on page 1579.

9. Review the audio files in the `<MCP installation path>/audio` subdirectories. If your deployment uses additional audio files in the `audio` subdirectories in the 8.0 installation, manually copy the files from the backup location (see Step 2 on page 1570) into the new `audio` directory. For information about changes to the `audio` directory since release 8.0, see "Directories changed" on page 1545 in Table 282, "Component Changes in GVP 8.1," on page 1544.

Upgrade the Reporting Server Database

10. Migrate the Reporting Server database. See "Migrating the Reporting Server Databases" on page 1587.

Start GVP 8.1

11. If you did not clear the cookie cache of your browser after you upgraded to Genesys Administrator 8.0.1 (see Step 1 on page 1560), delete cookies now. Otherwise, GVP reports may not work.
12. Start the GVP 8.1 components. You can start the components in any order, except for the following requirements:
    - Start the RDBMS server for the Reporting Server database before you start the Reporting Server.
    - Start the Fetching Module (and Squid) before you start the Media Control Platform and, if applicable, the Call Control Platform.

    For more information about starting and stopping GVP, see the *Genesys Voice Platform 8.1 Deployment Guide*.
13. Verify proper operation of GVP 8.1 by checking the logs for errors.

    GVP migration is effectively a new installation, therefore, you might encounter issues similar to the usual setup and startup problems for new installations. The most likely areas to check are successful database upgrade and successful importation of the old configuration. For more information about the errors you may encounter, see the *Genesys Voice Platform 8.1 Troubleshooting Guide*.

    If the upgrade of any component fails, recreate and reinstall it, or roll back to GVP 8.0. For more information, see "Rollback Procedures" on page 1591.

Migrating Without Service Interruption

This section contains the procedure to migrate GVP without service interruption. The Resource Manager must be deployed in either active-active or active-standby HA mode for this procedure to be completed successfully.

Notes: Genesys recommends that you execute the steps in the following procedure during low call traffic periods only.

Complete the following steps to enable GVP to continue to service calls without interruption during migration to 8.1.4 or 8.1.3.

Backup the Configuration

1. Back up the GVP 8.x `Application` objects.

   For each GVP `Application` object in your GVP 8.x deployment, follow Steps 1 and 2 in "Procedures to Migrate to GVP 8.1.4" on page 1574.

2. To ensure that you retain the built-in audio files that your deployment uses for DTMF tones and for prompts, back up the files in the `<MCP installation path>/audio` directory and subdirectories.

Upgrade the Reporting Servers

3. If the Reporting Server is not running in HA mode, follow a, b, and c in this step only. If the Reporting Server is running in HA mode complete all of the following sub-steps:
   a. Use a *graceful shutdown* to stop the standby Reporting Server. See the sub-steps in Step 3 on page 1574.
   b. Uninstall the Reporting Server in Genesys Administrator. See the sub-steps in Step 4 on page 1575.
   c. In Genesys Administrator, create and install the Reporting Server `Application`. See Step 5 on page 1575 for the various ways to create and install `Applications`.

   Note: Do not restart the standby Reporting Server.

   d. Use a graceful shutdown to stop the active Reporting Server.
   e. Uninstall the Reporting Server. See Steps b and c above.

   Note: Call data is not lost while both Reporting Servers are off line because the call handling components retain the data in their buffers.

Create the Reporting Server Database

4. Create the GVP 8.1.4 or GVP 8.1.3 database.
   a. Migrate the old database. See "Migrating the Reporting Server Databases" on page 1587.

      Alternatively, you can create a new database. For more information, see the *Genesys Voice Platform 8.1 Deployment Guide*.
   b. Verify that the database connection parameters are configured correctly for the new database.
   c. Restart the standby and active Reporting Servers.

   Note: If the Reporting Server is not running in HA mode, follow the steps for migrating the active Reporting Server.

Upgrade the Resource Manager

5. Upgrade the Resource Manager, starting with the server that is configured as `cluster.mymemberid = 1` in the HA cluster:
   a. Use a *graceful shutdown* to stop the Resource Manager. See the sub-steps in Step 3 on page 1574.
   b. Uninstall the Resource Manager in Genesys Administrator, see the sub-steps in Step 4 on page 1575.

c. In Genesys Administrator, reinstall the existing Resource Manager `Application`. See Step 5 on page 1575 and use the second option to reuse the existing `Applications`.

d. Using Genesys Administrator, import the new `Application` template. A dialog appears to ask whether the you want to overwrite the existing data. Select `No`.

e. Restart the Resource Manger (`cluster.mymemberid = 1`).

f. Wait a few minutes to allow the calls that are in progress to complete.

Note: When you reuse the existing Resource Manager `Application`, you do not have to reassign the Logical Resource Groups (LRG). However, this is not recommended if your the platform has undergone major functional changes. In that case, create a new Resource Manager `Application`.

6. Check the status of port `5060` to ensure the Resource Manager is fully started:
   - On Windows, open the Command Line Console (CLC) and enter `netstat -n -a | find "5060"`.
   - On Linux, enter `netstat -a | grep 5060`.

   The port should be in the `LISTENING` state and both the TCP and UDP ports should be allocated. See Figure 57 on page 1587.
7. To prevent SIP transaction failures, check port status for `9801` (the port where the cluster heartbeat is detected and where replication occurs):
   - On Windows, open the CLC and enter `netstat -n -a | find "9801"`.
   - On Linux, enter `netstat -a | grep 9801`.
8. Upgrade the other Resource Manger in the HA pair (`cluster.mymemberid = 2`). See Step 5 of this procedure.

Migrate the Resource Groups

9. Migrate and provision your existing GVP 8.1.x resource groups, by using the Logical Resource Group Migration Tool (LRGMT) in Genesys Administrator. See Step 6 on page 1576.

Upgrade the Media Control Platforms

10. Upgrade each Media Control Platform application individually by using the same steps you used to upgrade the Resource Manager. See Step 5 of this procedure.

Upgrade the Call Control Platforms

11. Upgrade each Call Control Platform application individually by using the same steps you used to upgrade the Resource Manager. See Step 5 of this procedure.

Figure 57: Check Port Status - netstat CLC

Migrating the Reporting Server Databases

This section contains procedures to migrate your Microsoft SQL or Oracle Reporting Server database by updating the schema for one of the following versions:

- From 8.1.6 to 8.1.7
- From 8.1.5 to 8.1.6
- From 8.1.4 to 8.1.5
- From 8.1.3 to 8.1.4
- From 8.1.2 to 8.1.3
- From 8.1.1 to 8.1.2
- From 8.1 to 8.1.1
- From 8.0 to 8.1.0

Note: If you do not want to upgrade your database schema in order to migrate the data, you can instead back up your existing database and then create a new schema with the latest version of the database schema.

Migrating the Microsoft SQL Server Database

Complete the following steps to upgrade your Microsoft SQL Server database:

Back Up the Database

1. Verify that the Reporting Server process is stopped, and that nothing is connected to the database.

   Genesys recommends that you check that there are no established connections to the Microsoft SQL Server default port number 1433. Use the following command:

   ```
   netstat -na | grep "1433"
   ```

2. Use Microsoft SQL Server Management Studio to connect to the Microsoft SQL Server, and log in using `SA` or the Windows Authentication account.

3. Back up the Reporting Server database:
   a. Check the size of the Reporting Server database, to ensure that you provide a backup destination with sufficient disk space. To view the size, right-click the database in the Microsoft SQL Server Management Studio window, and then select `Properties`.
   b. Right-click the database you want to back up, and then select `Tasks > Back Up`.

      The `Back Up Database` dialog box appears.
   c. In the `Destination` section, select the radio button to back up to disk.
   d. In the `Back up to` text box, enter the path to a disk with sufficient space for the database (see Step 3a).
   e. Click `OK`.
   f. When the backup completes successfully and a confirmation dialog box displays, click `OK`.

Upgrade the Database

4. Upgrade the Reporting Server database:
   a. In the Microsoft SQL Server Management Studio, select `File > Open`.
   b. In the `Open File` dialog box, navigate to the `[InstallationRoot]/scripts/` directory, and select the correct script from Table 290.
   c. Click `Open`.

      You are returned to the Microsoft SQL Server Management Studio window.
   d. In the drop-down list on the toolbar, select the database that you want to upgrade.
   e. Click `Execute`.
   f. After the script has run, verify that the Messages pane does not show any error messages.

Optional Step to Improve Performance

The following step is optional: it applies only to standard mode Reporting Server upgrades.

   g. Run the script `mssql-schema-upgrade-816-817-std-ER317750371_fix.sql`.
      This script creates new indexes to help improve performance, but it also deletes all MCP event logs, Custom Var data and VAR CDRs from the database. The script deletes the following tables:

      CUSTOM_VARS

      EVENT_LOGS

      VAR_CDRS

      The Reporting Server will function without any data in the above tables, but after running the script, you can restore the records for these tables from your pre-upgrade backup.

Migration of the Reporting Server database is complete.

Table 290: Upgrade scripts for MS SQL Server

From version	To version	Execute script
8.1.6	8.1.7	`mssql-schema-upgrade-816-817-std-ER317750371_fix.sql`
non-partitioned 8.1.6	non-partitioned 8.1.7	`mssql-schema-upgrade-816-817-std.sql`
partitioned 8.1.6	partitioned 8.1.7	`mssql-schema-upgrade-816-817-partitioned.sql`
non-partitioned 8.1.5	non-partitioned 8.1.6	`mssql-schema-upgrade-815-816-std.sql`
partitioned 8.1.5	partitioned 8.1.6 mssql-	schema-upgrade-815-816-partitioned.sql
non-partitioned 8.1.4	non-partitioned 8.1.5	`mssql-schema-upgrade-814-815-std.sql`
partitioned 8.1.4	partitioned 8.1.5	`mssql-schema-upgrade-814-815-partitioned.sql`
non-partitioned 8.1.3	non-partitioned 8.1.4	`mssql-schema-upgrade-813-814.sql`
partitioned 8.1.3	partitioned 8.1.4	`mssql-schema-upgrade-813-814.sql`
non-partitioned 8.1.2	non-partitioned 8.1.3	No database upgrade required.
partitioned 8.1.2	partitioned 8.1.3	`mssql-schema-upgrade-812-813-partitioned.sql`
non-partitioned 8.1.1	non-partitioned 8.1.2	`mssql-schema-upgrade-811-812-std.sql`
partitioned 8.1.1	partitioned 8.1.2	`mssql-schema-upgrade-811-812-ent.sql`
8.1	8.1.1	`mssql-schema-upgrade-810-811.sql`
8.0	8.1	`mssql-schema-upgrade-800-810.sql`
Notes: In GVP 8.1.2, if the Reporting Server database is running in partitioned mode, set the `rs.partitioning.enabled` option in the `[persistence]` section to `true`, and select the correct upgrade script above. If you are migrating from 8.1.0 to 8.1.2 (or 8.0 to 8.1.1), you must execute two scripts one after another.		

Migrating the Oracle Database

Complete the following steps to upgrade your Oracle reporting database to schema version 8.1.400, 8.1.300, 8.1.200, 8.1.100, or 8.1.000:

Back Up the Database

1. Verify that the Reporting Server process is stopped, and that nothing is connected to the database.

Genesys recommends that you check that there are no established connections to the Oracle default port number 1521. Use the following command:

```
netstat -na | grep "1521"
```

2. Back up the Reporting Server database.

> **Note:** Genesys recommends that an Oracle database administrator (DBA) perform the database backup.

Upgrade the Database

3. Use any SQL client software (for example, Oracle SQL Developer) to upgrade the Reporting Server database:
   a. In the SQL client, create a connection to the Reporting Server database.
   b. From the Reporting Server installation directory at `[InstallationRoot]/scripts/`, open the correct script for the version to which you are upgrading. See Table 291.
   c. In the script window, select the connection to the Reporting Server database.
   d. Run the script.
   e. After the script has run, verify that the Script Output pane does not show any error messages.

Optional Step to Improve Performance

The following step is optional: it applies only to standard mode Reporting Server upgrades.

f. Run the script `oracle-schema-upgrade-816-817-std-ER317750371_fix.sql`.
This script creates new indexes to help improve performance, but it also deletes all MCP event logs, Custom Var data and VAR CDRs from the database. The script deletes the following tables:

CUSTOM_VARS

EVENT_LOGS

VAR_CDRS

The Reporting Server will function without any data in the above tables, but after running the script, you can restore the records for these tables from your pre-upgrade backup.

Migration of the Reporting Server database is complete.

Table 291: Upgrade Scripts for Oracle DB Server

From version	To version	Execute script
8.1.6	8.1.7	`oracle-schema-upgrade-816-817-std-ER317750371_fix.sql`
non-partitioned 8.1.6	non-partitioned 8.1.7	`oracle-schema-upgrade-816-817-std.sql`
partitioned 8.1.6	partitioned 8.1.7	`oracle-schema-upgrade-816-817-partitioned.sql`
non-partitioned 8.1.5	non-partitioned 8.1.6	`oracle-schema-upgrade-815-816-std.sql`
partitioned 8.1.5	partitioned 8.1.6	`oracle-schema-upgrade-815-816-partitioned.sql`
non-partitioned 8.1.4	non-partitioned 8.1.5	`oracle-schema-upgrade-814-815-std.sql`
partitioned 8.1.4	partitioned 8.1.5	`oracle-schema-upgrade-814-815-partitioned.sql`
non-partitioned 8.1.3	non-partitioned 8.1.4	`oracle-schema-upgrade-813-814-std.sql`
partitioned 8.1.3	partitioned 8.1.4	`oracle-schema-upgrade-813-814-partitioned.sql`
non-partitioned 8.1.2	non-partitioned 8.1.3	No database upgrade required.
partitioned 8.1.2	partitioned 8.1.3	`oracle-schema-upgrade-812-813-partitioned.sql`
non-partitioned 8.1.1	non-partitioned 8.1.2	`oracle-schema-upgrade-811-812-std.sql`
partitioned 8.1.1	partitioned 8.1.2	`oracle-schema-upgrade-811-812-ent.sql`
8.1	8.1.1	`oracle-schema-upgrade-810-811.sql`
8.0	8.1	`oracle-schema-upgrade-800-810.sql`
Notes: In GVP 8.1.2, if the Reporting Server database is running in partitioned mode, set the `rs.partitioning.enabled` option in the `[persistence]` section to `true`, and select the correct upgrade script above.		

Rollback Procedures

If the upgrade of any of the GVP components is unsuccessful, or if you want to roll back to the earlier GVP release, do the following:

1. Stop GVP, or verify that it is stopped.
2. Uninstall the GVP `Applications` (the version you were migrating to), and then delete them from Genesys Administrator.
3. Reinstall the GVP `Applications` (the version you were migrating from).

- If you not only uninstalled the GVP `Applications` but also deleted them in Genesys Administrator (in other words, they are no longer in the Configuration Database), you must recreate, configure, and install them as you would for new installations, as described in the *Genesys Voice Platform 8.1 Deployment Guide*, except that you must use GVP `Application Templates`.
- If you uninstalled the GVP `Applications` but have not yet deleted them in Genesys Administrator (in other words, they are still in the Configuration Database), run the Installation Wizard to install them, as described in the *Genesys Voice Platform 8.1 Deployment Guide*.
- If the reason for the rollback relates to Genesys Administrator issues, roll back Genesys Administrator to release 8.1 or 8.0, as described in the Management Framework part of this guide. Then reinstall the GVP `Applications`, as described in the *Genesys Voice Platform 8.0 Deployment Guide* or the *Genesys Voice Platform 8.1 Deployment Guide*.

4. For each component, reinstate any custom configuration you may have lost in the rollback process.
5. Roll back the Reporting Server database schema, and recover the GVP Reporting Server database. Genesys recommends that a qualified DBA perform the database recovery. See "Rolling Back the Microsoft SQL Server Database" and "Rolling Back the Oracle Database".
6. Restart the GVP `Applications`. For startup requirements, see Step 12 on page 1584.

Note: Consult Professional Services regarding migration of any and all customized Genesys products.

Rolling Back the Microsoft SQL Server Database

Use this recovery procedure to roll back the Microsoft SQL Server.

1. Use Microsoft SQL Server Management Studio to connect to the Microsoft SQL Server, and log in using `SA` or the Windows Authentication account.
2. Remove the current Reporting Server database (the version you were migrating to):
   a. Ensure that the name of the database you backed up previously does not exist on the database server.
   b. If you have used the same name for the database that you have just migrated, delete the database:
      - Right-click the database name and select `Delete`.
      - In the `Delete Object` dialog, check `Close existing connections` and click `OK`.

      The `Databases` tree no longer shows the deleted database.

3. Restore the Reporting Server database (the version you were migrating from):
   a. In the Management Studio Object Explorer window, right-click `Databases`, and select `Restore database`.
   b. In the section, `Specify the source and location of backup sets to restore`, click the `From device` radio button.
   c. At the end of the `From device` field, click the (...) browse button.
   d. When the `Specify Backup` dialog appears, click `Add`.
   e. When the `File selection` dialog appears, browse to the backup file.
   f. Click `OK` twice to confirm and save the settings.
4. In the `Restore database` dialog, check `Restore` for the backup sets you selected in Step 3 and click `OK`.
5. When the restore process is successfully completed and the confirmation dialog box appears, click `OK`.

Rolling Back the Oracle Database

The procedure to rollback the Oracle database should be performed by a qualified database administrator (DBA). Visit the Oracle web site for more information about database recovery and rollback procedures. Genesys recommends you obtain the following reference material from the web site:

- *Oracle Database Backup and Recovery Basics*
- *Oracle Database Backup and Recovery Advanced User's Guide*

If you find this material to be too complex, use this procedure as a guideline to backup and restore the database schema.

Warning! The following steps are intended to present concepts and are not the actual commands to rollback the Oracle database. A qualified DBA should be familiar with the guidelines presented here and be able to determine how they relate to the actual commands to rollback your Oracle database to the original configuration.

1. Backup or export the schema:
   - To backup the schema, run the following commands from a system console:
     - On Windows: `C:\oracle\product\10.2.0\db_1\BIN>exp userid=system/password file=rs_8xx.dmp log=rs_8xx_exp.log owner=reporting`
     - On Linux: `$ORACLE_HOME/bin/exp userid=system/password file=rs_8xx.dmp log=rs_8xx_exp.log owner=reporting`
2. Using any SQL client, connect to the Oracle database as `SYSDBA`.
   a. Delete the `RS user` named, `reporting`.

b. Using the same default tablespace, temp tablespace, role, and privileges, recreate the `RS user` by using the same name, `reporting`.

3. Restore the schema:
   - To restore the schema, run the following import command from a system console:
     - On Windows: `C:\oracle\product\10.2.0\db_1\BIN>imp userid=system/password file=rs_8xx.dmp log=rs_8xx_imp.log fromuser=reporting`
     - On Linux: `$ORACLE_HOME/bin/imp userid=system/password file=rs_8xx.dmp log=rs_8xx_imp.log`

   The backup and restore should be completed without errors.

Note: In this procedure, the `rs_8xx.dmp` and `rs_8xx.imp.log` filenames represent the versions you are backing up and restoring, for example, if you are backing up the 8.1.1 schema on the filenames would be `rs_811.dmp` and `rs_811.imp.log`

High Availability Servers Migration

High Availability (HA) for the Resource Manager on Windows is implemented differently in GVP 8.1.x than it was in GVP 8.0. In GVP 8.1.x the Cluster Manager component is embedded within the Resource Manager itself.

To migrate a Resource Manager `Application` from GVP 8.0 to GVP 8.1.x for HA, you must transfer parameters that were formerly configured in the Cluster Manager `Application` to the `cluster` section in the Resource Manager configuration. Table 292 lists the configuration options that you must set, along with their required values.If you are migrating from 8.1 to 8.1.1, 8.1.2, or 8.1.3, you do not need to transfer these options.

Active-Active Cluster Mode

In GVP 8.1.2 and later releases, the HA Resource Manager can operate in active-active mode. The `cluster.ha-mode` parameter indicates the cluster mode in which the Resource Manager instances are configured and the value of this parameter determines the role they play in the cluster, such as:

- `cluster.ha-mode = active-standby`—Indicates that one Resource Manager instance in the cluster is active, while the other is in standby mode. A single virtual IP is used (for Windows, NLB, and for Linux, Single Virtual IP).
- `cluster.ha-mode = active-active`—Indicates that both Resource Manager instances in the cluster are active and being served by an external load-balancer that is configured with the IP address of the cluster in which these Resource Manager instances reside.
- `cluster.ha-mode = none`—Indicates a stand-alone Resource Manager instance.

Table 292: Migrating HA Configuration Options

8.0 Configuration		8.1.x Resource Manager Configuration	
Component	**Section.Option**	**Section.Option**	**Value**
Cluster Manager	`cluster.NLBScriptPath`	`cluster.FailOverScript`	`$InstallationRoot$/bin/NLB.bat`
Resource Manager	`rm.cluster_ip`	`cluster.virtual-ip`	`<Virtual IP address for all RM hosts in the cluster>`
	`rm.cluster_hotstandby`	`cluster.hotstandby`	`TRUE`
Resource Manager (continued)	`proxy.sip.transport.1` **Note:** You had to change the value of this parameter from its default value to the virtual IP address for the Resource Manager HA setup.	`proxy.sip.transport.1`	`transport 1 tcp:any:5060` (default) **Note:** You do not need to change the value of this parameter from its default value.

Chapter

73 Migration Procedures for GVP 7.6 and VG 7.x

This chapter provides the migration procedures for Genesys Voice Platform (GVP) 7.6 and VoiceGenie (VG) 7.2, and annotations about the migration of VoiceGenie 7.0. Refer to other sections of this book for detailed information about migrating Framework and other Genesys solutions.

This chapter contains the following sections:

Overview of Migration to GVP 8.x

Migrating your GVP 7.6, VG 7.2, or VG 7.0 to GVP 8.x is not strictly migration because you must install a new installation of GVP. Also, there are fewer components in the new GVP 8.1.x architecture and, although the functionality is almost equivalent (enhanced in each GVP 8.1.x release), it is not necessarily provided by the same components. However, it is possible, with proper planning, to upgrade your GVP 7.6 or VG 7.x deployment and, with a few exceptions, retain system functionality while continuing to run your legacy voice and call control applications unchanged.

For information about migrating GVP 7.6 Voice Extensible Markup Language (VoiceXML) and Telera XML (TXML) applications, see the *Genesys Voice Platform 8.1 Application Migration Guide*. For more information about GVP 8.1.x support for legacy interpreter features, see the *Genesys Voice Platform 8.1 Legacy Genesys VoiceXML 2.1 Reference Manual*.

Migration Strategy

Genesys recommends the following strategy for GVP 7.6 and VG 7.x migrations:

1. Install or migrate Management Framework. See Step 1 in "Order of Migration" on page 1428

   Management Framework is the foundation for all Genesys products, solutions, and options and is a prerequisite in the 8.1 VPS.

2. Upgrade or install other prerequisite Genesys components (SIP Server, Composer), as required. See "Compatibility Among Components" on page 1435.

Note: Ensure the version of SIP Server you are installing is 7.6.000.66 or later.

Migrating to GVP 8.1.x

3. Migrate GVP:
   - Build a GVP 8.1.x environment and then retire the 7.x servers or redeploy then in the upgraded platform, (for full details, see Chapter 72 on page 1559).
     - Back up the GVP 7.6 or VG 7.x component configurations.
     - Stop GVP gracefully.
     - Uninstall the GVP 7.6 or VG 7.x components.
     - Create and configure new, GVP 8.1.x `Application` objects, and install the GVP `Applications` on the hosts.
     - Install the Reporting Server database.
     - Start GVP 8.1.x
4. When GVP 8.1.x is operational, copy the configuration options manually from EMPS and other 7.x components to the equivalent 8.1.x components by using Genesys Administrator. (There is no data migration tool for GVP 8.1.x.) See "Mapping Component Configuration Options" on page 1604.
5. When server migration is completed, migrate the IVR Profiles and Dialed Number (DN) mappings by using the information in the *Genesys Voice Platform 8.1 Application Migration Guide*. You can use the internal Perl script tool to convert the `Appid.xml` options to the equivalent IVR Profile configuration options in Genesys Administrator. See also, "IVR Server Configuration Mapping" on page 1620.
6. Verify proper operation of GVP 8.1.x by checking its log for errors.

Note: There are certain considerations when you are migrating the PSTN Connector, which differ depending on the version to which you are migrating. See "Deploying the PSTN Connector with CTI Framework" on page 1441.

Migration of GVP 7.6

This section includes the following topics:

Note: The procedures and mapping tables in this section apply to migrating GVP 7.6 to GVP 8.1.x on Windows only.

Component Mapping

Table 293 shows how GVP 7.6 modules and components map to GVP 8.1.x and Voice Platform Solution (VPS) 8.1 components.

Table 293: GVP 7.6 to 8.1.x Component Mapping

Voice Platform Component or Module	Genesys Voice Platform 8.1.x Equivalent Functionality
IVR Server Client	CTI Connector
SIP Session Manager	Resource Manager and SIP Server 8.0.1
Resource Manager	Resource Manager
Policy Manager	Resource Manager
Application Reporter	Reporting Server (Voice Platform Application Reporter is still used for legacy voice and call control applications.)
EventC	Reporting Server
IP Communication Server	Media Control Platform
Studio	Composer (Voice Platform Studio is still used for legacy voice and call control applications.)
Common	Common (not a separate Installation Package [IP])
MIBs	MIBs
Element Management Provisioning System (EMPS)	Configuration database, multi-tenant Configuration Server, Genesys Administrator
Installation Wizard	Genesys Administrator 8.0.11 Deployment Wizard

Table 293: GVP 7.6 to 8.1.x Component Mapping (Continued)

Voice Platform Component or Module	Genesys Voice Platform 8.1.x Equivalent Functionality
Text-to-Speech	Integrated into the Media Control Platform
Login Server	Integrated into the Genesys Administrator GUI.
Reporter	Integrated into the Genesys Administrator GUI.
Call Status Monitor	Integrated into the Genesys Administrator GUI.
Network Monitor	Integrated into the Genesys Administrator GUI.
Portal	Integrated into the Genesys Administrator GUI.
Application Reporter Java SDK	Same 7.6 component is used.
Application Reporter Java Client	Same 7.6 component is used
Application Reporter COM Client	Same 7.6 component is used
Platform Dispenser	No equivalent (no longer required)
IP Communication Server, Developers Edition (DE)	No equivalent.
CTI Simulator, DE	No equivalent.
Outbound Notification (OBN) Manager	No equivalent in 8.1, however, this component maps directly to the Supplementary Services Gateway, introduced in GVP 8.1.1. See “Outbound Notification Component Mapping” on page 1627.
Bulk Provisioning Tool	Genesys Administrator 8.0.3 MCP Configuration Wizard
H.323 Session Manager	No equivalent.
ASR Log Server	No equivalent.
ASR Log Manager	No equivalent.
ASR Log Agent	No equivalent.
Bandwidth Manager	No equivalent.
Cisco Queue Adapter	CTI Connector (GVP 8.1.4)

Table 293: GVP 7.6 to 8.1.x Component Mapping (Continued)

Voice Platform Component or Module	Genesys Voice Platform 8.1.x Equivalent Functionality
Dialogic Installer	No equivalent.
Voice Communication Server	No equivalent in 8.1, however, this component maps directly to the PSTN Connector, introduced in GVP 8.1.2. See "Voice Communication Server 7.6 to PSTN Connector 8.1.2 Mapping" on page 1611.

Additional Considerations

- Legacy VoiceXML applications can be modified by using Genesys Studio 7.6 only and application reporting for legacy applications can be modified by using VAR 7.6 only. However, you can use these development tools even after migrating to GVP 8.1.x.
- To ensure that your legacy VoiceXML applications are supported in GVP 8.1.x, configure the Legacy GVPi in the Media Control Platform so that they can run unchanged. New VoiceXML applications created in Composer are supported by the NGI only..

> **Note:** For information about migrating GVP 7.6 Voice Extensible Markup Language (VoiceXML) and Telera XML (TXML) applications, see the *Genesys Voice Platform 8.1 Application Migration Guide.* For more information about GVP 8.1 support for legacy interpreter features, see the *Genesys Voice Platform 8.1 Legacy Genesys VoiceXML 2.1 Reference Manual.*

- IVR Server 7.6 and SIP Server 7.6 are interoperable with GVP 7.6 and GVP 8.1.x, but you must have the latest version of SIP Server (see "Compatibility Among Components" on page 1435).
- Although the EventC and the real-time reporting functionality of the 7.6 VP Reporter component are similar in Reporting Server 8.1.x and Genesys Administrator 8.0.11, multi-tenancy is only supported in GVP 8.1.2 and has a completely different architecture. Therefore, you cannot migrate configuration or customer data from GVP 7.6 to GVP 8.1.x. You must install a new instance of the Reporting Server and configure it to provide historical and real-time data as described in the *Genesys Voice Platform 8.1 Deployment Guide* and *Genesys Voice Platform 8.1 User's Guide*. See also, "Reporting Component Mapping" on page 1626.
- GVP 7.6 and GVP 8.1.x cannot operate in mixed mode. You cannot upgrade the GVP 7.6 deployment gradually by migrating one component at a time while the system is operational and processing calls.

Procedures to Migrate GVP 7.6

Complete the following procedures to migrate from GVP 7.6 to GVP 8.1.x:

Upgrade GVP

Back Up the Configuration

1. Back up the configurations of the GVP 7.6 component `Application` objects.

> **Note:** Genesys recommends that you back up the GVP components individually, to help you reinstate customized configuration options later.

Stop GVP Processes

2. Shutdown GVP gracefully to ensure all of the processes are stopped.

Uninstall GVP

3. Uninstall the 7.6 components manually in reverse order of installation:
   a. Go to `Control Panel` > `Add/Remove Programs`.
   b. Select the component you want to uninstall.
   c. Click `Remove`.
   d. When all of the components are uninstalled, restart the host.

   For information about how to uninstall GVP 7.6 components by using the Genesys Deployment Tool or to uninstall Dialogic, see the *Genesys Voice Platform 7.6 Deployment Guide*.

> **Note:** Uninstalling GVP software does not remove its corresponding entry in LDAP. To remove the entry from LDAP, you must delete the node for the corresponding component in the EMPS.

Install GVP 8.1.x

Create and Install 8.1.x Applications

4. In Genesys Administrator, create and install the `Applications` for the following GVP 8.1.x configuration objects:
   - Fetching Module (for the Media Control Platform and Call Control Platform, respectively)
   - Resource Manager
   - Policy Server (if you plan to deploy it)
   - Media Control Platform
   - MRCP Proxy (if you plan to deploy it)
   - Call Control Platform (if you plan to deploy it)
   - Reporting Server
   - CTI Connector (if you plan to deploy it)
   - PSTN Connector (if you are integrating with TDM networks)
   - Supplementary Services Gateway (if you plan to deploy it)

- MRCPv1 or MRCPv2 ASR and TTS servers (if they are required in your deployment)

Note: In GVP 8.1.2, the Fetching Module is integrated with the Media and Call Control Platforms and is no longer a separate component

See Step 4 on page 1578 for the various ways to create and install `Applications`.

5. Modify your configuration options in each of the 8.1.x `Application` objects to the equivalent (or near equivalent) 7.6 configuration. See "Common GVP 7.6 Configuration Options Mapping" on page 1604.

Create the Resource Groups

6. Using the Resource Group Wizard in Genesys Administrator, create the resource groups to provision the GVP resources for the GVP 8.1.x Resource Manager. For more information about creating the resource groups, see the *Genesys Voice Platform 8.1 Deployment Guide*.
7. Load the GVP 8.1.x Management Information Bases (MIBs) into your Simple Network Management Protocol (SNMP) management console. See "SNMP Trap Mapping" on page 1627.

Install the Reporting Server Database

8. Install and configure the Reporting Server database. For installation procedures describing the installation of Microsoft SQL Server and Oracle, see the *Genesys Voice Platform 8.1 Deployment Guide*.

   For details about mapping your EventC component and real-time reporting modules to 8.1.x, see "Reporting Component Mapping" on page 1626.

Start GVP 8.1.x

9. Start the GVP 8.1.x components. You can start the components in any order, except for the following requirements:
   - Start the RDBMS server for the Reporting Server database before you start the Reporting Server.
   - If you are migrating to GVP 8.1 or earlier, start the Fetching Module (and Squid) before you start the Media Control Platform and, if applicable, the Call Control Platform.

   For more information about starting and stopping GVP, see the *Genesys Voice Platform 8.1 Deployment Guide*.
10. Verify proper operation of GVP 8.1.x by checking the logs for errors.

    Because a GVP migration is effectively a new installation, the kinds of problems you may encounter are similar to the usual setup and startup problems for new installations. The most likely areas to check are successful database upgrade and successful importation of the old

configuration. For more information about the errors you may encounter, see the *Genesys Voice Platform 8.1 Troubleshooting Guide*.

If the upgrade of any component fails, recreate and reinstall it. There is no process to rollback to GVP 7.6

Common GVP 7.6 Configuration Options Mapping

This section contains information about the configuration options that require mapping when migrating GVP 7.6 to GVP 8.1.x. The details are described in the following sections:

- Mapping Component Configuration Options, page 1604
- IVR Server Configuration Mapping on page 1620
- Reporting Component Mapping on page 1626
- Outbound Notification Component Mapping on page 1627
- SNMP Trap Mapping on page 1627
- System Prompts Migration on page 1631

Mapping Component Configuration Options

The mappings in this section describe how to migrate the EMPS configuration to the equivalent (or near equivalent) GVP 8.1.x `Application` objects.

IP Communication Server 7.6 to Media Control Platform 8.1.x Mapping

The GVP 8.1.x Media Control Platform supports two VoiceXML interpreter—Legacy GVPi and NGI. If you want your legacy voice and call control applications to run unchanged after migrating to GVP 8.1.x, you must configure GVPi as the default VoiceXML interpreter. In addition, when you are creating the IVR Profile, you must configure the gvp.service-parameter to use GVPi. New applications, written by using Composer are supported by the NGI only.

Configure Legacy GVPi

1. Configure GVPi as the default interpreter:
   a. On the `Provisioning` tab in Genesys Administrator, select `Environment` > `Applications`.
   b. Double-click the `Media Control Platform Application` object you want to configure, and click the `Options` tab.
   c. In the `View` menu, select `Advanced View (Options)`.
   d. In the `sessmgr` section, change the value of the `default_vxml_interpreter` option to `VXML-LGVP`.

Configure IVR Profile

2. Modify an existing IVR Profile to use GVPi:
   a. On the `Provisioning` tab in Genesys Administrator, select `Voice Platform` > `IVR Profiles`.

b. Double-click the IVR Profile you want to modify, and click the `Options` tab.

c. In the `View` menu, select `Advanced View (Options)`.

d. In the `gvp.service-parameters` section, change the value of the `voicexml.gvp.appmodule` option to `fixed, VXML-LGVP`.

Note: IVR Profiles are created and configured by using the Genesys Administrator IVR Profile Wizard. The `voicexml.gvp.appmodule` option is configured automatically with the `fixed, VXML-LGVP` value when you choose `Legacy GVP` in the `Service Properties` page of the wizard. For the procedure describing how to create IVR Profiles using Genesys Administrator, see the *Genesys Voice Platform 8.1 Deployment Guide.*

Configure MRCP Application Objects

If you are using MRCPv1 ASR and TTS servers in your 7.6 deployment, create Speech Resource `Application` objects for each server. After you have created the `Application` objects, configure them to match your GVP 7.6 configuration. Then, assign the `Application` objects to the Media Control Platform.

- Configure the Speech Resource `Application` objects:
  - On the `Provisioning` tab in Genesys Administrator, select `Environment` > `Applications`.
  - Double-click the Speech Resource `Application` object you want to configure, and click the `Options` tab.
  - In the `View` menu, select `Advanced View (Options)`.
  - In the `provision` section, modify the `vrm.client.resource.uri` option to match your 7.6 configuration.

The MRCP Server configuration options are inherited from the Media Control Platform, grouped logically. The logical resource groups (LRG) are managed by the Resource Manager and MRCPv1 traffic for GVP is managed by the MRCP Proxy.

For procedures to create, configure, and assign `Speech Resource Application` objects using Genesys Administrator, see the *Genesys Voice Platform 8.1 Deployment Guide.*

Additional Configuration Mapping

Table 294 includes additional mappings to the Media Control Platform, Resource Manager, and the Environment tenant objects, and the Media Control Platform resource group object in Genesys Administrator. Some custom options in 7.6 may not be transferable to Genesys Administrator. Most PageCollector and PopGateway custom options are transferable but other custom options may not have equivalent functionality.

Table 294: IPCS 7.6 Options Mapping

IPCS Option (GVP 7.6)	Configuration Propagated to GVP 8.1.x
Node: CFA	
Option: Application in case of failures The value is the application that is executed if the VoiceXML start page cannot be fetched.	Resource Manager `Application` Section: `rm` Option: `cti-unavailable-action` Value: `s;voicexml;<url>` Where `<url>` is the HTTP URL for the script that is executed if Computer Telephony Integration (CTI) becomes unavailable.
Option: Default DNIS The value is the DID that is used if DNIS is not available.	Environment Tenant Section: `gvp.general.section` Option: `default-application` Value:`<IVRProfileName>` Where `<IVRProfileName>` is the name of the IVR Profile created in Genesys Administrator (8.1) that will be used if the DNIS cannot be ascertained. The start URL is specified in the IVR Profile.
Node: PopGateway1/Route1	
Option: Max Channels	Media Control Platform Resource Group Using the Resource Group Wizard in Genesys Administrator, `Media Control Platform Application` objects are grouped to provide load balancing for the resources within the group. In the `Resource Assignment` pane of the wizard, enter a number for `Max Channels` in the `Max Ports` field. **Note:** GVP 8.1.2 supports multiple Media Control Platform components installed on a single host, enabling migration of multiple routes and PopGateways. See “Procedure to Migrate Multi-Tenant Configurations” on page 1632.
Node: PopGateway1	
Option: SIP Header for DID	Resource Manager `Application` Section: `rm` Option: `sip-header-for-dnis`

Table 294: IPCS 7.6 Options Mapping (Continued)

IPCS Option (GVP 7.6)	Configuration Propagated to GVP 8.1.x
Option: Hangup Cause Fetch Error (INI name: `hangupcause_fetcherror`)	Media Control Platform `Application` Section: `PopGateway1` Option: `hangupcause_fetcherror`
Option: Hangup Cause Internal Error (INI name: `hangupcause_internalerror`)	Media Control Platform `Application` Section: `PopGateway1` Option: `hangupcause_internalerror`
Option: Hangup Cause Parse Error (INI name: `hangupcause_parseerror`)	Media Control Platform `Application` Section: `PopGateway1` Option: `hangupcause_parseerror`
Option: Hangup Cause Resource Unavailable (INI name: `hangupcause_rscunavailable`)	Media Control Platform `Application` Section: `PopGateway1` Option: `hangupcause_rscunavailable`
Option: Session Timer Interval	Media Control Platform `Application` Section: `sip` Option: `sessionexpires`
Option: OutboundDefaultSANI	Media Control Platform `Application` Section: `sip` Option: `defaultfrom`
Option: Local IP Address	Media Control Platform `Application` Section: `sip` Option: `transport.0`
Node: MCU	
Option: Inband DTMF Edge Detection	Media Control Platform `Application` Section: `mpc` Option: `dtmf.detectedge`
Option: Inband DTMFInterdigit Silence	Media Control Platform `Application` Section: `mpc` Option: `dtmf.maxsilence`
Option: Inband DTMF Minimum Duration	`Media Control Platform Application` Section: `mpc` Option: `dtmf.minduration`

Table 294: IPCS 7.6 Options Mapping (Continued)

IPCS Option (GVP 7.6)	Configuration Propagated to GVP 8.1.x
Option: Fallback DTMF mode	Media Control Platform `Application` Section: `mpc` Option: `dtmf.send, dtmf.receive`
Node: MCU>TTS>MRCP	
Option: Out of Service Ping Interval (seconds)	Media Control Platform `Application` Section: `vrm` Option: `SRM Ping Frequency` Specify the value in milliseconds.
Node: PageCollector	
Option: HTTP Caching (INI name:`cachemode`)	Media Control Platform `Application` Section: `PageCollector` Option: `cachemode`
Option: Host Cache List (INI name: `hoststobecached`)	Media Control Platform `Application` Section: `PageCollector` Option: `hoststobecached`
Option: ProxyServer List (INI name: `proxylist`)	Media Control Platform `Application` Section: `PageCollector` Option: `proxylist`
Option: Proxy Bypass List (INI name: `proxybypasslist`)	Media Control Platform `Application` Section: `PageCollector` Option: `proxybypasslist`

GQA (IVR Server Client) 7.6 to CTI Connector 8.1.x Mapping

This configuration mapping is not required if there are no CTI components in your 7.6 deployment. If you are using CTI components in any configuration—in-front of the switch, behind the switch, or network mode—complete the following tasks.

1. For each customer in EMPS 7.6:
   a. Select `Resellers` > `View Customers Provisioning Information:`
   b. On the `GenesysCTI` tab, check to see if the `IVR Server Client Active` box is checked.
   c. If the `Active` box is checked, perform the following task for the GVP version you are installing:

- If you are migrating GVP 8.1.0 or 8.1.1 to GVP ,8.1.2—The CTI Connector is part of the Resource Group (within a configuration unit) and is created and provisioned when you use the Logical Resource Group Migration Tool (LRGMT) in Genesys Administrator (see "Migrate the Resource Groups" on page 1578).
- If you are migrating from GVP 8.0 to GVP 8.1.2—Install and configure a CTI Connector `Application` object in Genesys Administrator for each `Primary IVR Server Client Machine` name found in the list of EMPS customers.

Note: Genesys recommends that a `CTI Connector Application` is installed and configured (on a separate host) for each GQA host (not process) in GVP 7.6. To determine the number of CTI Connectors required for your call volumes and configuration, see the `Genesys Hardware Sizing Guide`.

IServer Customer List for CTIC

2. If you have a common set of IVR Servers (no primary or secondary servers), with the same version number and configuration in GVP 7.6 and GVP 8.1:
   a. In Genesys Administrator, double-click the CTI Connector `Application` object.
   b. On the `Options` tab, in the `View` menu, select `Advanced View (Options)`.
   c. `In the IVRSC` section, modify the value of the `customeriserverslist` option by listing each IServer section separated by a semi-colon(;)—for example:

      `IServer_Sample1;IServer_Sample2;IServer_Sample3`
   d. Using the customer names in the `customeriserverslist`, create a separate `IVRSC` section for each IVR Server associated with the CTI Connector `Application` object.
   e. In each newly created `IVRSC` section, edit the following options:
      - `clientname = CME IVR Client Name>`
      - `iserveraddr = <IPAddress of IVR Server>`
      - `iserversocket = <GLI Port of IVR Server>`

      where `<CME IVR Client Name>` is the name of the IVR Server client, `<IPAddress of IVR Server>` is the IP address of the IVR Server client, and `<GLI Port of IVR Server>` is the Generic Layer Interface (GLI) Port of the IVR Server client. This information is found in EMPS by navigating to the `Servers` > `Iservers` > `IserverInfo`, under the specific IServer node.
3. In the `CTIC` section, modify the value of the `RMIPAddr` option, enter the IP address of the Resource Manager.

Configuration Mappings in IVR Profiles

4. The configuration options in Table 295 are found in the EMPS `<Reseller>_<Customer>_GQA` node and can be configured in the `IVR Profile` object, however, Genesys recommends that you use the Genesys

Administrator IVR Profile Wizard to create and configure IVR Profiles. This configuration is not required when GVP 7.6 is in standalone mode. See "IVR Server Configuration Mapping" on page 1620.

Table 295: EMPS GQA (IVR Server Client) Options Mapping

GQA Option (GVP 7.6)	Configuration Propagated to (GVP 8.1)
Node: `<Reseller>_<Customer>_GQA` (INI name: `cti.FetchScriptIdFromURS`)	CTI Connector `Application` Section: `IVRSC` Option: `cti.FetchScriptIdFromURS`
Node: `<Reseller>_<Customer>_GQA` (INI name: `ScriptIdKeyName`)	CTI Connector `Application` Section: `IVRSC` Option: `ScriptIdKeyName`

When GVP 7.6 is installed in single-tenant mode, a set of IVR Servers is assigned to the IPCS/VCS. The configuration option is found in EMPS on the `GenesysCTI` tab. Select the `GVPOwner reseller` section of the `Admin customer` and you will find the `LocalISvrClient` enabled. There is not equivalent configuration in GVP 8.1. You cannot assign a group of CTI Connectors to the Media Control Platform; CTI Connectors are assigned to the Resource Manager in GVP 8.1.

Resource Manager, SIP Session Manager, Policy Manager 7.6 to Resource Manager 8.1.x Mapping

The Resource Managers role in GVP 8.1 is significantly different than in GVP 7.6., for example, the 8.1 Resource Manager:

- Functions as a proxy. (In 7.6, it functioned as a redirector.)
- Functions as a SIP Session Manager together with SIP Server. (There is not a separate SIP Session Manager in 8.1.)
- Stores resource information in memory. (There is no database as there is in 7.6 [Polyhedra].)
- Manages GVP resources (Media and Call Control Platforms, CTI Connectors). (Resource do not register with the Resource Manager as they did in 7.6.)
- Manages policies for IVR Profiles. (There is not a separate Policy Manager as in 7.6.)

Create Resource Groups

To ensure that the configuration in the GVP 7.6 Resource Manager, SIP Session Manager, and Policy Managers is equivalent in GVP 8.1 Resource Manager, create the following resource groups by using the Resource Group Wizard in Genesys Administrator.

1. A `Gateway Group` for the SIP Server resource.

2. A `CTIC Group` for CTI Connector resources.
3. An `MCP Group` for Media Control Platform resources.

You can find information about how to create and configure all of these resource groups in the *Genesys Voice Platform 8.1 Deployment Guide.*

The default values for all other mandatory Resource Manager options are sufficient to make the initial call to test system functionality.

Policy Server

Starting with GVP 8.1.4, the Policy Server is introduced to validate and resolve GVP-specific business rules (the policies that are enforced by the Resource Manager) and provide this information to Genesys Administrator in response to HTTP queries. It is a stand-alone Java process that exposes an HTTP interface through which it connects to Management Framework. The read permissions that are granted when a user logs into Genesys Administrator determine which Management Framework objects are accessible.

For more information how the Policy Server performs its functions, see the *Genesys Voice Platform 8.1 Deployment Guide*.

Voice Communication Server 7.6 to PSTN Connector 8.1.2 Mapping

Most of the Voice Communication Server (VCS) 7.6 configuration options can be mapped directly to the GVP 8.1.2 PSTN Connector options, because the TDM interfaces for these components are identical. However, other VCS parameters have no equivalent PSTN Connector options, because unlike VCS, which incorporates a VoiceXML interpreter, the PSTN Connector acts as a pure media gateway (translates TDM calls to VoIP calls and vice-versa).

For more information about how the PSTN Connector performs its functions, see the *Genesys Voice Platform 8.1 Deployment Guide.*

Configuration Options Mapping

In the following tables, the VCS 7.6 configuration options are mapped to the PSTN Connector and Media Control Platform 8.1.2 options. For the most part, the options and option values remain the same in the 8.1.2 configuration, however, they are configured in different sections of the PSTN Connector and Media Control Platform `Application` objects in Genesys Administrator.

Table 296 describes the telephony configuration options.

Table 296: EMPS VCS Options Mapping—Telephony

VCS Options (GVP 7.6)	Configuration Propagated to GVP 8.1.2
General Configuration	
Node: `PopGateway/Route` Option: `isdnTablefile`	PSTN Connector `Application` Section: `DialogicManager_<routenum>` Option: `isdnTablefile`

Table 296: EMPS VCS Options Mapping—Telephony (Continued)

VCS Options (GVP 7.6)	Configuration Propagated to GVP 8.1.2
Node: PopGateway/Route Option: Ports	PSTN Connector Application Section: DialogicManager_<routenum> **Mandatory** Option: Ports
Node: PopGateway/Route Option: Signaling	PSTN Connector Application Section: DialogicManager_<routenum> **Mandatory** Option: Signaling
General Configuration	
Node: PopGateway/Route Option: T1rbProtocolFile	PSTN Connector Application Section: DialogicManager_<routenum> Option: T1rbProtocolFile
Node: PopGateway/Route Option: T1rbSetChanAllow	PSTN Connector Application Section: DialogicManager_<routenum> Option: T1rbSetChanAllow
Node: PopGateway/Route Option: Type	PSTN Connector Application Section: DialogicManager_<routenum> **Mandatory** Option: Type
Node: PopGateway/Route Option: Describe	PSTN Connector Application Section: DialogicManager_<routenum> Option: Describe
Node: PopGateway Option: DisableBCh	PSTN Connector Application Section: DialogicManager Option: DisableBCh
Inbound Call Configuration	
Node: PopGateway Option: DisablePortOnFailRingback	PSTN Connector Application Section: DialogicManager Option: DisablePortOnFailRingback
Node: PopGateway Option: RingbackFile	PSTN Connector Application Section: DialogicManager Option: RingbackFile

Table 296: EMPS VCS Options Mapping—Telephony (Continued)

VCS Options (GVP 7.6)	Configuration Propagated to GVP 8.1.2
Node: PopGateway/Route Option: OverlapRcvAniDnisLen	PSTN Connector Application Section: DialogicManager_<routenum> Option: OverlapRcvAniDnisLen
Node: PopGateway/Route Option: OverlapReceiveEnabled	PSTN Connector Application Section: DialogicManager_<routenum> Option: OverlapReceiveEnabled
Inbound Call Configuration	
Node: PopGateway/Route Option: NewCallCcConfirmationType	PSTN Connector Application Section: DialogicManager_<routenum> Option: NewCallConfirmationType
Node: PopGateway/Route Option: DisableIsdnAlerting	PSTN Connector Application Section: DialogicManager_<routenum> Option: DisableIsdnAlerting
Node: PopGateway/Route Option: T1rbAniDnisDelim	PSTN Connector Application Section: DialogicManager_<routenum> Option: T1rbAniDnisDelim
Node: PopGateway/Route Option: T1rbAniDnisOrder	PSTN Connector Application Section: DialogicManager_<routenum> Option: T1rbAniDnisOrder
Node: PopGateway/Route Option: T1rbRemoveAniDnisDelim	PSTN Connector Application Section: DialogicManager_<routenum> Option: T1rbRemoveAniDnisDelim
Node: PopGateway/Route Option:T302Duration	PSTN Connector Application Section: DialogicManager_<routenum> Option: T302Duration
Outbound Call Configuration	
Node: PopGateway Option: RemovePortOnDialFailure	PSTN Connector Application Section: DialogicManager Option: RemovePortOnDialFailure

Table 296: EMPS VCS Options Mapping—Telephony (Continued)

VCS Options (GVP 7.6)	Configuration Propagated to GVP 8.1.2
Node: PopGateway Option: RetriesOnGlare	PSTN Connector Application Section: GatewayManager Option: RetriesOnGlare
Node: PopGateway Option: TollFreeNPA	PSTN Connector Application Section:DialogicManager Option: TollFreeNPA
Outbound Call Configuration	
Node: PopGateway/Route Option: AuthCodeReq	PSTN Connector Application Section: DialogicManager_<routenum> Option: AuthCodeReq
Node: PopGateway/Route Option: DialPrefix	PSTN Connector Application Section: DialogicManager_<routenum> Option: DialPrefix
Node: PopGateway/Route Option: HomeNPA	PSTN Connector Application Section: DialogicManager_<routenum> Option: HomeNPA
Node: PopGateway/Route Option: HomeNXX	PSTN Connector Application Section: DialogicManager_<routenum> Option: HomeNXX
Node: PopGateway/Route Option: InvalidNPA	PSTN Connector Application Section: DialogicManager_<routenum> Option: InvalidNPA
Node: PopGateway/Route Option:IsdnNumberingPlan	PSTN Connector Application Section: DialogicManager_<routenum> Option: IsdnNumberingPlan
Node: PopGateway/Route Option: MaxDialDigits	PSTN Connector Application Section: DialogicManager_<routenum> Option: MaxDialDigits
Node: PopGateway/Route Option: NetType	PSTN Connector Application Section: DialogicManager_<routenum> Option: NetType

Table 296: EMPS VCS Options Mapping—Telephony (Continued)

VCS Options (GVP 7.6)	Configuration Propagated to GVP 8.1.2
Node: PopGateway/Route Option: NtwkSpcfcFcltySrvc	PSTN Connector Application Section: DialogicManager_<routenum> Option: NtwkSpcfcFcltySrvc
Node: PopGateway/Route Option: DirNumbers	PSTN Connector Application Section: DialogicManager_<routenum> Option: DirNumbers
Outbound Call Configuration	
Node: PopGateway/Route Option: IsdnNumberingType	PSTN Connector Application Section: DialogicManager_<routenum> Option: IsdnNumberingType
CPA Configuration	
Node: PopGateway Option: AnswerSupervisionType	PSTN Connector Application Section: DialogicManager_<routenum> Option: AnswerSupervisionType
Node: PopGateway Option: CpaOption	PSTN Connector Application Section: DialogicManager Option: CpaOption
Node: PopGateway Option: CpaPandOption	PSTN Connector Application Section: DialogicManager Option: CpaPandOption
Node: PopGateway Option: CpaContNoSignal	PSTN Connector Application Section: DialogicManager Option: CpaContNoSignal
Node: PopGateway Option: CpaFallTime	PSTN Connector Application Section: DialogicManager Option: CpaFallTime
Node: PopGateway Option: CpaMaxInterRing	PSTN Connector Application Section: DialogicManager Option: CpaMaxInterRing

Table 296: EMPS VCS Options Mapping—Telephony (Continued)

VCS Options (GVP 7.6)	Configuration Propagated to GVP 8.1.2
Node: PopGateway Option: CpaMinRing	PSTN Connector Application Section: DialogicManager Option: CpaMinRing
Node: PopGateway Option: CpaQualTemplates	PSTN Connector Application Section: DialogicManager Option: CpaQualTemplates
CPA Configuration	
Node: PopGateway Option: CpaStartDelay	PSTN Connector Application Section: DialogicManager Option: CpaStartDelay
Node: PopGateway Option: DisableCustomTones	PSTN Connector Application Section: DialogicManager Option: DisableCustomTones
CPA Configuration Through CPD	
Node: PopGateway/CPD Option: PrimaryTServerAddress	PSTN Connector Application Section: DialogicManager_CPD Option: PrimaryTServerAddress
Node: PopGateway/CPD Option: PrimaryTServerPort	PSTN Connector Application Section: DialogicManager_CPD Option: PrimaryTServerPort
Node: PopGateway/CPD Option: BackupTServerAddress	PSTN Connector Application Section: DialogicManager_CPD Option: BackupTServerAddress
Node: PopGateway/CPD Option: BackupTServerPort	PSTN Connector Application Section: DialogicManager_CPD Option: BackupTServerPort
Node: PopGateway/CPD Option: CPDTServerConnTimeout	PSTN Connector Application Section: DialogicManager_CPD Option: CPDTServerConnTimeout

Table 296: EMPS VCS Options Mapping—Telephony (Continued)

VCS Options (GVP 7.6)	Configuration Propagated to GVP 8.1.2
Node: PopGateway/CPD Option: CPDCallsByTServer	PSTN Connector Application Section: DialogicManager_CPD Option: CPDCallsByTServer
Node: PopGateway/CPD Option: CPDFax2AsAM	PSTN Connector Application Section: DialogicManager_CPD Option: CPDFax2AsAM
CPA Configuration Through CPD	
Node: PopGateway/CPD Option: CPDOffHookDelay	PSTN Connector Application Section: DialogicManager_CPD Option: CPDOffHookDelay
Node: PopGateway/CPD Option: CPDPostConnectPriority	PSTN Connector Application Section: DialogicManager_CPD Option: CPDPostConnectPriority
Node: PopGateway/CPD Option: CPDPreConnectPriority	PSTN Connector Application Section: DialogicManager_CPD Option: CPDPreConnectPriority
Node: PopGateway/CPD Option: CPDTServerCallClear	PSTN Connector Application Section: DialogicManager_CPD Option: CPDTServerCallClear
Node: PopGateway/CPD Option: CPDWaitOffHook	PSTN Connector Application Section: DialogicManager_CPD Option: CPDWaitOffHook
Node: PopGateway/CPD Option: CPDBased	PSTN Connector Application Section: DialogicManager_<routenum> Option: CPDBased
Transfer Configuration	
Node: PopGateway/Route Option: BlindXferPreHangupSleep	PSTN Connector Application Section: DialogicManager_<routenum> Option: BlindXferPreHangupSleep

Table 296: EMPS VCS Options Mapping—Telephony (Continued)

VCS Options (GVP 7.6)	Configuration Propagated to GVP 8.1.2
Node: PopGateway/Route Option: tbctType	PSTN Connector Application Section: DialogicManager_<routenum> Option: tbctType
Media Configuration	
Node: PopGateway Option: ResetPortOnMediaTimeout	PSTN Connector Application Section: DialogicManager Option: ResetPortOnMediaTimeout
Media Configuration	
Node: PopGateway Option: MaxMediaFuncTime	PSTN Connector Application Section: DialogicManager **New** Option: MaxMediaFuncTimeMsec
Node: PopGateway Option: DialogicReadBufferBytes	PSTN Connector Application Section: DialogicManager **New** Option: MinDownloadSize
Node: PopGateway Option: TMgrVoxIndexFileAlaw	PSTN Connector Application Section: DialogicManager Option: TMgrVoxIndexFileAlaw
Node: PopGateway/Route Option: MediaVoxResourceBoard	PSTN Connector Application Section: DialogicManager_<routenum> Option: MediaVoxResourceBoard

Table 297 includes mappings for the legacy GVP interpreter (GVPi) configuration options.

Table 297: EMPS VCS Options Mapping—Interpreter

VCS Options (GVP 7.6)	Configuration Propagated to GVP 8.1
Node: PopGateway Option: ADNEnable	Media Control Platform Application Section: PopGateway<num> Option: ADNEnable
Node: PopGateway Option: DefaultANI	Media Control Platform Application Section: PopGateway<num> Option: DefaultANI

Table 297: EMPS VCS Options Mapping—Interpreter (Continued)

VCS Options (GVP 7.6)	Configuration Propagated to GVP 8.1
Node: PopGateway Option: DispenserURLFetchTimer	Media Control Platform Application Section: PopGateway<num> Option: DispenserURLFetchTimer
Node: PopGateway Option: VxmlRecursiveErrorLoopCounter	Media Control Platform Application Section: Vxmli **New** Option: max_loop_count
Node: PopGateway Option: MaxDtmfDigits	Media Control Platform Application Section: PopGateway<num> Option: MaxDtmfDigits
Node: PopGateway Option: VxmlSystemRootURL	Media Control Platform Application Section: Vxmli **New** Option: defaults_vxml_url
Node: PopGateway Option: freeasrresourceonbridgexfer	Media Control Platform Application Section: PopGateway<num> Option: freeasrresourceonbridgexfer

Table 298 describes the ASR and TTS configuration options.

Table 298: EMPS VCS Options Mapping—ASR and TTS

VCS Options (GVP 7.6)	Configuration Propagated to GVP 8.1
ASR Configuration	
Node: PopGateway/ASR Option: mrcpasrserverurl	Media Control Platform Application Section: Provision **New** Option: vrm.client.resource.uri
Node: PopGateway/ASR Option: mrcpasrservervendorname	Media Control Platform Application Section: Provision **New** Option: vrm.client.TransportProtocol

Table 298: EMPS VCS Options Mapping—ASR and TTS (Continued)

VCS Options (GVP 7.6)	Configuration Propagated to GVP 8.1
TTS Configuration	
Node: `TTS_MRCP` Option: `mrcpttsservervendorname`	Media Control Platform `Application` Section: `Provision` **New** Option: `vrm.client.resource.uri`
Node: `TTS_MRCP` Option: `minaudiodnldsize`	Media Control Platform `Application` Section: `Provision` **New** Option: `vrm.client.TransportProtocol`

New or Changed Options

The following options or sections are new or changed in the 8.1.x PSTN Connector configuration:

- The `XferConnect` option (one-channel transfer type) is no longer applicable in 8.1.x. However, the PSTN Connector can enable a single-channel transfer type for a Blind Transfer or AT&T Transfer whenever it receives SIP messages with a custom header from the Media Control Platform.
- In addition to the sections in Table 296, two new sections, `MediaManager` and `GatewwayManager` have been added to PSTN Connector `Application` object configuration.

For more information about these new sections and a complete list of options, see the *Genesys Voice Platform 8.1 User's Guide*.

IVR Server Configuration Mapping

This section describes how to migrate your configuration by providing mapping information for these specific GVP 7.6 deployment scenarios:

- "Behind the Switch Mode" on page 1621
- "In-front of the Switch Mode" on page 1623
- "Network Mode" on page 1624
- "Standalone Mode" on page 1626

The terms, *behind the switch*, *in-front of the switch*, *Standalone*, and *Network mode* do not necessarily describe how GVP is configured to operate in relation to the switch, but actually describes the configuration of IVR Server.

For information about how the CTI Connector is configured to support IVR Server, see the *Genesys Voice Platform 8.1 Deployment Guide*. For information about how SIP Server and IVR Server are configured in various deployment scenarios, see the *Voice Platform Solution 8.1 Integration Guide*.

Behind the Switch Mode

The most common behind-the-switch configuration is implemented when IVR Server is behind the switch and GVP is in front of the switch. One of the advantages to using this configuration is that it supports the use of more than one IVR Server client.

If your GVP 7.6 deployment is configured to operate in behind-the-switch mode, you can configure the GVP 8.1.x CTI Connector, Resource Manager, and IVR Profiles to support this configuration. However, some configuration options in EMPS cannot be migrated to 8.1.x, specifically:

- In IPCS > `PopGateway` node > `SIP` tab > `SIP Header for IVR Port` attribute—may have a value of `No Selection`, `To`, or `Request URI`.
- In IPCS > `PopGateway1` node > `IVR` tab > `Primary DID Mapper` attribute—may have a value of `http://localhost:9810/did_url_mappings/GenericDID.xml` or `http://localhost:9810/did_url_mappings/$did$.xml`).

Table 299 shows the configuration options in EMPS that can be migrated to 8.1.x.

Table 299: EMPS IPCS 7.6 Options Mapping—Behind the switch

IPCS (GVP 7.6)	Configuration Propagated to GVP 8.1
Node: CFA > General tab Option: Use CTI Client for ANI & DNIS Value: 1 or 0	• CTI connector Application object Section: CTIC Option: DNSIndicator Value: ◦ If CTI Client for ANI & DNIS = 1, DNSIndicator = IVR Server ◦ If SIP Header for DID = History-Info in the IPCS PopGateway > SIP node, DNSIndicator = HistoryInfoHeader ◦ If SIP Header for DID = No Selection in the IPCS PopGateway > SIP node, DNSIndicator = ToHeader ◦ If GetDNISFromIServer = true, DNSIndicator = IVR Server ◦ If CTI Client for ANI & DNIS = 0, Resource Manager Application object Section: rm Option: sip-header-for-dnis Value: Either HistoryInfoHeader or ToHeader (should match the value that was entered for DNSIndicator above.) Section: GatewayGroup Option: use-cti Value: 1
Node: PopGateway > SIP tab Option: SIP Header for DID Value: No Selection or History-Info	
Node: CFA > General tab Option: Transfer Type Value: Transfer Through CTI or Platform Transfer	IVR Profile Section: gvp.service-parameters Option: cti.TransferOnCTI Value: ◦ If Transfer Type = Transfer Through CTI, cti.TransferOnCTI = fixed, yes ◦ If Transfer Type = Platform Transfer, cti.TransferOnCTI = fixed, no

GVP 7.6 can be deployed in behind-the-switch mode, in three scenarios:

- With SIP Server 7.6.

- With multiple Media Gateways and MG Groups that communicate directly with Resource Manager and SIP Session Manager, but with no SIP Server.
- With a softswitch communicating with Resource Manager and SIP Session Manager, but with no SIP Server.

During the migration to GVP 8.1.x, the Media Gateway and softswitch in the last two scenarios must be configured to inter operate with SIP Server. For information about how to configure these elements, see the *Framework 7.6 Deployment Guide.*

In-front of the Switch Mode

If your GVP 7.6 deployment is configured to operate in front of the switch, you can configure the GVP 8.1.x CTI Connector, Resource Manager, and IVR Profiles to support this configuration.However, some configuration options in EMPS cannot be migrated to 8.1.x, specifically:

- In IPCS > `PopGateway` node > `SIP` tab > `SIP Header for IVR Port` attribute—may have a value of `No Selection`, `To`, or `Request URI`.
- In IPCS > `PopGateway1` node > `IVR` tab > `Primary DID Mapper` attribute—may have a value of `http://localhost:9810/did_url_mappings/$did$.xml`).

Table 300 shows the configuration options in EMPS that can be migrated to 8.1.x.

Table 300: EMPS IPCS 7.6 Options Mapping—In-front of the switch

IPCS (GVP 7.6)	Configuration Propagated to GVP 8.1.x
Node: `CFA > General` tab Option: `Transfer Type` Value: `Platform Transfer`	IVR Profile Section: `gvp.service-parameters` Option: `cti.TransferOnCTI` Value: `fixed, no`

Table 300: EMPS IPCS 7.6 Options Mapping—In-front of the switch (Continued)

IPCS (GVP 7.6)	Configuration Propagated to GVP 8.1.x
Node: CFA > General tab Option: Use CTI Client for ANI & DNIS Value: 0	• CTI Connector Application object Section: CTIC Option: DNSIndicator Value: ◆ If SIP Header for DID = History-Info in the IPCS PopGateway>SIP node, DNSIndicator = HistoryInfoHeader ◆ If SIP Header for DID = No Selection in the IPCS PopGateway>SIP node, DNSIndicator = ToHeader ◆ If GetDNISFromIServer = false, DNSIndicator =ToHeader • Resource Manager Application object Section: rm Option: sip-header-for-dnis Value: Either HistoryInfoHeader or ToHeader (should match the value that was entered for DNSIndicator above) Section: GatewayGroup Option: use-cti Value: 2
Node: PopGateway > SIP tab Option: SIP Header for DID Value: No Selection or History-Info	

Network Mode

If your GVP 7.6 deployment is configured to operate in network mode, you can configure the GVP 8.1.x CTI Connector and Resource Manager to support this configuration. However, some configuration options in EMPS cannot be migrated to 8.1.x, specifically:

- In IPCS > PopGateway node > SIP tab > SIP Header for IVR Port attribute—may have a value of No Selection, To, or Request URI.
- In IPCS > PopGateway1 node > IVR tab > Primary DID Mapper attribute—may have a value of http://localhost:9810/did_url_mappings/did.xml).

Table 301 shows the configuration options in EMPS that can be migrated to 8.1.x.

Table 301: EMPS IPCS 7.6 Options Mapping—Network Mode

IPCS (GVP 7.6)	Configuration Propagated to GVP 8.1
Node: CFA > General tab Option: Use CTI Client for ANI & DNIS Value: 0	• CTI connector Application object Section: CTIC Option: DNSIndicator Value: ◆ If SIP Header for DID = History-Info in the IPCS PopGateway>SIP node, DNSIndicator = HistoryInfoHeader ◆ If SIP Header for DID = No Selection in the IPCS PopGateway>SIP node, DNSIndicator = ToHeader ◆ If GetDNISFromIServer = true, DNSIndicator =ToHeader • Resource Manager Application object Section: rm Option: sip-header-for-dnis Value: Either HistoryInfoHeader or ToHeader (should match the value that was entered for DNSIndicator above) Section: GatewayGroup Option: use-cti Value: 2
Node: PopGateway > SIP tab Option: SIP Header for DID Value: No Selection or History-Info	
Node: CFA > General tab Option: Transfer Type Value: Platform Transfer	IVR Profile Section: gvp.service-parameters Option: cti.TransferOnCTI Value: fixed, no
Node: EMPS > Customer Provisioning > GenesysCTI tab Option: IVR Server Mode Value: Network Option: Called Num Value: DNIS or TFN	CTI Connector Application object Section: ctic Option: cti.UseCalledNumAs Value: Either DNIS or TFN (should match the value that was entered in the Called Num option in EMPS)

Standalone Mode

If your GVP 7.6 deployment is configured to operate in standalone mode, you can configure the GVP 8.1.x CTI Connector, Resource Manager, and IVR Profiles to support this configuration.

When GVP 7.6 is configured in standalone mode, CTI functionality is not enabled (in `EMPS` > `Customer` > `GenesysCTI` tab > `IVR Server Active`, the checkbox is unchecked). Therefore, when you create the Gateway Resource Group for SIP Server in GVP 8.1.x, you must select `Always Off` for the `CTI Usage` option.

See Table 300 on page 1623 for additional configuration (from 7.6 EMPS) that must be migrated to GVP 8.1.x.

Reporting Component Mapping

You must install a new installation of Reporting Server to upgrade your systems to GVP 8.1.x to obtain historical and real-time reporting data. GVP 8.1.x includes enhanced reporting functionality within new platform architecture and although there may be similarities to the functionality in GVP 7.6, there is no direct migration process. For more information about the GVP 8.1.x reporting architecture, see the *Genesys Voice Platform 8.1 Deployment Guide*.

GVP 8.1.x provides the following reporting features:

Real-time, Historic, and VAR Reports

- GVP 8.1.x is tightly integrated with Genesys Administrator, a web-based GUI that provides access to Real-Time, Historic, and Voice Application Reports (VAR), similar to the Unified Login Server (ULS) and VAR GUIs in GVP 7.6. Genesys Administrator retrieves information about components and voice and call control applications (IVR Profiles) from the Configuration Database, and provides access to the Historic reports.

Peak Reports and Call Status Monitoring

- As in GVP 7.6, Call Peak Reports are available for IVR Profiles and components, providing hourly, daily, weekly, and monthly reporting metrics. In addition, the Genesys Administrator Dashboard, provides status information similar to the Call Status Monitor in GVP 7.6.

Legacy VoiceXML Applications

- You can continue to use Genesys Studio 7.6 and Voice Application Reporter (VAR) 7.6 after migrating to GVP 8.1.x. Legacy VoiceXML applications can be modified only in Studio and application reporting is available only by using VAR. VoiceXML applications created by using Composer are supported by the NGI only and the associated VAR reports are accessed by using Genesys Administrator in GVP 8.1.x.

For detailed information about how GVP 8.1.x logs data and provides reports, or for information about the Genesys Administrator Dashboard, or Historic and VAR reporting interfaces, see the *Genesys Voice Platform 8.1 User's Guide*.

Outbound Notification Component Mapping

The 7.6 Outbound Notification (OBN) component maps directly to the 8.1.1 Supplementary Services Gateway (SSG) component. The Supplementary Services Gateway replaces OBN (supported in GVP 8.1.1 and later) and provides a similar, but richer HTTP interface for placing outbound calls.

Note: The Supplementary Services Gateway also replaces the VoiceGenie (VG) remdial, which is now deprecated.

To migrate from OBN-based outbound calling to the Supplementary Services Gateway, complete the following steps:

1. Update the trigger applications used to initiate outbound requests through OBN to conform to the new Supplementary Services Gateways XML schema. Compare the OBN schema to the Supplementary Services Gateways schema to determine what must be modified. For a complete description and example of the Supplementary Services Gateway schema, see the *Genesys Voice Platform 8.1 User's Guide*.
2. Genesys recommends that you migrate VoiceXML applications that require the use of the Legacy GVP 7.6 interpreter. In GVP 8.1.1, the Supplementary Services Gateway supports only the Next Generation Interpreter (NGI) for outbound calling. In GVP 8.1.2, it supports both NGI and the Legacy GVPi.

For information about migrating GVP 7.6 Voice Extensible Markup Language (VoiceXML) and Telera XML (TXML) applications, see the *Genesys Voice Platform 8.1 Application Migration Guide.*

For more information about how the Supplementary Services Gateway functions and how it interacts with trigger applications and SIP Server, see the *Genesys Voice Platform 8.1 Deployment Guide*.

SNMP Trap Mapping

GVP 7.6 and GVP 8.1.x components generate traps that can be viewed by using an SNMP Management Console, and the MIBs that are loaded on the console host, are included in the Installation Packages (IP) for both platforms. However, the SNMP traps and MIBs differ between 7.6 and 8.1.x.

This section provides trap mapping tables to assist you in determining which traps to enable to monitor your environment for unexpected or unallowable conditions, in order to prevent them from reoccurring.

For more information about SNMP traps and the MIBs, see the *Genesys Voice Platform 8.1 SNMP and MIB Reference.*

Table 302 contains GVP 7.6 ASR and TTS to GVP 8.1.x Media Control Platform trap mappings.

Table 302: ASR/TTS to Media Control Platform Trap Mappings

GVP 7.6	GVP 8.1.x
cnASRServerError	MCP_SRM_MRCPADPT_ASR_SERVER_ERROR
cnASRRequestTimeout	MCP_SRM_MRCPADPT_ASR _REQUEST_TIMEOUT
cnASRRequestConnFailure	MCP_SRM_MRCPADPT_ASR _REQUEST_SEND_FAILURE
cnASRErrorResponse	MCP_SRM_MRCPADPT_ASR_MRCP_ERROR_RESPONSE
cnASRErrorEvent	MCP_SRM_MRCPADPT_ASR _ MRCP_ERROR_EVENT
cnTTSTrap	Obsolete. Used for native TTS integration.
cnTTSRequestAbandoned	
cnTTSRequestRejected	
cnTTSMaxSizeExceeded	
cnTTSNoLangSupport	
cnTTSRequestInvalid	
cnTTSConversionError	
cnTTSWriteError	
cnTTSInitializationError MCP_SRM_MR	CPADPT_FAIL_LOADING_MRCP_MODULE MCP_SRM_MRCPADPT_CONFIGURATION_ERROR
cnTTSServerError	MCP_SRM_MRCPADPT_TTS_SERVER_ERROR
cnTTSRequestTimeout	MCP_SRM_MRCPADPT_TTS_REQUEST_TIMEOUT
cnTTSRequestConnFailure	MCP_SRM_MRCPADPT_TTS_REQUEST_SEND_FAILURE
cnTTSErrorResponse	MCP_SRM_MRCPADPT_TTS_MRCP_ERROR_RESPONSE
cnTTSErrorEvent	MCP_SRM_MRCPADPT_TTS_MRCP_ERROR_EVENT

Table 303 contains GVP 7.6 Policy Manager, SIP Session Manager, and Resource Manager to GVP 8.1.x Resource Manager trap mappings.

Table 303: PM/SSM/RM to Resource Manager

GVP 7.6	GVP 8.1.x
Policy Manager (PM)	
cnAppOutAllPortsBusy	GVPLOG_RM_POLICYVIOLATIONERROR, GVPLOG_RM_BURSTAPPBEGIN
cnAppOutAllPortsNotBusy	GVPLOG_RM_POLICYVIOLATIONERROR, GVPLOG_RM_BURSTAPPEND
cnCustSessionAllPortsBusy	GVPLOG_RM_POLICYVIOLATIONERROR, GVPLOG_RM_BURSTTENANTBEGIN
cnCustSessionAllPortsNotBusy	GVPLOG_RM_POLICYVIOLATIONERROR, GVPLOG_RM_BURSTTENANTEND
cnAppSessionAllPortsBusy	GVPLOG_RM_POLICYVIOLATIONERROR
cnAppSessionAllPortsNotBusy	GVPLOG_RM_POLICYVIOLATIONERROR
cnPMStarted	GVPLOG_RM_STARTUP
cnPMDown	GVPLOG_RM_SHUTDOWN
cnPMAppAdded	Not relevant in 8.1.x
cnPMAppRemoved	Not relevant in 8.1.x
Resource Manager (RM)	
cnRMDatabaseError	Not relevant in 8.1.x
SIP Session Manager (SSM)	
cnSSMResourceNotAvail	GVPLOG_RM_RESOURCEALLOCERR, GVPLOG_RM_NOMATCHINGSERVICETYPE, GVPLOG_RM_NOMATCHINGGWPREFERENCE
cnSSMCommFailure	Not relevant in 8.1.x
cnSSMDatabaseError	Not relevant in 8.1.x
cnSSMDIDXMLError	GVPLOG_RM_DNISNOTEXIST

Table 303: PM/SSM/RM to Resource Manager (Continued)

GVP 7.6	GVP 8.1.x
cnSSMCallTransfered	Not relevant in 8.1.x
cnNetworkError	GVPLOG_RM_APPPROFILENOTFOUND, GVPLOG_RM_DEFAULTIVRPROFILENOTFOUND

Table 304 contains GVP 7.6 GQA (IVR Server Client) to GVP 8.1.x CTI Connector trap mappings.

Table 304: GQA (IVR Server Client) to CTI Connector

GVP 7.6	GVP 8.1.x
cnIQANetworkUpTrap	CTIC_IVR_SERVER_UP
cnIQANetworkFailureTrap	CTIC_IVR_SERVER_DOWN
cnIQAStartedTrap	Not relevant in 8.1.x
cnIQADownTrap	Not relevant in 8.1.x

Table 305 contains GVP 7.6 OBN to GVP 8.1.x Supplementary Services Gateway trap mappings.

Table 305: OBN to Supplementary Services Gateway

GVP 7.6	GVP 8.1.x
cnServerStarted	SSG_STARTED (ssgStarted)
cnServerStopped	SSG_STOPPED (ssgStopped)
cnOBNCFAMachineNotReachable	SSG_SIPSERVER_CONTACT_FAILED (ssgSIPServerContactFailed)
cnOBNInvalidFailureURL	SSG_NOTIFICATION_URL_GET_FAILED (ssgNotificationURLGetFailed)

Table 306 contains GVP 7.6 VCS to GVP 8.1.2 PSTN Connector trap mappings.

Table 306: VCS to PSTN Connector

GVP 7.6	GVP 8.1.2
cnDChannelDown	PSTN_DLGC_D_CHAN_STATUS_DOWN
cnDChannelUp	PSTN_DLGC_D_CHAN_STATUS_UP
cnBChannelDown	PSTN_DLGC_B_CHAN_STATUS_DOWN
cnBChannelUp	PSTN_DLGC_B_CHAN_STATUS_UP
cnPortStatusChanged	PSTN_DLGC_B_CHAN_STATUS_CHANGED
cnLinkErrorTrap	PSTN_DLGC_MGR_LINK_ERROR
cnLinkErrorOkTrap	PSTN_DLGC_MGR_LINK_OK
cnNoFreeChannels	PSTN_DLGC_NO_FREE_PORTS

System Prompts Migration

You can migrate your GVP 7.6 system prompts to GVP 8.1.x by copying the vox files from the folder in IPCS (7.6) to the `<MCP_install_dir>\vxmlroot\VoxFiles\en-us` folder on the Media Control Platform.(8.1.2). Table 307 contains a list of the GVP 7.6 prompts that can be transferred.

Table 307: GVP 7.6 System Prompts

Filename	Output	Description
`BadFetchError.vox`	`error.badfetch`	Sorry. You have got a bad fetch error. Exiting.
`NoAuthorizationError.vox`	`error.noauthorization`	Sorry. No Authorization error. Exiting.
`SemanticError.vox`	`error.semantic.UnsupportedAudioFormat`	Sorry. You have got a semantic error. Exiting.
`Error.vox`	`error.unsupported.format`	Sorry. The specified audio format is not supported. Exiting.
	`error`	Sorry. You have an error. Exiting.

Table 307: GVP 7.6 System Prompts (Continued)

Filename	Output	Description
UnsupportedLangError.vox	error.unsupported.language	Sorry. The specified language is not supported. Exiting.
SpokeTooEarly.vox	nomatch.com.telera.speechtooearly	Sorry. Could you please repeat? You spoke too early.
NoMatch.vox	noinput	Sorry. I did not understand.
NoInput.vox		Sorry. I did not hear you.
Help.vox	help	Sorry. There is no help provided.
MaxSpeechTimeout.vox	maxspeechtimeout	Sorry. The speech input is too long.
NoCatchHandler.vox	All other errors	Sorry. There is no catch handler provided. Exiting.

Migrating Your Existing Multi-Tenant Environment

GVP 8.1.2 and Genesys Administrator 8.0.3 provide tools and wizards to assist you when migrating GVP 7.x multi-tenant environments, however, the GVP 8.1.2 hierarchy and architecture are different and there are some things you must consider when you are planning the migration. See “Considerations for Multi-Tenant Migrations” on page 1431.

Procedure to Migrate Multi-Tenant Configurations

Use the Bulk Tenant Creation Wizard in this procedure to create a new GVP 8.1.2 tenant hierarchy from your existing multi-tenant configuration.

Prerequisites

Before you begin to migrate your multi-tenant configuration, ensure that you have completed the following prerequisites:

- The existing 7.6 multi-tenant configuration is backed up to a file from which it can be retrieved, if necessary.
- Multi-tenant Configuration Server .8.0.1 or later is installed.
- Genesys Administrator 8.0.3 is installed.
- You have Read/Write permissions for the root tenant.

Creating the Tenant Hierarchy

Create the Tenant Data File

1. Open a new text file:
   a. Using the Comma Separated Value (CSV) format, add the tenant data in two columns as follows.

      ```
      Tenant1
      Tenant2, Tenant1
      Tenant3, Tenant1
      ```

      where the first column is the tenant name (mandatory) and the second column is the parent tenant name (optional).

      Note: If the second column is empty, the Environment (default) tenant is assumed to be the parent. There is no required order for the rows; the wizard create the hierarchy based on the tenant data.

   b. Save the file to a directory from which it can be imported.

Start the Bulk Tenant Wizard

2. Use the Bulk Tenant Wizard to import the Tenant data and create the hierarchy:
   a. In Genesys Administrator, select Provisioning > Environment > Tenants.
   b. In the Tasks pane, select Import Tenants.
   c. The Bulk Tenant Creation Wizard is invoked.
   d. Click Add.
   e. In the Choose file window, browse to the CSV file that contains the tenant data, and click Open.

      The data is imported and the wizard performs a consistency check before displaying the hierarchy in the Tenants panel.
   f. Click Finish.

Create DID Groups and Migrate DID Configurations

Create the DID Data File

3. Open a new text file for the DID data:
   a. Using the CSV format, add the DID data as follows.

      ```
      DID-DID, DID Group, Tenant
      DID, DID Group, Tenant
      DID-DID, DID Group, Tenant
      ```

      where the first column is the DID or range of DIDs (in the <start>-<end> format if adding a range), the second column is the name of the group, and the third column is the name of the tenant that owns the DID Group.
   b. Save the file to a directory from which it can be imported.

Start the Bulk Operations Wizard

4. Use the Bulk Operations Wizard to create DID Groups to organize and assign your existing DIDs:
   a. On the Provisioning tab, click Voice Platform > DID Groups.
   b. In the Tasks pane, select Bulk Operations Wizard.
   c. When the Introduction appears, click Next.
   d. In the Operation Selection page, click Add, and then Next.
   e. In the File Selection page, browse to the CSV file that contains the DID data.
   f. Click the checkbox if the uploaded file includes column headings.

      The Confirmation page appears and the wizard checks and validates the DIDs.
   g. Click Finish.

Migrate Policy and Port Provisioning Data

5. Provision policies and ports for a tenant in Genesys Administrator:
   a. On the Provisioning tab, click Voice Platform > Tenants.
   b. In the Tenant field, double-click the tenant that you want to provision.

      The Configuration tab appears.
   c. Click the Options tab.
   d. In the gvp.policy section, configure the values for the gvp.policy/usage-limits, gvp.policy/level2-burst-limit, and gvp.policy/level3-burst-limit options.

Migration of VG 7.2

This section includes the following topics:

Component Mapping

Table 308 shows how VG 7.2 modules and components map to GVP 8.1.x and Voice Platform Solution (VPS) 8.1 components.

Table 308: VG 7.2 to 8.1.x Component Mapping

VG 7.2 Component or Module	VPS 8.1.x Equivalent Functionality
OA&M Framework	Genesys Administrator and Reporting Server
System Management Console	Genesys Administrator

Table 308: VG 7.2 to 8.1.x Component Mapping (Continued)

VG 7.2 Component or Module	VPS 8.1.x Equivalent Functionality
VoiceXML Platform (Media Platform)	Media Control Platform (with Media Server module)
CCXML Platform	Call Control Platform
Speech Resource Manager	No equivalent (Only MRCP is used to interface with ASR and TTS engines. There is no native API integration.)
Speech Resource Manager Proxy (MRCP Proxy)	No equivalent
ICM Connector	CTI Connector
SIP Proxy	Resource Manager
Studio	Composer (Voice Platform Studio is still used for legacy voice and call control applications.)
Squid Proxy (Third party application)	Squid Proxy (Third party application that is installed on Media and Call Control Platforms)

Deployment Options

GVP 8.1.x includes components that can be combined to provide several deployment options, enabling you to retain the functionality in your existing environment while providing enhanced features and functionality that allow you to expand your current service offerings, such as.

- **Resource Manager replaces your existing SIP Proxy**—This component acts as a proxy for SIP traffic between any two SIP components, residing between all SIP resources within the GVP system architecture. The Resource Manager is the interface to a collection of media-processing resources, such as the Media Control Platform, the Call Control Platform, the Supplementary Services Gateway, audio and video conferencing, and other resources. It is a mandatory component.
- **Policy Server**—Validates and resolves GVP-specific business rules (the policies that are enforced by the Resource Manager) and provides this information to Genesys Administrator in response to HTTP queries. It is a stand-alone Java process that exposes an HTTP interface through which it connects to Management Framework. The read permissions that are granted when a user logs into Genesys Administrator determine which Management Framework objects are accessible.
- **Media Control Platform replaces your existing VoiceXML or Media Platform**—This component is the core component of GVP, because it executes the actual voice applications in the solution. In addition, it is used

by other communication layer components, such as SIP Server, to provide broader customer service scenarios, such as agent interactions, and many other functions. In GVP 8.1.2, the integrated Media Server module includes enhanced functionality and features that were previously provided by the Genesys Stream Manager. The Media Control Platform is a mandatory component.

- **Fetching Module**—This module, a separate component prior to GVP 8.1.2, is now integrated with the Media and Call Control Platforms and is responsible for fetching VoiceXML and CCXML files, and HTTP/HTTPS resources.
- **Squid Proxy is installed on the Media and Call Control Platform hosts**—This third-party application acts as the caching proxy for the Fetching Module and has not changed from GVP 7. x.
- **MRCP Proxy**—Resides between all Media Control Platform and the MRCPv1 resources within a GVP deployment, acting as a proxy for MRCPv1 traffic. This component accepts client requests (from Media Control Platform) and sends them to ASR and TTS speech servers.
- **Call Control Platform replaces your existing CCXML Platform**—This component supports the execution of CCXML 1.0 applications in SIP-based environments with services defined by applications written in CCXML. The Call Control Platform makes use of the Media Control Platform services to provide dialog resources, however, it is capable of moving calls around and can connect them to dialog resources. It is an optional component.
- **CTI Connector replaces your existing ICM Connector**—The CTI Connector acts as a SIP Back-to-Back User Agent (B2BUA) to provide connectivity to the larger Genesys suite of products through the IVR Server XML interface. When IVR Server is deployed in VoIP or time division multiplexing (TDM) environments, integration with the VPS is achieved by using the CTI Connector. This is an optional component, but is required if IVR Server is deployed.
- **PSTN Connector replaces the Dialogic integration functionality of the Media Platform**—The PSTN Connector telephony interface is identical to the one in VG 7.0. If you are installing the PSTN Connector during migration, ensure your current hardware is supported in GVP 8.1.2. For a complete list of supported Dialogic cards (and other hardware requirements), see the *Genesys Voice Platform 8.1 Deployment Guide*.
- **Supplementary Services Gateway—**Install this component to manage the initiation of outbound sessions. The Supplementary Services Gateway provides services for customer applications through the SIP Server to the Resource Manager by establishing outbound calls between the caller and the Media Control Platform. The Resource Manager can then enforce policies or prevent certain customers from placing outbound calls. The Supplementary Services Gateway is an optional component.

- **Reporting Server replaces some of your existing OAM Framework functionality and tools, such as Quality Advisor**—The Reporting Server provides a comprehensive view of the calls serviced by a GVP deployment. The Reporting Server receives data from the Media Control Platform for VoiceXML applications, from the Call Control Platform for CCXML applications, and from other components involved in servicing a call, such as the Resource Manager. The Reporting Server provides call analysis service and Quality Advisor functionality. It is one of the key components of the GVP logging and reporting feature, which is referred to as *GVP Reporting.* The Reporting Server is not mandatory but is a highly recommended component.

Other VPS Components and Third Party Servers

- **Genesys Administrator replaces some of your existing OAM Framework functionality, Framework tools, such as Quality Advisor and Call Analyzer, and SMC**—The Genesys Administrator Web-based GUI is used to manage all Genesys products, including GVP, with a single user interface. It is part of the Management Framework User Interaction Layer, accessing many functions through its interface, such as configuration, provisioning, management, monitoring, data collection, installation and deployment. Genesys Administrator is mandatory in the VPS.
- **Composer either replaces or is used in conjunction with your existing Studio development tool—**Composer is a voice application development tool that is used to develop VoiceXML and CCXML applications. It is the preferred tool for customers who write their own applications, but you can use any tool you choose. Composer is optional in the VPS.
- **MRCPv1 or MRCPv2 Servers replace your existing Speech Resource Manager**—GVP uses third-party MRCP speech-recognition technology to incorporate automatic speech recognition and synthesis technology to incorporate text-to-speech for use in voice applications. Using ASR and TTS in a GVP deployment is optional. See the applicable vendor web site for information about how to configure your speech server.

For a complete description of the GVP 8.1 architecture, and component functionality, see the *Genesys Voice Platform 8.1 Deployment Guide*.

Procedures to Migrate VG 7.2

Complete the following procedures to migrate from VG 7.2 to GVP 8.1.x:

Upgrade VG

Back Up the Configuration

1. Back up the configurations of the VG 7.2 component `Applications`.

> **Note:** Genesys recommends that you back up the VG components individually, to help you reinstate customized configuration options later.

Stop VG Processes

2. Shutdown the VG gracefully to ensure all of the processes are stopped:
   a. In the Command Line Console (CLC), type `Stop` or use the `Start/Stop Software` page on the `SMC > Operations` tab.
   b. Stop all VG External Agent services:
      - At the Windows `Start` menu, select `Control Panel > Administrative Tools > Services`.
      - Highlight each VG External Agent service, and change the status to `Stop`.

> **Note:** Some of the VG External Agent services you may find are, `vgsquidnt`, `vgphoneticagnt`, `RSKC`, or `RSKS`.

Uninstall VG

3. Uninstall the 7.2 components manually in reverse order of installation:
   a. Go to `Control Panel` > `Add/Remove Programs`.
   b. Select the component you want to uninstall.
   c. Click `Remove`.
   d. When all of the components are uninstalled, restart the host.

You can also use this procedure to uninstall Dialogic software.

Install GVP 8.1.x

Create and Install 8.1.x Applications

4. In Genesys Administrator, create and install the `Applications` for the following GVP 8.1.x configuration objects:
   - Resource Manager
   - Media Control Platform
   - Call Control Platform (if it is present in your deployment)
   - Reporting Server
   - CTI Connector (if you are adding it to your deployment [supported on Windows only])
   - PSTN Connector ((if it is present in your deployment)
   - Supplementary Services Gateway (if it is present in your deployment)

- MRCPv1 or MRCPv2 ASR and TTS servers (if they are required in your deployment)

Note: In GVP 8.1.2, the Fetching Module is integrated with the Media and Call Control Platforms and is no longer a separate component.

See Step 4 on page 1578 for the various ways to create and install `Applications`.

5. Modify your configuration options in each of the 8.1.x `Application` objects to the equivalent (or near equivalent) 7.2 configuration. See "Component Mapping" on page 1634 and "Deployment Options" on page 1635.

Create the Resource Groups

6. Using the Resource Group Wizard in Genesys Administrator, create the resource groups to provision the GVP resources for the GVP 8.1.x Resource Manager. For more information about creating the resource groups, see the *Genesys Voice Platform 8.1 Deployment Guide*.
7. Load the GVP 8.1.x Management Information Bases (MIBs) into your Simple Network Management Protocol (SNMP) management console. See "SNMP Trap Mapping" on page 1627.

Install the Reporting Server Database

8. Install and configure the Reporting Server database. For installation procedures describing the installation of Microsoft SQL Server and Oracle, see the *Genesys Voice Platform 8.1 Deployment Guide*.
9. For details about mapping your EventC component and real-time reporting modules to 8.1.x, see "Reporting Component Mapping" on page 1626.

Start GVP 8.1.x

10. Start the GVP 8.1.x components. You can start the components in any order, except for the following requirements:
    - Start the RDBMS server for the Reporting Server database before you start the Reporting Server.
    - If you are migrating to GVP 8.1 or earlier, start the Fetching Module (and Squid) before you start the Media Control Platform and, if applicable, the Call Control Platform.

    For more information about starting and stopping GVP, see the *Genesys Voice Platform 8.1 Deployment Guide*.
11. Verify proper operation of GVP 8.1.x by checking the logs for errors.

    Because a GVP migration is effectively a new installation, the kinds of problems you may encounter are similar to the usual setup and startup problems for new installations. The most likely areas to check are successful database upgrade and successful importation of the old

configuration. For more information about the errors you may encounter, see the *Genesys Voice Platform 8.1 Troubleshooting Guide*.

If the upgrade of any component fails, recreate and reinstall it. There is no process to rollback to GVP 7.2.

Migration of VG 7.0

This section includes the following topics:

Component Mapping

Table 309 shows how VG 7.0 modules and components map to GVP 8.1.x and Voice Platform Solution (VPS) 8.1 components.

Table 309: VG 7.0 to 8.1.x Component Mapping

VG 7.0 Component or Module	GVP 8.1.x Equivalent Functionality
OA&M Framework	Genesys Administrator and Reporting Server
System Management Console	Genesys Administrator
VoiceXML Platform (Media Platform)	Media Control Platform (with Media Server module)
CCXML Platform	Call Control Platform
Speech Resource Manager	No equivalent (Only MRCP is used to interface with ASR and TTS engines. There is no native API integration.)
Speech Resource Manager Proxy (MRCP Proxy)	No equivalent
ICM Connector	No Equivalent
SIP Proxy	Resource Manager

Deployment Options

GVP 8.1.x provides several deployment options that enable you retain the functionality in your existing environment and provides enhanced features and functionality that allow you to expand your current service offerings. See “Deployment Options” on page 1635.

Procedures to Migrate VG 7.0

Complete the following procedures to migrate from VG 7.0 to GVP 8.1.x:

Upgrade VG

Back Up the Configuration

1. Back up the configurations of the VG 7.0 component `Applications`.

> **Note:** Genesys recommends that you back up the VG components individually, to help you reinstate customized configuration options later.

2. If your network interfaces with TDM networks using Dialogic software:
   a. Back up the following directories:
      - `C:\Program Files\Dialogic\data` directory.
      - `C:\Program Files\Dialogic\cfg` directory.
   b. In the Windows Registry, export the following registry keys to a back up location:
      - `\HKEY_LOCAL_MACHINE\SOFTWARE\Dialogic\Installed Boards`
      - `\HKEY_LOCAL_MACHINE\SOFTWARE\Dialogic\Intel Dialogic Global Call`

Stop VG Processes

3. Shutdown the VG gracefully to ensure all of the processes are stopped:
   a. In the Command Line Console (CLC), type `Stop` or use the `Start/Stop Software` page on the `SMC > Operations` tab.
   b. Stop all VG External Agent services:
      - At the Windows `Start` menu, select `Control Panel > Administrative Tools > Services`.
      - Highlight each VG External Agent service, and change the status to `Stop`.

> **Note:** Some of the VG External Agent services you mayfind are, `vgsquidnt`, `vgphoneticagnt`, `RSKC`, or `RSKS`.

Uninstall VG

4. Uninstall the 7.0 components manually in reverse order of installation:
   a. Go to `Control Panel` > `Add/Remove Programs`.
   b. Select the component you want to uninstall.
   c. Click `Remove`.
   d. When all of the components are uninstalled, restart the host.

You can also use this procedure to uninstall Dialogic software.

Install GVP 8.1.x

Create and Install 8.1.x Applications

5. In Genesys Administrator, create and install the `Applications` for the following GVP 8.1.x configuration objects:

- Resource Manager
- Media Control Platform
- Call Control Platform (if it is present in your deployment)
- Reporting Server
- CTI Connector (if you are adding it to your deployment [supported on Windows only])
- PSTN Connector ((if it is present in your deployment)
- Supplementary Services Gateway (if it is present in your deployment)
- MRCPv1 or MRCPv2 ASR and TTS servers (if they are required in your deployment)

Note: In GVP 8.1.2, the Fetching Module is integrated with the Media and Call Control Platforms and is no longer a separate component.

See Step 4 on page 1578 for the various ways to create and install `Applications`.

6. Modify your configuration options in each of the 8.1.x `Application` objects to the equivalent (or near equivalent) 7.0 configuration. See "Component Mapping" on page 1634 and "Deployment Options" on page 1635.
7. Using the Resource Group Wizard in Genesys Administrator, create the resource groups to provision the GVP resources for the GVP 8.1.x Resource Manager. For more information about creating the resource groups, see the *Genesys Voice Platform 8.1 Deployment Guide*.
8. Load the GVP 8.1.x Management Information Bases (MIBs) into your Simple Network Management Protocol (SNMP) management console. See "SNMP Trap Mapping" on page 1627.

Install the Reporting Server Database

9. Install and configure the Reporting Server database. For installation procedures describing the installation of Microsoft SQL Server and Oracle, see the *Genesys Voice Platform 8.1 Deployment Guide*.
10. For details about mapping your EventC component and real-time reporting modules to 8.1.x, see "Reporting Component Mapping" on page 1626.

Start GVP 8.1.x

11. Start the GVP 8.1.x components. You can start the components in any order, except for the following requirements:
    - Start the RDBMS server for the Reporting Server database before you start the Reporting Server.

- If you are migrating to GVP 8.1 or earlier, start the Fetching Module (and Squid) before you start the Media Control Platform and, if applicable, the Call Control Platform.

For more information about starting and stopping GVP, see the *Genesys Voice Platform 8.1 Deployment Guide*.

12. Verify proper operation of GVP 8.1.x by checking the logs for errors.

Because a GVP migration is effectively a new installation, the kinds of problems you may encounter are similar to the usual setup and startup problems for new installations. The most likely areas to check are successful database upgrade and successful importation of the old configuration. For more information about the errors you may encounter, see the *Genesys Voice Platform 8.1 Troubleshooting Guide*.

If the upgrade of any component fails, recreate and reinstall it. There is no process to rollback to GVP 7.0.

Genesys

Part

24 The Gplus Adapter 7 for mySAP ERP Migration

This section discusses the preliminary migration procedures and the migration order for the G*plus* Adapter 7 for mySAP ERP. This Part contains the following chapters:

- Chapter 74, “Introduction to the Gplus Adapter 7 for mySAP ERP Migration,” on page 1647 discusses the preliminary migration procedures and the migration order for the G*plus* Adapter 7 for mySAP ERP.
- Chapter 75, “Changes in Configuration Options for the Gplus Adapter 7 for mySAP ERP,” on page 1655 discusses changes (additions, deletions, and modifications) in the product that need specifically to be addressed during the migration process.
- Chapter 76, “Migration Procedures,” on page 1663 discusses the migration procedures for release 6.1 of T-Gate to the G*plus* Adapter 7 for mySAP ERP.

Chapter

74 Introduction to the Gplus Adapter 7 for mySAP ERP Migration

This chapter discusses the preliminary migration procedures and the migration order for the G*plus* Adapter 7 for mySAP ERP.

There are three main sections in this chapter:

Preliminary Migration Procedures

Note: If you want to upgrade your operating system before migrating your Genesys product, contact Professional Services.

The migration process includes these preliminary procedures for the G*plus* Adapter 7 for mySAP ERP:

1. Review Chapter 2, "Licensing Migration," on page 47 for more information about licensing, and Part 2, "Framework Migration" on page 59, for the compatibility among different versions of Genesys products and general migration notes for Genesys Framework components.
2. Examine "Migration and Upgrade Order" on page 1648.
3. Look at the option changes in "Changes to Configuration Options for the Gplus Adapter" on page 1656.

Notes:

- Please note that these tables only discuss changes that directly affect the migration to this product from 6.1 T-Gate.
- For complete information about what's new in this release of the G*plus* Adapter 7 for mySAP ERP and how this version functions, please see the *Gplus Adapter 7 for mySAP ERP Getting Started Guide* and the *Gplus Adapter 7 for mySAP ERP Deployment Guide*.
- For a complete list of documentation relevant to the migration of this product, see "Reference Materials" below.

4. Review other issues pertaining to the migration of the 6.1 T-Gate product to the G*plus* Adapter 7 for mySAP ERP.

Reference Materials

- *Gplus Adapter 7 for mySAP ERP Getting Started Guide*
- *Gplus Adapter 7 for mySAP ERP Deployment Guide*
- *Gplus Adapter 7 for mySAP ERP Release Notes*

Migration and Upgrade Order

This section is specific to the applications and components that enable or support the G*plus* Adapter 7 for mySAP ERP, and describes migration and upgrade order from the 6.1 T-Gate product to the G*plus* Adapter 7 for mySAP ERP and other enabling software and relevant data.

To migrate to G*plus* Adapter 7 for mySAP ERP

Migrate or upgrade the 6.1 T-Gate product to the G*plus* Adapter 7 for mySAP ERP, other enabling software, and relevant data for this G*plus* Adapter in the following order:

Note: See procedures detailing this order in"Migration of 6.1 T-Gate to the Gplus Adapter 7 for mySAP ERP" on page 1663.

1. Migrate and upgrade prerequisite Genesys Framework components.
   The G*plus* Adapter 7 for mySAP ERP is designed to work with Genesys Framework 7.0, and is compatible with Genesys Framework 6.5. It is recommended that you upgrade Genesys Framework if you have an earlier version installed.

   See Part 2, "Framework Migration" on page 59 and other related Genesys documentation for more information.

2. Migrate settings from 6.1 T-Gate Configuration Manager to Genesys Configuration Manager.

   This includes migrating:

   - Server Configuration and Configuration Profiles
   - Queue Configuration
   - Multiple DN Configuration

   See "Migration of 6.1 T-Gate to the Gplus Adapter 7 for mySAP ERP" on page 1663 for these procedure details.

3. Install and configure the G*plus* Adapter 7 for mySAP ERP.

   Find information about installing and configuring the G*plus* Adapter in the *Gplus Adapter 7 for mySAP ERP Deployment Guide*. Since the G*plus* Adapter and 6.1 T-Gate use many similar configuration options, see "Changes to Configuration Options for the Gplus Adapter" on page 1656 to facilitate option migration.

4. Set up new configuration options that are available in the G*plus* Adapter 7 for mySAP ERP, but were not available in 6.1 T-Gate.

5. Migrate routing strategies.

6. Review other existing differences between the G*plus* Adapter 7 and 6.1 T-Gate:

   - Read about differences in CAD handling in this chapter.
   - Read about known problems and limitations in the product Release Notes.

Additional Information about Migration

The following information is also pertinent to the migration of 6.1 T-Gate to the G*plus* Adapter 7 for mySAP ERP.

Differences in Call Handling

There are differences between 6.1 T-Gate and the G*plus* Adapter 7 for mySAP ERP in the way calls are handled. Specifically, this section reviews the following:

- Differences in behavior when releasing held calls
- Differences in behavior when dropping conference calls

Releasing Held Calls

The following is an example of a consult call situation in which 6.1 T-Gate and the G*plus* Adapter 7 behave differently.

An agent (A) is talking to a customer (B), and makes a consult call to another agent (C). This causes the original call (A—B) to be placed on *hold*, while the consult call is *connected* (A—C).

Agent A now selects `Hang Up All Calls`.

T-Gate releases all calls (both the held call and the connected call). If the switch does not support the *hang up all* function in this situation, T-Gate will first retrieve the held call, then release it.

The G*plus* Adapter's behavior is in line with how the switch operates. If the switch supports the *hang up all* function in this situation, the Adapter will release both the held and the connected call. If the switch does not support this function, the Adapter will release the connected call, but *not* the held call. The agent will need to retrieve the held call manually and then release it.

Dropping Conference Calls

The following is an example of a conference call situation in which 6.1 T-Gate and the G*plus* Adapter 7 behave differently.

An agent (A), a customer (B), and another agent (C) are engaged in a three-party conference call.

Agent A now selects `Hang Up All Calls`.

Note: If the switch supports the behavior, Customer B or Agent C may also be able to initiate `Hang Up All Calls`.

T-Gate releases all calls and drops the conference.

The G*plus* Adapter only drops the party who requested `Hang Up All Calls`. The conference remains in effect as long as there are at least two parties still connected.

Differences in Call-Attached Data Handling

This section describes differences in call-attached data (CAD) handling when migrating from 6.1 T-Gate to the G*plus* Adapter 7 for mySAP ERP.

Call-Attached Data Representation

The SAP phone specification defines how CAD should be represented in SAP, but the gateway representation is vendor-specific. Therefore, even when SAP CAD is the same, call-attached data can be different for T-Gate and for the G*plus* Adapter 7 for mySAP ERP. For details about how the G*plus* Adapter handles CAD, please see the *Gplus Adapter 7 for mySAP ERP Deployment Guide.*

The T-Gate and Adapter representation is two level: *public* based on parsing the top-level key-value pair, and *internal* (instance numbers, additional fields).

Top-level (public) representations are compatible, but internal representations are not.

The Adapter parses top-level data based on an algorithm similar to T-Gate's, and uses a tree structure to store parsed data (internal representation) in call-attached data.

T-Gate also parses top-level data and then attaches its internal representation to the call, but this internal representation is different. It encodes instance numbers into key names on the top level of the Genesys call-attached data.

In conclusion, T-Gate's internal data representation and that of the G*plus* Adapter for mySAP ERP are *not* compatible. However, if IVR/IRD uses the *public format* for call-attached data as specified in 6.1 T-Gate and the G*plus* Adapter documentation, this call-attached data should be understandable by both applications.

Changes in Routing Strategies

If you use a routing strategy to propagate call-attached data (CAD) to SAP, and your routing strategy uses the internal T-Gate data representation, you should change this routing strategy to use the *public format* of SAP CAD without an instance number. If you require an instance number, you must use the internal Genesys representation of SAP CAD (which is not recommended unless necessary). Table 310, "Routing Strategy Change: T-Gate and Gplus Adapter," on page 1651 shows an example.

Table 310: Routing Strategy Change: T-Gate and Gplus Adapter

T-Gate	Gplus Adapter for mySAP ERP
`Update('SAPCIC_CIC_CTI__0001__CUSTANI','1234567')`	Using default options: `Update('SAPCUST_CIC_CTI__CUSTANI','1234567')`
	Change `call-attached-data: custom=SAPCIC_:` `Update('SAPCIC_CIC_CTI__CUSTANI','1234567')`

	For 7 IRD, it is possible to use the internal format to specify an instance number.
	The options `root-key` and `instance-key` are defined in the `call-attached-data` section. With default options `(root-key=SAPCAD, instance-key=_instance)`:
	`Update('SAPCIC_CIC_CTI__CUSTANI','1234567')`
	`Update('SAPCAD.CIC_CTI._instance','0001')`
	`Update('SAPCAD.CIC_CTI.CUSTANI','1234567')`

Why is Data Attached by T-Gate Not Recognized by the Gplus Adapter?

The SAP phone specification does not specify how data should be stored in the Telephony Gateway and/or the CTI system. Therefore, it is up to the Gateway to specify this information.

The public formats for all supported CAD types supported are specified in the 6.1 T-Gate documentation. However, after receiving the data, 6.1 T-Gate transforms CAD to its own internal representation, and all further actions are performed with the transformed data.

For this reason, the G*plus* Adapter cannot read CAD attached by 6.1 T-Gate. Since the internal representation format is not specified, it cannot be safely used by third-party systems.

The G*plus* Adapter also uses its internal format to store CAD, but it supports operations with public format as well. (This is the same as for 6.1 T-Gate.) Therefore, CAD which the G*plus* Adapter adds is recognized by 6.1 T-Gate.

Call-Attached Data for Consult Calls

There is a difference in how the G*plus* Adapter 7 for mySAP ERP and 6.1 T-Gate operate with call-attached data (CAD) after an SAP agent makes a consult call.

This difference is related to the fact that all CAD modifications made on the connected consult call become available to the originator at the same time, while the G*plus* Adapter *separates* CAD between the originator and consult parties.

The following use-case scenario shows this difference in more detail.

To execute this scenario, set up three SAP agents (`dnA`, `dnB`, and `dnC`) and take the following steps from SAP using transaction `SPHT`:

1. `dnA` makes a call to `dnB`.
2. `dnB` accepts the incoming call.
3. Attach some CAD to the `dnA`-to-`dnB` call.
4. `dnB` makes a consult call to `dnC`.
5. `dnC` accepts the incoming call.

   The `dnB` agent now has two calls — one *held* call (`dnA`-to-`dnB`) and one *connected* consult call (`dnB`-to-`dnC`). Data from the `dnA`-to-`dnB` call becomes available for the `dnB`-to-`dnC` call.

   Up to this point the behavior of CAD is the same for 6.1 T-Gate and the G*plus* Adapter 7. However, if you modify CAD on these two calls, the behavior will differ, as shown in the following steps.
6. Delete all CAD for the `dnB`-to-`dnC` call.

6.1 T-Gate behavior: CAD becomes *unavailable* for both calls (`dnA`-to-`dnB` and `dnB`-to-`dnC`).

The G*plus* Adapter 7 behavior: CAD is *deleted* for the `dnB`-to-`dnC` call, but is *still available* for the `dnA`-to-`dnB` call.

7. Insert some CAD to the `dnB`-to-`dnC` call.

   6.1 T-Gate behavior: new CAD becomes *available* for both calls (`dnA`-to-`dnB` and `dnB`-to-`dnC`).

   The G*plus* Adapter 7 behavior: new CAD is *available* for the `dnB`-to-`dnC` call, but is *still unavailable* for the `dnA`-to-`dnB` call.

8. Insert some CAD to the `dnA`-to-`dnB` call.

   6.1 T-Gate behavior: updated CAD is *available* for the `dnA`-to-`dnB` call, but is *unavailable* for the `dnB`-to-`dnC` call.

   The G*plus* Adapter 7 behavior: same as for 6.1 T-gate, updated CAD is *available* for the `dnA`-to-`dnB` call, but is *unavailable* for the `dnB`-to-`dnC` call.

9. `dnB` selects both calls and closes the conference.

   6.1 T-Gate behavior: CAD from *held* `dnA`-to-`dnB` call becomes *available* for all conference parties.

   The G*plus* Adapter 7 behavior: CAD from *connected* `dnB`-to-`dnC` call becomes *available* for all conference parties.

Note: You should take these differences into account when migrating to the G*plus* Adapter 7 for mySAP ERP from 6.1 T-Gate. For more details about how the G*plus* Adapter handles CAD, see“Differences in Call-Attached Data Handling” on page 1650, or the *Gplus Adapter 7 for mySAP ERP Deployment Guide* appendix.

Chapter

75 Changes in Configuration Options for the Gplus Adapter 7 for mySAP ERP

This section provides information to upgrade the configuration options of the G*plus* Adapter 7 for mySAP ERP from the previous 6.1 T-Gate release. This section only discusses changes (additions, deletions, and modifications) in the product that need specifically to be addressed during the migration process.

For information about the new features and functions in the G*plus* Adapter 7 for mySAP ERP, see the *Gplus Adapter 7 for mySAP ERP Getting Started Guide.*

This chapter contains:

Changes to Configuration Options for the Gplus Adapter

Table 311 explains the changes to the options for specific component(s) of the G*plus* Adapter 7 for mySAP ERP.

Table 311: Configuration Option Changes from 6.1 T-Gate to Gplus Adapter 7

6.1 T-Gate Server Configuration Tab	6.1 T-Gate Configuration Option	Gplus Adapter 7 Option Section	Gplus Adapter 7 Configuration Option	Comments/ Details
RFC Server Connection	R/3 Program ID	rfc-server	program-id	
	R/3 Gateway host	rfc-server	gateway-host	
	R/3 Gateway server	rfc-server	gateway-service	
	RFC Server start	N/A	N/A	The Adapter does not support RFC Server start.
	RFC traces	rfc-client	trace	The G*plus* Adapter provides additional trace settings under the `log` section of configuration options.
RFC Server Pool	Begin RFC connections simultaneously	rfc-server	N/A	The G*plus* Adapter uses a different thread pool model than T-Gate. See the `recv-thread` option in the *Gplus Adapter 7 for mySAP ERP Deployment Guide*.
	Additional reserve RFC connections	rfc-server	N/A	
	RFC Pool destruct timer (seconds)	N/A	N/A	The Adapter does not require this timer.

Table 311: Configuration Option Changes from 6.1 T-Gate to Gplus Adapter 7 (Continued)

6.1 T-Gate Server Configuration Tab	6.1 T-Gate Configuration Option	Gplus Adapter 7 Option Section	Gplus Adapter 7 Configuration Option	Comments/ Details
RFC Client Connection	R/3 Release	N/A	N/A	The Adapter does not require this option.
	R/3 GUI Mode	N/A	N/A	The Adapter does not require this option.
	R/3 Language	rfc-client	language	
	Application Host	rfc-client	ashost	
	R/3 System Number	rfc-client	sysnr	If no Load Balancing
		rfc-client	msserv	If using Load Balancing
	MS Host (only available if you choose to use Load Balancing)	rfc-client	mshost	
	R3Name (only available if you choose to use Load Balancing)	rfc-client	r3name	
	Group (only available if you choose to use Load Balancing)	rfc-client	group	
RFC Client Account	R/3 Client	rfc-client	client	
	R/3 User	rfc-client	user	
	R/3 Password	rfc-client	password	
	R/3 Telephony Server	rfc-client	gateway-id	

Table 311: Configuration Option Changes from 6.1 T-Gate to Gplus Adapter 7 (Continued)

6.1 T-Gate Server Configuration Tab	6.1 T-Gate Configuration Option	Gplus Adapter 7 Option Section	Gplus Adapter 7 Configuration Option	Comments/ Details
T-Gate General	Automatic extension registration, value = unchecked (0)	automatic-registration	auto-registration, value = none	
	Automatic extension registration, value = checked (1) Automatic registration of all extensions in the R/3 Telephony Server, value = selected (1)	automatic-registration	auto-registration, value = all	
	Automatic extension registration, value = checked (1) Automatic registration of active extensions in R/3 Telephony Server, value = selected (1)	automatic-registration	auto-registration, value = active	
	Registration update timer (seconds)	automatic-registration	register-timer	
	Un-registration update timer (seconds)	automatic-registration	deregister-timer	
	Notify incoming calls	rfc-client	notify	

Table 311: Configuration Option Changes from 6.1 T-Gate to Gplus Adapter 7 (Continued)

6.1 T-Gate Server Configuration Tab	6.1 T-Gate Configuration Option	Gplus Adapter 7 Option Section	Gplus Adapter 7 Configuration Option	Comments/ Details
T-Server	T-Server Host	See Comments/ Details	See Comments/ Details	T-Server is defined in Genesys Configuration Manager on the `Connections` tab for the Adapter.
	T-Server TCP/IP Port	See Comments/ Details	See Comments/ Details	
	T-Server Username	See Comments/ Details	See Comments/ Details	
	T-Server Password	See Comments/ Details	See Comments/ Details	
Switch	Switch type	See Comments/ Details	See Comments/ Details	Switch type is based on the T-Server.
	Leading string inbound	call-number-translator	inbound-prefix	
	Leading string outbound	call-number-translator	outbound-prefix	
	Extension length	call-number-translator	extension-length	
	Specific configuration (Advanced button)	N/A	N/A	CTI driver handles this automatically.

Table 311: Configuration Option Changes from 6.1 T-Gate to Gplus Adapter 7 (Continued)

6.1 T-Gate Server Configuration Tab	6.1 T-Gate Configuration Option	Gplus Adapter 7 Option Section	Gplus Adapter 7 Configuration Option	Comments/ Details
Optimization	Country code, Pre-code	call-number-translator	idd	The G*plus* Adapter handles call optimization options in a different way than 6.1 T-Gate. You can find more information about call number optimization support of the Adapter in the configuration options under the `call-number-translator` section. See the *Gplus Adapter 7 for mySAP ERP Deployment Guide* for details.
	Country code, Value	call-number-translator	country-code	
	Area code, Pre-code	call-number-translator	ndd	
	Area code, Value	call-number-translator	area-code	
	Base number	call-number-translator	base-number	
	Incoming call optimization	call-number-translator	inbound-optimization	
	Outgoing call optimization	call-number-translator	outbound-optimization	

Table 312 shows new configuration options available in the G*plus* Adapter 7 for mySAP ERP.

Table 312: New Configuration Options for the Gplus Adapter 7

Gplus Adapter 7 Option Section	Gplus Adapter 7 Configuration Option	Comments/Details
rfc-client	type	= `3` for R/3
	trace	RFC Client trace
	codepage	The given codepage is to be used for this connection (default is `1100`) or is set by the `SAP_CODEPAGE` environment variable). Useful if the SAP GUI is started with codepage other than `1100`.
	retry-count	Resubmit Client requests.
rfc-server	listen-timeout	

Table 312: New Configuration Options for the Gplus Adapter 7 (Continued)

Gplus Adapter 7 Option Section	Gplus Adapter 7 Configuration Option	Comments/Details
	reconnect-timeout	
log	verbose	Specifies common Genesys log options. Additional options are described in the *Genesys Framework 7 Configuration Options Reference Manual*.
	segment	
	expire	
	buffering	
	all	
	print-attributes	
call-number-translator	outbound-remove	Hard-coded to `( )+` in T-Gate
	outbound-idd-substitute	Hard-coded to `false` in T-Gate
automatic-registration	register-on-demand	This is hard-coded to `true` in 6.1 T-Gate. It is now a configurable option in the G*plus* Adapter.
telephony	blind-transfer	These options specify telephony settings. See the *Gplus Adapter 7 for mySAP ERP Deployment Guide* for details. These functions were hard-coded in T-Gate, but are now configurable in the G*plus* Adapter.
	sps-agentlogin-tout	
	sps-setworkmode-tout	
	sps-default-tout	
	sps-register-tout	
	workready-mapping	
	cti-log	

Table 312: New Configuration Options for the Gplus Adapter 7 (Continued)

Gplus Adapter 7 Option Section	Gplus Adapter 7 Configuration Option	Comments/Details
genmodel	enable-log-user-data	These options control the switch abstraction layer - CTI driver (genmodel) behavior. See the *Gplus Adapter 7 for mySAP ERP Deployment Guide* for details. These functions were hard-coded in T-Gate, but are now configurable in the G*plus* Adapter.
	answer-call-delay	
	release-call-on-auto-logout	
	agent-substitute	
	agent-logout-control	
	request-timeout	
	use-pending-workmode	
	delete-call-timeout	
call attached data	cic-clipboard	Specifies options for Call Attached Data. See the *Gplus Adapter 7 for mySAP ERP Deployment Guide* for details. These functions were hard-coded in T-Gate, but are now configurable in the G*plus* Adapter.
	keyvalue	
	custom	
	logsys-option	
	logsys-value	

Chapter

76 Migration Procedures

This chapter discusses the migration procedures for release 6.1 of T-Gate to the G*plus* Adapter 7 for mySAP ERP.

This chapter contains:

Migration of 6.1 T-Gate to the Gplus Adapter 7 for mySAP ERP

The migration procedures for release 6.1 of T-Gate to the G*plus* Adapter 7 for mySAP ERP are discussed in this section.

Note: Upgrade Genesys Framework and other prerequisite Genesys components, if necessary, as described in the Step 1 of"Migration and Upgrade Order" on page 1648.

Follow these migration procedures to move 6.1 T-Gate settings to the G*plus* Adapter 7 for mySAP ERP settings:

1. Update Contact Center configuration in Genesys Configuration Manager as needed.
   a. Migrate Multiple DN Configuration

      For each multi-DN teleset configuration, create a Place object in Genesys Configuration Manager which contains the corresponding ACD Position and Extension links. See "Configuring Places for T-Gate Multi-DN Telesets" on page 1665.
   b. Migrate Queue Configuration

You need to create Person and Agent Group objects in Genesys Configuration Manager to enable Contact Center functionality. See "Migrating Queue Configuration" on page 1667.

2. Migrate Server Configuration and Configuration profiles.

   6.1 T-Gate Configuration Manager supports multiple configuration profiles which correspond to Application Objects in Genesys Configuration Manager. For each profile configured in T-Gate Configuration Manager, you should create a separate Application Object in Genesys Configuration Manager, and move all options appropriately. In 6.1 T-Gate, you should activate the profile from the T-Gate Configuration Manager to start the execution thread. With Genesys, however, you start a separate instance of the G*plus* Adapter.

   So, to migrate Server Configuration and Configuration profiles, you will need to:

   a. Create a Host Object in Genesys Configuration Manager.
   b. Import the Application template for the G*plus* Adapter 7 for mySAP ERP.
   c. Create and configure an Application Object in Genesys Configuration Manager for each Configuration profile from 6.1 T-Gate.
   d. Install a separate Adapter instance for each Application Object in Configuration Manager. On startup, the G*plus* Adapter reads its settings from the appropriate Application Object.

   See "Installing the G*plus* Adapter," in the *G*plus *Adapter 7 for mySAP ERP Deployment Guide* for instructions to help you with the steps above.

3. Migrate 6.1 T-Gate configuration options to the G*plus* Adapter 7 for mySAP ERP configuration options.

   UseTable 311, "Configuration Option Changes from 6.1 T-Gate to Gplus Adapter 7," on page 1656, and "Configuring the G*plus* Adapter," in the *G*plus *Adapter 7 for mySAP ERP Deployment Guide* to gather the information you need to do this.

4. Set up new configuration options that are available in the G*plus* Adapter 7 for mySAP ERP, but were not available in 6.1 T-Gate.

   SeeTable 312, "New Configuration Options for the Gplus Adapter 7," on page 1660. Also see "Configuring the G*plus* Adapter," in the *G*plus *Adapter 7 for mySAP ERP Deployment Guide* for full descriptions of these options. Take note of any configuration options that you must set for the Adapter to function properly. You may accept the default settings on all other options.

5. Migrate routing strategies, if applicable.

Configuring Places for T-Gate Multi-DN Telesets

As for 6.1 T-Gate, you should configure only one (primary) DN in SAP so that the SAP configuration does not need to be changed. On the Genesys side, you should define a Place object containing all Telesets' DNs (ACD Positions and Extensions) as follows:

1. Start and log in to Genesys Configuration Manager.
2. Select the `Places` folder under `Resources`.
3. Select `File` > `New` > `Place`.

   The `New Place` dialog box opens as shown in Figure 58 on page 1665.

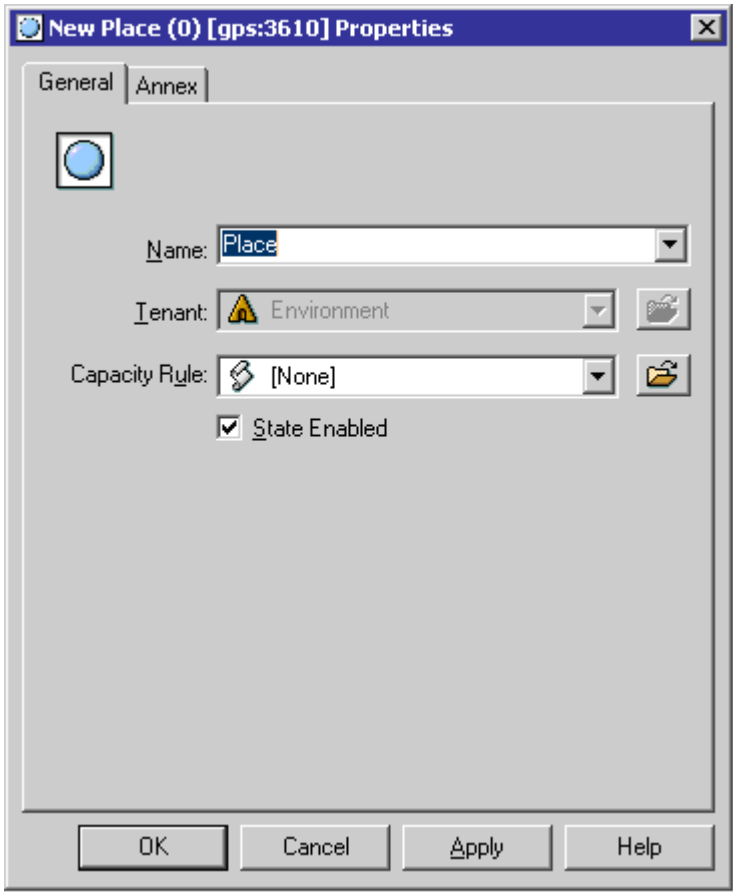

Figure 58: New Place Dialog Box

4. Enter a unique name in the `Name` field and click `OK`.
5. In Configuration Manager, double-click the created Place object to open it.
6. Select `File` > `New` > `Shortcut to DN`.

   The `Browse DN` dialog box opens as shown in Figure 59.

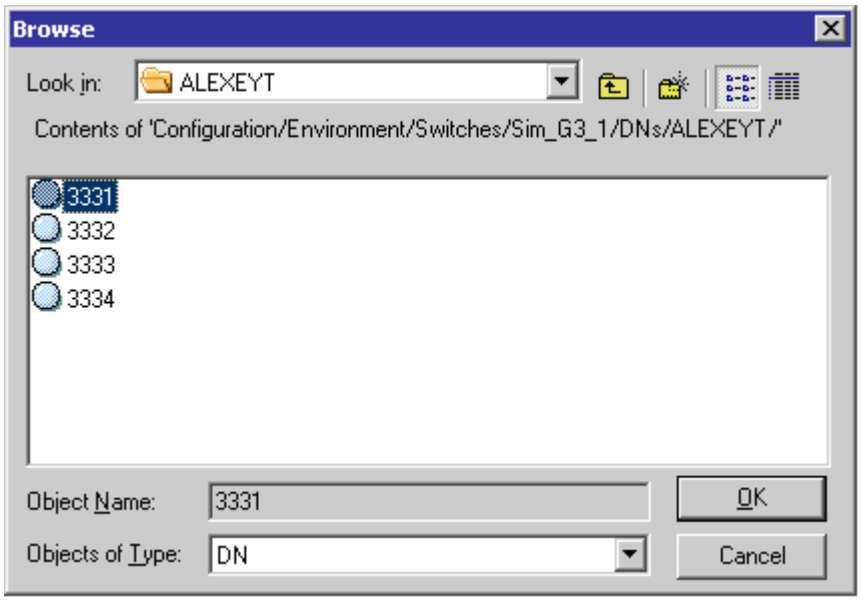

Figure 59: Browse DN

7. Select ACD positions and or extensions to be added for this teleset (you can do multiple selection using the `Ctrl` key and mouse), then click `OK`.
8. Verify that the created Place contains correct extensions and positions. For details about extensions and ACD positions please see the T-Server and Switch vendor documentation.

In example shown in Figure 60 on page 1667, if SAP defines `3331` as an extension, it will ask to register the extension, and the Adapter will actually register *two* DNs: ACD position `3431` and Extension `3331`.

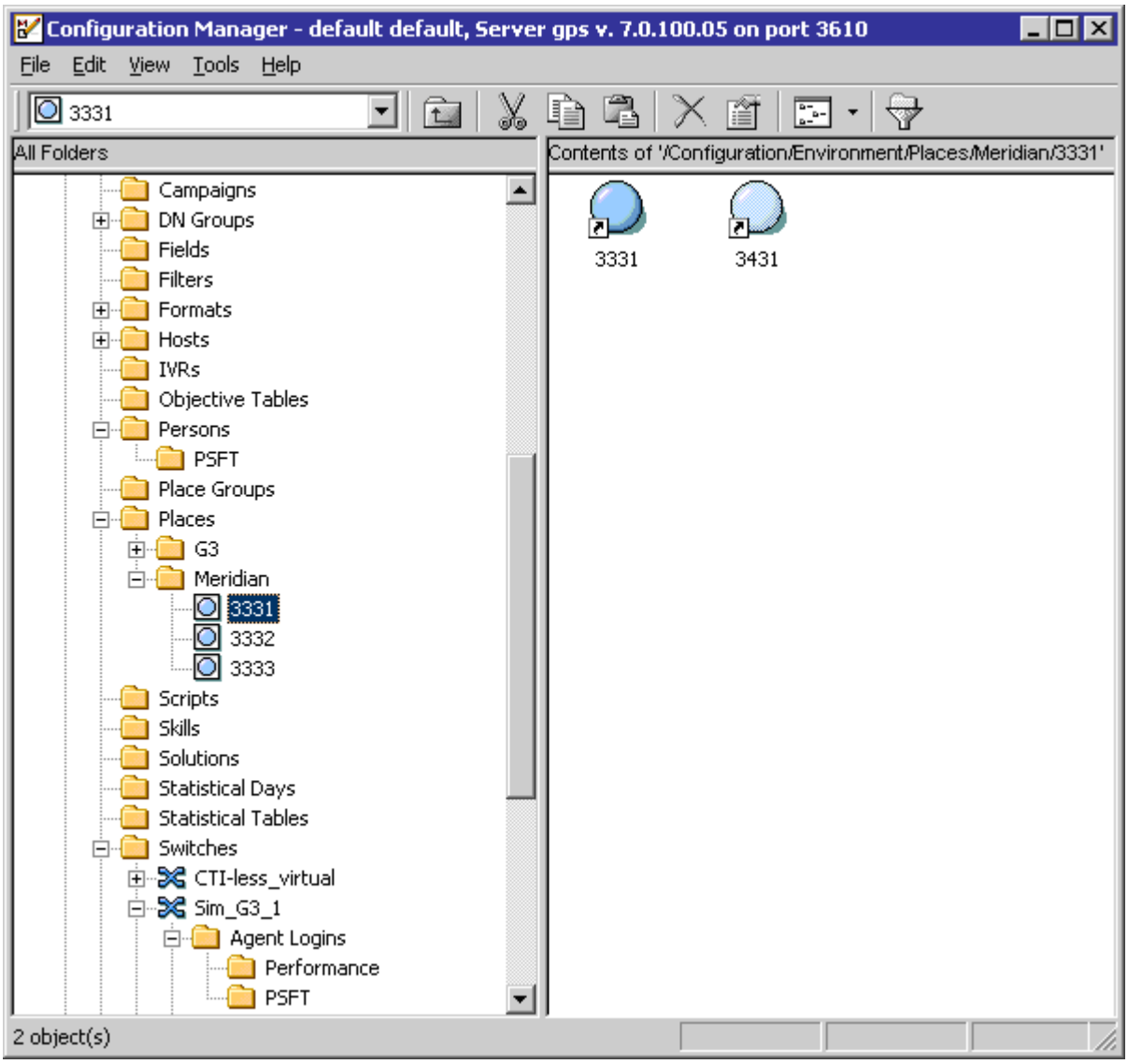

Figure 60: Mapping of SAP Extension to Genesys DNs

Migrating Queue Configuration

To define Queues available to log into, you need to complete the following steps:

1. Start and log in to Genesys Configuration Manager.
2. Select the `Persons` folder under `Resources`.
3. Select `File` > `New` > `Person`.

   The `New Person` dialog box opens as shown in Figure 61 on page 1668.

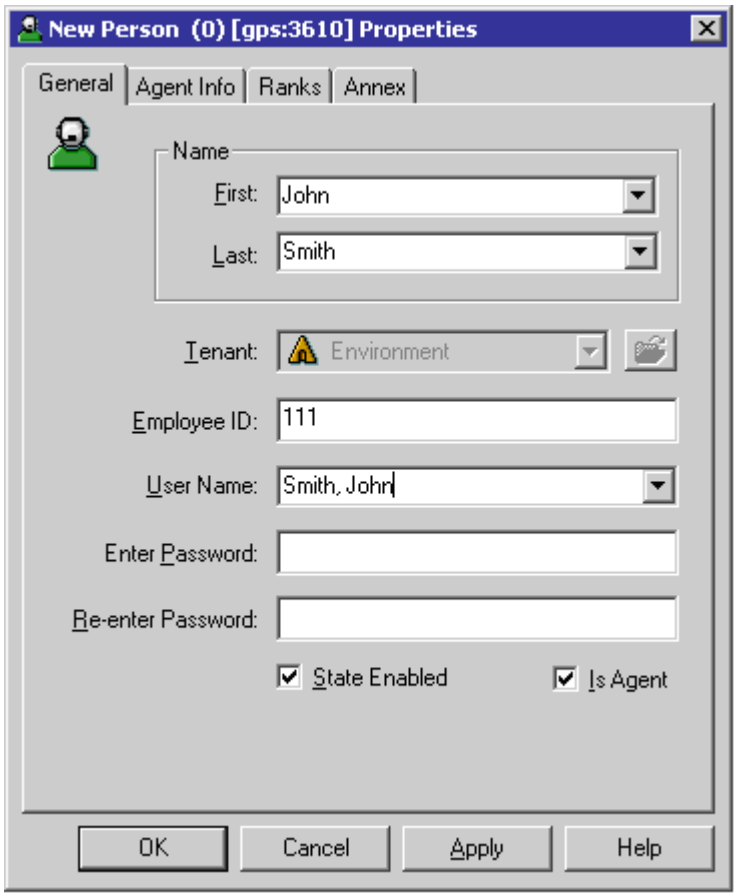

Figure 61: New Person Dialog Box

4. On the `General` tab, enter the person's name in the `First` and `Last` Name fields.
5. Enter a unique user name in the `User Name` field.
6. Select the `Agent Info` tab.
7. Select one of the previously created places as the `Default` place as shown in Figure 62 on page 1669 and click `OK`.

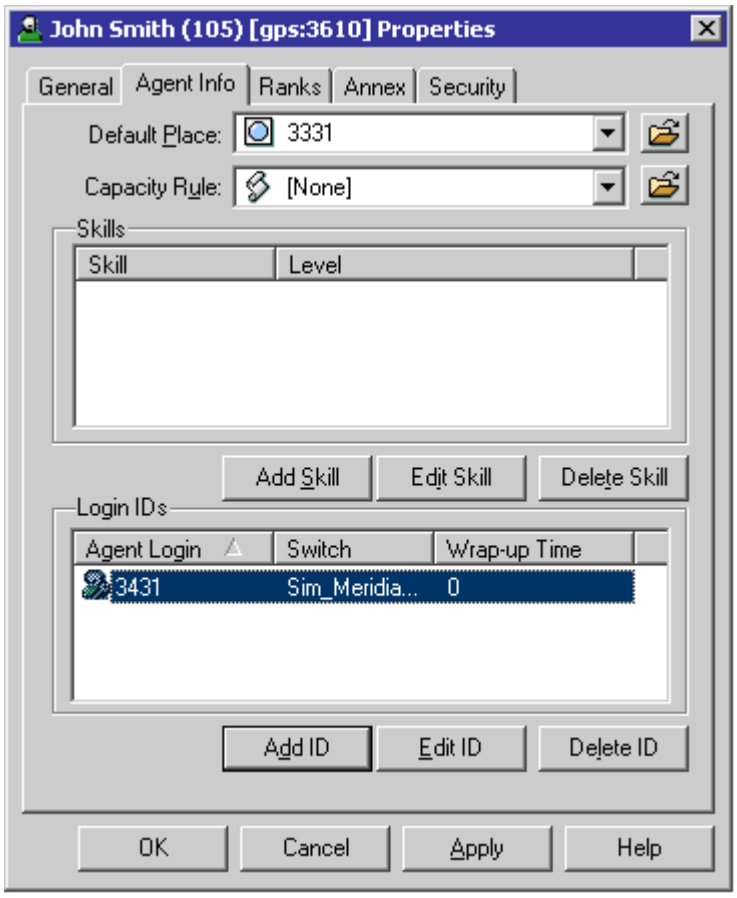

Figure 62: Agent Info Tab

8. Repeat Steps 3 through 7 for each person/place.
9. In Configuration Manager, select the `Agent Groups` folder under `Resources`.
10. Select `File` > `New` > `Agent Group`.

    The `New Agent Group` dialog box opens as shown in Figure 63 on page 1670.

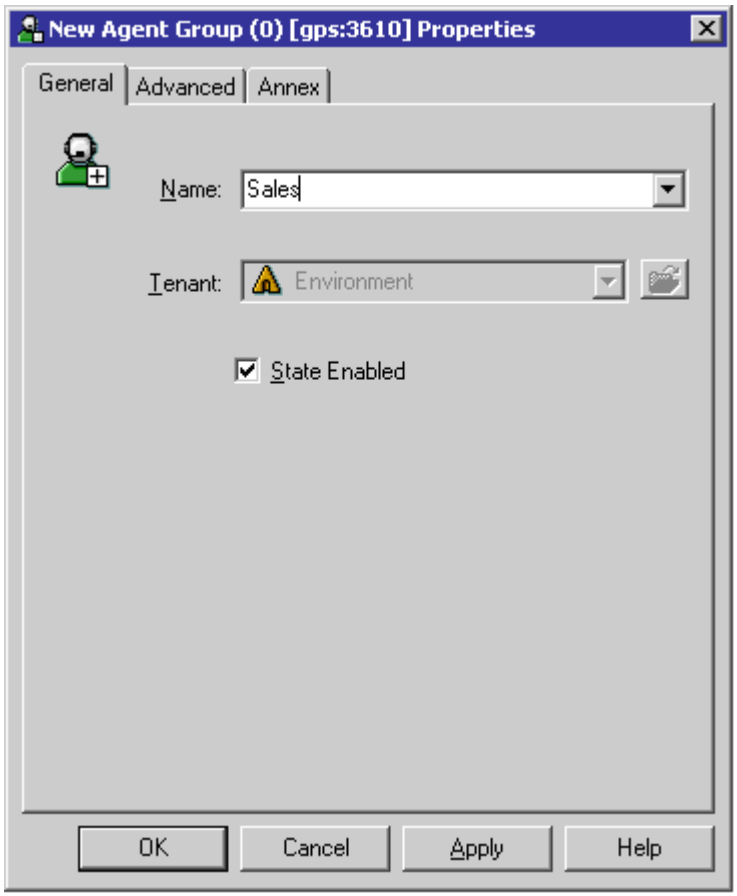

Figure 63: New Agent Group Dialog Box

11. On the `General` tab, enter a unique agent group name in the `Name` field.
12. Select the `Advanced` tab.
13. Add available Queues to the list of `Origination DNs` as shown in Figure 64 on page 1671 and click `OK`.

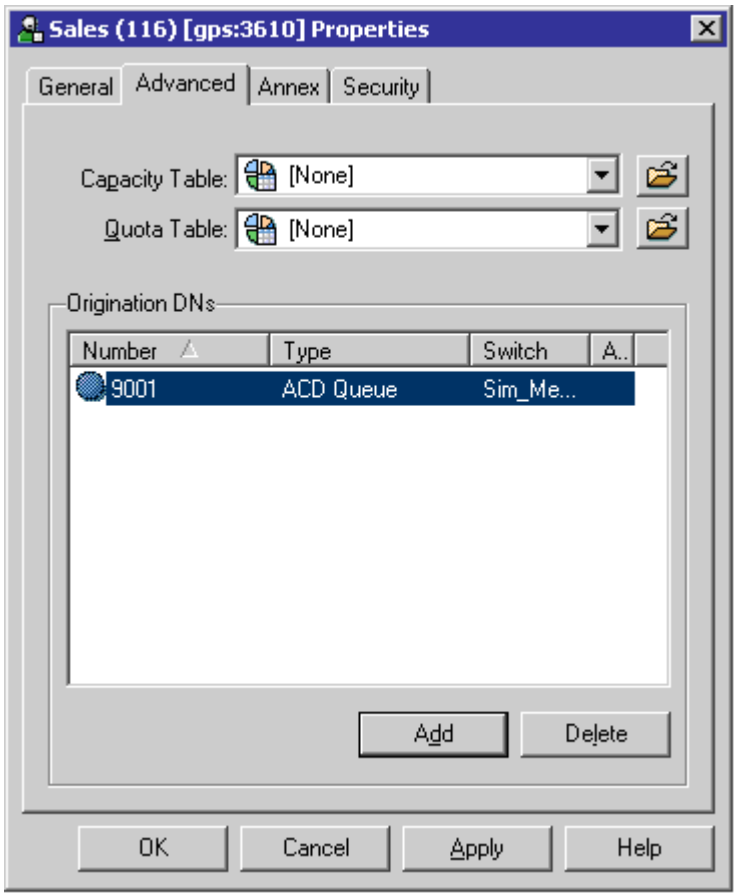

Figure 64: Advanced Tab

14. In Configuration Manager, double-click the created Agent Group object to open it.
15. Select `File` > `New` > `Shortcut to Agent`.

    The `Browse` dialog box opens.

Genesys

Part

25 The Gplus Adapter for Siebel CRM Migration

This section describes the preliminary migration procedures and the migration order for the G*plus* Adapter for Siebel CRM. It contains the following chapters:

- Chapter 77, “Introduction to the Gplus Adapter for Siebel CRM Migration,” on page 1675 discusses the preliminary migration procedures and the migration order for migrating from version 6.5.2 to 7.0, from version 7.0 to 7.1, from version 7.1 to 7.2, from 7.2 to 7.5, and from 7.5 to 8.0.
- Chapter 78, “Changes in Gplus Adapter for Siebel CRM,” on page 1679 discusses changes (additions, deletions, and modifications) in the product that need to be addressed during the migration process.
- Chapter 79, “Migration Procedures,” on page 1689 discusses the migration procedures for 6.x to 7.0 migration, for 7.0 to 7.1 migration, for 7.1 to 7.2 migration, for 7.2 to 7.5 migration, and for 7.5 to 8.0 migration.

Chapter

77 Introduction to the Gplus Adapter for Siebel CRM Migration

This chapter discusses the preliminary migration procedures and the migration order for migrating from version 6.5.2 to 7.0, from version 7.0 to 7.1, from version 7.1 to 7.2, from version 7.2 to 7.5, and from version 7.5 to 8.0.

There is one main section in this chapter:

Preliminary Migration Procedures

Note: If you want to upgrade your operating system before the migration of your Genesys product, contact Professional Services.

The migration process includes these preliminary procedures for the G*plus* Adapter for Siebel CRM:

1. Review Chapter 1, "Migration Roadmap," on page 41 of this guide.
2. Examine the component changes for the G*plus* Adapter in the next chapter, Chapter 78, "Changes in Gplus Adapter for Siebel CRM," on page 1679 under the heading, "Component Changes for the Gplus Adapter for Siebel CRM" on page 1680.

Notes:

- Please note that these tables only discuss changes that directly affect the migration of this product.

- For complete information about "What's New in This Release" of the G*plus* Adapter 7 for Siebel 7 and how the 7.0 version functions, please see the current product's User Guide.
- For complete information about "What's New in This Release" of the G*plus* Adapter 7.1 for Siebel 7 and how the 7.1 version functions, please see the current product's User Guide.
- For complete information about "What's New in This Release" of the G*plus* Adapter 7.2 for Siebel CRM and how the 7.2 version functions, please see the current product's User Guide.
- For complete information about "What's New in This Release" of the G*plus* Adapter 7.5 for Siebel CRM and how the 7.5 version functions, please see the current product's User Guide.
- For complete information about "What's New in This Release" of the G*plus* Adapter 8.0 for Siebel CRM and how the 8.0 version functions, please see the current product's User Guide.
- For a complete list of documentation relevant to the migration of this product, see "Reference Materials".

3. Other Genesys products (T-Servers, and so on) required by the Adapter must be properly licensed. Review the licensing requirements for the Genesys products. See Chapter 2, "Licensing Migration," on page 47 in this guide.
4. See the *Genesys Licensing Guide* for more information about Licensing.
5. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.

Reference Materials

- *Genesys Licensing Guide*
- *Genesys Interoperability Guide*

For version 7.0 of the Adapter:

- *Gplus Adapter 7 for Siebel 7 User's Guide*
- *Gplus Adapter 7 for Siebel 7 Deployment Guide*
- *Gplus Adapter 7 for Siebel 7 Developer's Guide*

For version 7.1 of the Adapter:

- *Gplus Adapter 7.1 for Siebel 7 User's Guide*
- *Gplus Adapter 7.1 for Siebel 7 Deployment Guide*
- *Gplus Adapter 7.1 for Siebel 7 Developer's Guide*

For version 7.2 of the Adapter:

- *Gplus Adapter 7.2 for Siebel CRM User's Guide*
- *Gplus Adapter 7.2 for Siebel CRM Deployment Guide*
- *Gplus Adapter 7.2 for Siebel CRM Developer's Guide*

For version 7.5 of the Adapter:

- *Gplus Adapter 7.5 for Siebel CRM User's Guide*
- *Gplus Adapter 7.5 for Siebel CRM Deployment Guide*
- *Gplus Adapter 7.5 for Siebel CRM Developer's Guide*

For version 8.0 of the Adapter:

- *Gplus Adapter 8.0 for Siebel CRM User's Guide*
- *Gplus Adapter 8.0 for Siebel CRM Deployment Guide*
- *Gplus Adapter 8.0 for Siebel CRM Developer's Guide*

Genesys

Chapter

78 Changes in Gplus Adapter for Siebel CRM

This section provides information to upgrade the components and configuration options of the G*plus* Adapter for Siebel CRM from release 6.5.2 to 7.0, from release 7.0 to 7.1, from release 7.1 to 7.2, from release 7.2 to 7.5, and from release 7.5 to 8.0. This section only discusses changes (additions, deletions, and modifications) in the product that need to be addressed during the migration process.

The following documents for the 7.0 release contain a comprehensive list of changes from 6.5.2 to 7.0:

- *Gplus Adapter 7 for Siebel 7 User's Guide*
- *Gplus Adapter 7 for Siebel 7 Deployment Guide*
- *Gplus Adapter 7 for Siebel 7 Developer's Guide*
- *70gp_supp_sl7.html*

The following documents for the 7.1 release contain a comprehensive list of changes from 7.0 to 7.1:

- *Gplus Adapter 7.1 for Siebel 7 User's Guide*
- *Gplus Adapter 7.1 for Siebel 7 Deployment Guide*
- *Gplus Adapter 7.1 for Siebel 7 Developer's Guide*
- *71gp_supp_sl7.html*

The following documents for the 7.2 release contain a comprehensive list of changes from 7.1 to 7.2:

- *Gplus Adapter 7.2 for Siebel CRM User's Guide*
- *Gplus Adapter 7.2 for Siebel CRM Deployment Guide*
- *Gplus Adapter 7.2 for Siebel CRM Developer's Guide*
- *72gp_supp_slcrm.html*

The following documents for the 7.5 release contain a comprehensive list of changes from 7.2 to 7.5:

- *Gplus Adapter 7.5 for Siebel CRM User's Guide*
- *Gplus Adapter 7.5 for Siebel CRM Deployment Guide*
- *Gplus Adapter 7.5 for Siebel CRM Developer's Guide*
- *75gp_supp_slcrm.html*

The following documents for the 8.0 release contain a comprehensive list of changes from 7.5 to 8.0:

- *Gplus Adapter 8.0 for Siebel CRM User's Guide*
- *Gplus Adapter 8.0 for Siebel CRM Deployment Guide*
- *Gplus Adapter 8.0 for Siebel CRM Developer's Guide*
- *80gp_supp_slcrm.html*

The sections in this chapter are:

Component Changes for the Gplus Adapter for Siebel CRM

Table 313 lists the elements of the G*plus* Adapter for Siebel 7 that changed from version 6.5.2 to 7.0. This table maps 6.5.2 names to 7.0/7.1 names and provides useful guidance to those who must migrate from the 6.5.2 version to the 7.0 version.

For information about all the new features and functions in the G*plus* Adapter for Siebel 7, see the *Gplus Adapter 7 for Siebel 7 User's Guide*, or the *Gplus Adapter 7.1 for Siebel 7 User's Guide*.

Table 313: Configuration Changes from 6.5.2 Maintenance Release to 7.0/7.1

6.5.2 Configuration Component/ Feature	7.0/7.1 Configuration Component/ Feature	Comments/Details
Configuration Component	Configuration Synchronization Component	Name change implements a more descriptive component name.
Outbound Server Component	Campaign Synchronization Component	Name change implements a more descriptive component name. Note: The Outbound Contact Server (OCS) is a separate Genesys product that supports this G*plus* Adapter component.

Table 314 lists the elements of the G*plus* Adapter for Siebel CRM that changed from version 7.1 to 7.2. This table maps 7.1 terms to 7.2 terms and provides useful guidance to those who must migrate from the 7.1 version to the 7.2 version.

Table 314: Configuration Component Changes from Version 7.1 to Version 7.2

7.1 Configuration Component/ Feature	7.2 Configuration Component/ Feature	Comments/Details
G*plus* Adapter for Siebel 7 Voice.	G*plus* Adapter for Siebel CRM Voice.	Name changed.
G*plus* Adapter for Siebel 7 Configuration Synchronization.	G*plus* Adapter for Siebel CRM Configuration Synchronization.	Name changed.
G*plus* Adapter for Siebel 7 Campaign Synchronization.	G*plus* Adapter for Siebel CRM Campaign Synchronization.	Name changed.
G*plus* Adapter for Siebel 7 Siebel eMail.	G*plus* Media Routing for Siebel CRM.	Name changed to reflect the additional routing functionality and ability to interact with any media item and not just to Siebel eMail.
G*plus* Adapter for Siebel 7 Multimedia.		Component removed and replaced by G*plus* Adapter for Siebel CRM Multimedia and G*plus* UCS Gateway for Siebel CRM.
	G*plus* Adapter for Siebel CRM Multimedia.	New component.
	G*plus* Communication Server for Siebel CRM.	New component.
	G*plus* UCS Gateway for Siebel CRM.	New component.

For information about all the new features and functions in the G*plus* Adapter for Siebel CRM, see the current product's Deployment Guide.

Table 315 lists the elements of the G*plus* Adapter for Siebel CRM that changed from version 7.2 to 7.5. This table maps 7.2 terms to 7.5 terms and provides useful guidance to those who must migrate from the 7.2 version to the 7.5 version.

Table 315: Configuration Component Changes from Version 7.2 to Version 7.5

7.2 Configuration Component/ Feature	7.5 Configuration Component/ Feature	Comments/Details
G*plus* Adapter for Siebel CRM Voice.	G*plus* Adapter for Siebel CRM Voice.	No changes.
G*plus* Adapter for Siebel CRM Configuration Synchronization.	G*plus* Adapter for Siebel CRM Configuration Synchronization.	No changes.
G*plus* Adapter for Siebel CRM Campaign Synchronization.	G*plus* Adapter for Siebel CRM Campaign Synchronization.	No changes.
G*plus* Media Routing for Siebel CRM.	G*plus* Media Routing for Siebel CRM.	No changes
G*plus* Adapter for Siebel CRM Multimedia.	G*plus* Adapter for Siebel CRM Multimedia.	No changes
G*plus* Communication Server for Siebel CRM.	G*plus* Communication Server for Siebel CRM.	No changes
G*plus* UCS Gateway for Siebel CRM.	G*plus* UCS Gateway for Siebel CRM.	No changes

For information about all the new features and functions in the G*plus* Adapter for Siebel CRM, see the current product's Deployment Guide.

Table 316 lists the elements of the G*plus* Adapter for Siebel CRM that changed from version 7.5 to 8.0. This table maps 7.5 terms to 8.0 terms and provides

useful guidance to those who must migrate from the 7.5 version to the 8.0 version.

Table 316: Configuration Component Changes from Version 7.5 to Version 8.0

7.5 Configuration Component/ Feature	8.0 Configuration Component/ Feature	Comments/Details
G*plus* Adapter for Siebel CRM Voice.	G*plus* Adapter for Siebel CRM Voice.	No changes.
G*plus* Adapter for Siebel CRM Configuration Synchronization.	G*plus* Adapter for Siebel CRM Configuration Synchronization.	No changes.
G*plus* Adapter for Siebel CRM Campaign Synchronization.	G*plus* Adapter for Siebel CRM Campaign Synchronization.	The component is supplied from the 7.5 release. For more details, see the *G*plus *Adapter for Siebel CRM Deployment Guide*.
G*plus* Media Routing for Siebel CRM.	G*plus* Media Routing for Siebel CRM.	No changes.
	G*plus* Open Media Server for Siebel CRM.	New component for Media Routing. It is a replacement for G*plus* Communication Server and is used for routing open media items from Siebel.
G*plus* Adapter for Siebel CRM Multimedia.	G*plus* Adapter for Siebel CRM Multimedia.	No changes.
G*plus* Communication Server for Siebel CRM.	G*plus* Communication Server for Siebel CRM.	No changes.
G*plus* UCS Gateway for Siebel CRM.	G*plus* UCS Gateway for Siebel CRM.	No changes.
	G*plus* iWD Routing for Siebel CRM.	New Component.

For information about all the new features and functions in the G*plus* Adapter for Siebel CRM, see the current product's Deployment Guide.

Changes to the Configuration Options

The configuration options for specific components of the G*plus* Adapter for Siebel CRM are described in full detail in the current product's Deployment Guide.

- For changes to the configuration options when migrating from release 6.5.2 to 7.0, refer also to the HTML file (`70gp_supp_sl7.html`) that supplements this G*plus* Adapter migration section in this guide. This HTML file is supplied with the G*plus* Adapter distribution DVD for release 7.0.
- For changes to the configuration options when migrating from release 7.0 to 7.1, refer also to the HTML file (`71gp_supp_sl7.html`) that supplements this G*plus* Adapter migration section in this guide. This HTML file is supplied with the G*plus* Adapter distribution DVD for release 7.1.
- For changes to the configuration options when migrating from release 7.1 to 7.2, refer also to the HTML file (`72gp_supp_slcrm.html`) that supplements this G*plus* Adapter migration section in this guide. This HTML file is supplied with the G*plus* Adapter distribution DVD for release 7.2.
- For changes to the configuration options when migrating from release 7.2 to 7.5, refer also to the HTML file (`75gp_supp_slcrm.html`) that supplements this G*plus* Adapter migration section in this guide. This HTML file is supplied with the G*plus* Adapter distribution DVD for release 7.5.
- For changes to the configuration options when migrating from release 7.5 to 8.0, refer also to the HTML file (`80gp_supp_slcrm.html`) that supplements this G*plus* Adapter migration section in this guide. This HTML file is supplied with the G*plus* Adapter distribution DVD for release 8.0.

Architectural Changes

The architecture of the 7.2 driver components was significantly changed from that of the 7.1 components.

- In version 7.1 and earlier, the Siebel Communication Server loads and starts the G*plus* Adapter.

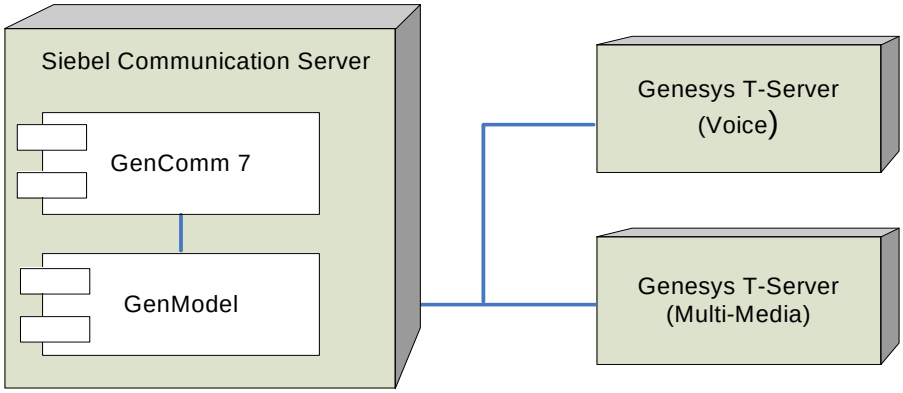

Figure 65: Overview of 7.1 Driver Components' Architecture

- In version 7.2, the Genesys Communication Server (GenCommSrvr) runs the G*plus* Adapter implementation libraries (GenComm7 and GenModel). The implementation libraries are installed in the GenCommServ folder. The Siebel Communication Server interacts with the G*plus* Adapter through the Genesys Communication Driver (GenCommDrv) dynamic library.

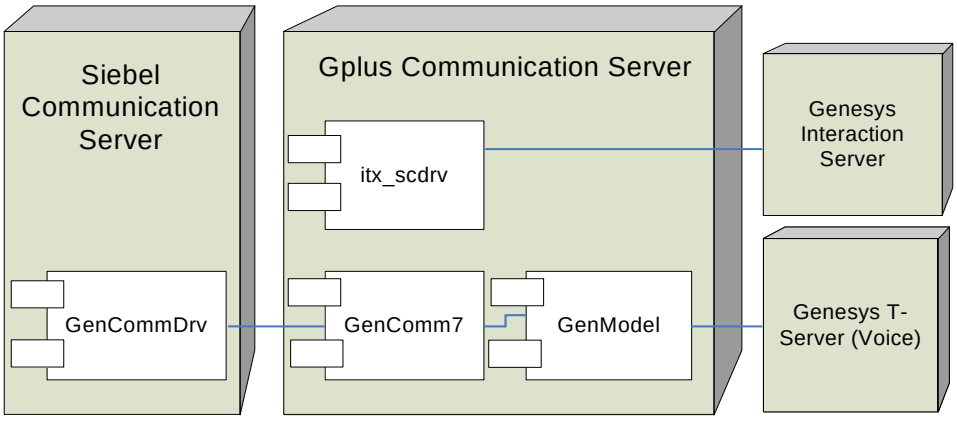

Figure 66: Overview of 7.2 Driver Components' Architecture

The architecture of the 8.0 driver components was changed from that of the 7.2 and 7.5 components.

- In version 8.0, the Genesys Communication Server (GenCommSrvr) loads and runs the Universal Communications (UniComm) library, which in turn loads and runs the implementation libraries—Multimedia (itx_scdrv) and Voice (GenComm and GenModel).

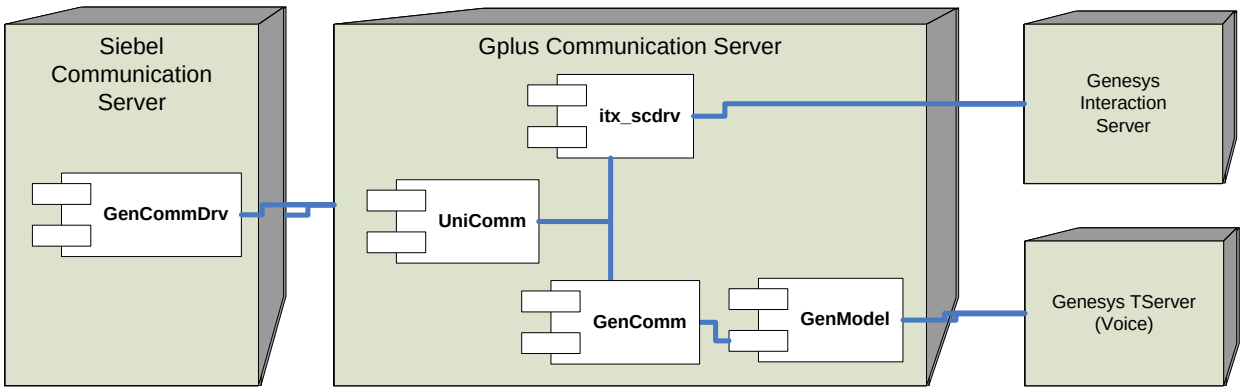

Figure 67: Overview of 8.0 Driver Components' Architecture

iWD integration was added as a new component named Gplus iWD Routing for Siebel CRM. Figure 68 displays the architecture for the Gplus iWD Routing for Siebel CRM.

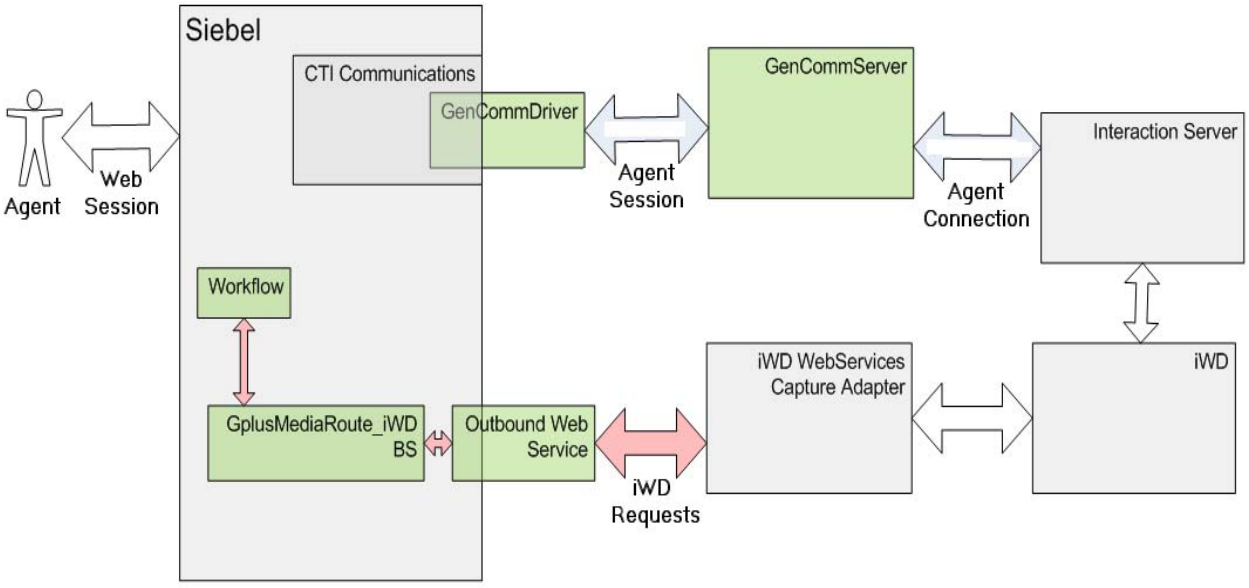

Figure 68: Overview of Gplus iWD Routing for Siebel CRM Architecture

Chapter

79 Migration Procedures

This chapter discusses the migration procedures for release 6.x to 7.0 migration, for release 7.0 to 7.1 migration, for release 7.1 to 7.2 migration, for release 7.2 to 7.5 migration, and for release 7.5 to 8.0 migration.

The sections in this chapter are:

Migration Procedures for the Gplus Adapter for Siebel CRM

Siebel CRM 6.5.2 to 7.0; 7.0 to 7.1; 7.1 to 7.2; 7.2 to 7.5; or 7.5 to 8.0

The migration procedures for the G*plus* Adapter for Siebel CRM from 6.5.2 to 7.0; from 7.0 to 7.1; from 7.1 to 7.2; or from 7.2 to 7.5; or from 7.5 to 8.0 are discussed in this section.

Prior to Adapter migration, you must complete the migration of all systems required for this new version of the Adapter, including any related licensing procedures. This is explained below under the heading, “Prerequisite Migration for the Gplus Adapter for Siebel CRM” on page 1690.

The migration of the G*plus* Adapter for Siebel CRM version 6.5.2 to 7.0; from 7.0 to 7.1; from 7.1 to 7.2; or from 7.2 to 7.5; or from 7.5 to 8.0 is not complicated in itself. To summarize, you uninstall the previous version of the Adapter and install the new version according to the instructions in the current

product's Deployment Guide. The part of the migration process that is harder to address is the replication of existing customizations to the existing G*plus* Adapter.

Customizations of the Siebel and G*plus* Adapter products can take many forms, so it is impossible to provide specific instructions for re-implementing the particular customizations that your organization has performed.

However, this section does describe methods that may help migrate some customization work.

Prerequisite Migration for the Gplus Adapter for Siebel CRM

Complete these preliminary procedures before starting your migration of the G*plus* Adapter for Siebel CRM:

1. License the Genesys products required to support your implementation of the G*plus* Adapter for Siebel CRM.

   Licensing is addressed in these documents:

   - *Genesys Licensing Guide*
   - Chapter 2, "Licensing Migration," on page 47 of this guide

2. Migration of Framework 6.5 to 7.0, 7.0 to 7.1, 7.1 to 7.2, or 7.2 to 7.5, or 7.5 to 8.0 as necessary.

   See the first chapter about migrating the G*plus* Adapter, Chapter 77, "Introduction to the Gplus Adapter for Siebel CRM Migration," on page 1675.

3. Upgrading other products (including Genesys products) that are required for your implementation of the G*plus* Adapter.

   The G*plus* Adapter system requirements for other Genesys products will vary depending on the G*plus* Adapter components and features that you intend to install. Refer to the system requirements documentation in the *Gplus Adapter for Siebel CRM Deployment Guide* and to the product's Release Advisory.

Migration Procedures

When all the prerequisites for migration of the G*plus* Adapter for Siebel CRM are all in place, the fundamental migration process will include the following phases:

- Backup of all previous version files
- Modifying the definition (.def) file for the migration
- Identifying customizations other than those in the .def file
- Uninstalling the previous version
- Installing the new version with the migrated .def file
- Re-implementing customizations during or after installation of the G*plus* Adapter for Siebel CRM.

Note: Because customizations of the Siebel and the G*plus* Adapter products can take many and varied forms, it is impossible for Genesys Laboratories to provide specific instructions for re-implementing all of your existing customizations of these products on your new version of the Adapter.

Chapter 79 on page 1689 provides some fundamental information about migrating the G*plus* Adapter for Siebel 7 from version 6.5.2 to 7.0, from version 7.0 to 7.1, from version 7.1 to 7.2, from version 7.2 to 7.5, and from version 7.5 to 8.0, and includes examples of methods used to preserve some customizations. However, these examples are provided as an aid; they are not intended as a comprehensive guide. Ultimately, you are responsible for re-implementing all customizations.

The migration procedures below assume that your organization has made modifications to customize the standard Siebel and the G*plus* Adapter packages, and that you wish to see these customizations implemented in your upgraded versions. In some cases, new features and options available in the 7.0, 7.1, 7.2, 7.5, or 8.0 release of the Adapter will supersede related capabilities available in your earlier version, and you will want to replace it with the new, standard G*plus* Adapter feature.

Although it is impossible to automate the migration of all such customizations, this document does provide help with the migration of customizations implemented in the `GenComm_universal.def` file (the `.def` file). Modifications to the driver-based components of the G*plus* Adapter for Siebel CRM typically involve changes to this file.

Note: In versions 6.5.2 through 7.2 of the Adapter, the file is called `GenComm7_universal.def`. In version 7.5 and 8.0 of the Adapter, the file is called `GenComm_universal.def`.

Before starting the migration process, familiarize yourself with the HTML documents named `70gp_supp_sl7.html`, `71gp_supp_sl7.html`, `72gp_supp_slcrm.html`, `75gp_supp_slcrm.html`, or `80gp_supp_slcrm.html` depending on whether you are migrating from 6.5.2 to 7.0, from 7.0 to 7.1, from 7.1 to 7.2, from 7.2 to 7.5, or from 7.5 to 8.0.

- The document named `70gp_supp_sl7.html` indicates the differences between the G*plus* Adapter's standard 7.0 and 6.5.2 versions of the .def file.
- The document named `71gp_supp_sl7.html` indicates the differences between the G*plus* Adapter's standard 7.1 and 7.0 versions of the .def file.
- The document named `72gp_supp_slcrm.html` indicates the differences between the G*plus* Adapter's standard 7.1 and 7.2 versions of the .def file.
- The document named `75gp_supp_slcrm.html` indicates the differences between the G*plus* Adapter's standard 7.2 and 7.5 versions of the .def file.
- The document named `80gp_supp_slcrm.html` indicates the differences between the G*plus* Adapter's standard 7.5 and 8.0 versions of the .def file.

If you want to migrate any of the customizations implemented in the `GenComm7_universal.def` or `GenComm_universal.def` file, you will need to use the appropriate HTML file for your migration.

Genesys does not support any customizations to the Configuration Synchronization Component, so you must perform any modifications to this server-based component on your own.

Note: Throughout the documentation for the G*plus* Adapter for Siebel CRM, the Voice, Siebel E-mail (Media Routing), and Multimedia components of the Adapter are identified as the "driver-based components," and the Configuration Synchronization, Campaign Synchronization, Communication Server and UCS Gateway components of the Adapter are identified as the "server-based components."

Perform these migration procedures:

1. Review the HTML document `70gp_supp_sl7.html`, `71gp_supp_sl7.html`, `72gp_supp_slcrm.html`, `75gp_supp_slcrm.html`, or `80gp_supp_slcrm.html` as appropriate to your migration.
2. Perform updates:
   - If migrating from 6.5.2, update your 6.5.2 version of the G*plus* Adapter to the latest maintenance release, as necessary.
   - If migrating from 7.0, update your 7.0 version of the G*plus* Adapter to the latest maintenance release, as necessary.
   - If migrating from 7.1, update your 7.1 version of the G*plus* Adapter to the latest maintenance release, as necessary.
   - If migrating from 7.2, update your 7.2 version of the G*plus* Adapter to the latest maintenance release, as necessary.

- If migrating from 7.5, update your 7.5 version of the G*plus* Adapter to the latest maintenance release, as necessary.

3. Back up all files for your previous implementation of the G*plus* Adapter for Siebel CRM (6.5.2, 7.0, 7.1, 7.2, or 7.5).
4. Make an extra copy of the `GenComm_universal.def` file for the migration.
5. Update your `GenComm_universal.def` file (or `GenComm7_universal.def` if you are migrating to version 7.0, 7.1, or 7.2 of the Adapter).

   Use the more detailed procedures documented below, under the heading "Upgrading a Customized GenComm7_universal.def or GenComm_universal.def File" on page 1694, to preserve customizations implemented in this file while updating it for use in the deployment of the G*plus* Adapter for Siebel CRM. Save copies of the resulting .def file.
6. Identify customizations made in any additional components other than the .def file. For example, identify any customizations made to the Campaign Synchronization Component (known as the Outbound Contact Component in version 6.5.2 of the G*plus* Adapter).
7. Uninstall the previous version of the G*plus* Adapter for Siebel 7 (6.5.2, 7.0, 7.1, 7.2, or 7.5).

   Apply the uninstallation instructions in the *6.5 G*plus *Adapter for Siebel 7 Deployment Guide, G*plus *Adapter 7 for Siebel 7 Deployment Guide, G*plus *Adapter 7.1 for Siebel 7 Deployment Guide,* or the *G*plus *Adapter 7.2 for Siebel 7 Deployment Guide*, or the *Gplus Adapter 7.5 for Siebel CRM Deployment Guide*, but do not make any configuration changes.
8. Install the 7.0, 7.1, or 7.2 version of G*plus* Adapter for Siebel CRM with the updated `.def` file (see Step 5 above).

   Or, install the 7.5 version of the G*plus* Adapter for Siebel CRM, as described by the installation procedures in the *Gplus Adapter 7.5 for Siebel CRM Deployment Guide* with the updated `.def` file (see Step 5 above).

   Or, install the 8.0 version of the G*plus* Adapter for Siebel CRM, as described by the installation procedures in the *Gplus Adapter 8.0 for Siebel CRM Deployment Guide* with the updated `.def` file (see Step 5 above).
9. Re-implement customizations during or after installation of the G*plus* Adapter for Siebel CRM.

Note: When migrating Multimedia and/or Media Routing components to the 7.2, 7.5, or 8.0 version, it is necessary to add a pseudo extension `<teleset-name>@GP` and to remove old multimedia DNs (extensions with `@GE`, `@GC` and `@SE` aliases) for all telesets used for Siebel eMail and/or Genesys multimedia interactions. This change is necessary because Genesys Multimedia (formerly known as

Genesys Multi Channel Routing [MCR] Solution) solution uses `place` as an endpoint for e-mail, chat and other (open media) interactions, while ICS uses chat and e-mail DNs.

10. Test.

Upgrading a Customized GenComm7_universal.def or GenComm_universal.def File

Modifications to the configuration of driver-based components of the G*plus* Adapter for Siebel CRM typically involve changes to the `GenComm_universal.def` file (or `GenComm7_universal.def` in versions 7.0, 7.1, and 7.2). By migrating the customizations you have made in your 6.5.2, 7.0, 7.1, or 7.2 `GenComm7_universal.def` file to the 7.5 `GenComm_universal.def` file, you can maintain your customizations (assuming other conditions remain the same). By migrating the customizations you have made in your 7.5 `GenComm_universal.def` file, you can maintain your customizations (assuming other conditions remain the same).

The HTML document containing the text of the standard `GenComm7_universal.def` for the G*plus* Adapter for Siebel CRM is included on the distribution DVD for the 7.0, 7.1, and 7.2 releases.

The HTML document containing the text of the standard `GenComm_universal.def` file for the G*plus* Adapter for Siebel CRM is included on the distribution DVD for the 7.5 and 8.0 releases.

For 6.5.2 to 7.0 differences:

The HTML file that documents the differences between the standard 7.0 .def file and the 6.5.2 version of the .def file is called `70gp_supp_sl7.html`:

(http://docs.genesys.com/Special:Repository/70gp_supp_sl7.html?id=69f1ac86-452d-45be-b1f4-6f00033ad75e).

For 7.0 to 7.1 differences:

The HTML file that documents the differences between the standard 7.1 .def file and the 7.0 version of the .def file is called `71gp_supp_sl7.html`:

(https://docs.genesys.com/Special:Repository/71gp_supp_sl7.html?id=6a7a826d-79e9-4f39-a862-4cf9e1c93de2).

For 7.1 to 7.2 differences:

The HTML file that documents the differences between the standard 7.2 .def file and the 7.1 version of the .def file is called `72gp_supp_slcrm.htm`.

(http://docs.genesys.com/Special:Repository/72gp_supp_slcrm.html?id=66dbe6cf-d1c3-4a78-9d2a-947a9acf6a16).

For 7.2 to 7.5 differences:

The HTML file that documents the differences between the standard 7.5 .def file and the 7.2 version of the .def file is called `75gp_supp_slcrm.htm`.

(https://docs.genesys.com/Special:Repository/75gp_supp_slcrm.html?id=e2cf4617-bc53-4f04-9ec0-5d3879ea2c88).

For 7.5 to 8.0 differences:

The HTML file that documents the differences between the standard 8.0 `.def` file and the 7.5 version of the `.def` file is called `80gp_supp_slcrm.htm`.

(https://docs.genesys.com/Special:Repository/80gp_supp_slcrm.html?id=d80c14fa-396d-43a8-ac08-5c01ba4adaed).

Use the appropriate migration-oriented HTML file to update your customized version of the 6.5.2, 7.0, 7.1, 7.2, or 7.5 .def file so that it can be used as a G*plus* Adapter 8.0 .def file.

Note: You can update a .def file for only one version at a time.

To migrate from the 6.5.2 version to the 8.0 version of the .def file:

1. Apply the differences between the 6.5.2 and the 7.0 versionS.
2. Apply the differences between the 7.0 and the 7.1 versions.
3. Apply the differences between the 7.1 and the 7.2 versions.
4. Apply the differences between the 7.2 and the 7.5 versions.
5. Apply the differences between the 7.5 and the 8.0 versions.

This converts your customized G*plus* Adapter 6.5.2, 7.0, 7.1, 7.2. or 7.5 .def file into a G*plus* Adapter 8.0 .def file.

Test the converted .def file after making any changes. Genesys Laboratories does not guarantee the success of this conversion procedure.

Some of the changes you can make to upgrade a 6.5.2, 7.0, 7.1, 7.2. or 7.5 .def file are not mandatory, and some are not required unless you are working with a specific G*plus* Adapter for Siebel CRM component or option. The migration-oriented HTML file (`70gp_supp_sl7.html`, `71gp_supp_sl7.html`, `72gp_supp_slcrm.html`, `75gp_supp_slcrm.htm`, or `80gp_supp_slcrm.htm`) provides information about each of the sections of the .def file, what they are used for, and how they can be modified during migration.

Genesys

Part

26 The Gplus Adapter for SAP Analytics Migration

This chapter provides background information on how to migrate and upgrade the G*plus* Adapter for SAP Analytics from version 7.5 to 8.0.

The information is divided into the following chapters:

Chapter 80, “Introduction to the Gplus Adapter for SAP Analytics Migration,” on page 1699 discusses the preliminary migration procedures and the migration order for the Gplus Adapter for SAP Analytics.

Chapter 81, “Changes in the Adapter Configuration Options and Deployment,” on page 1701 discusses changes (additions, deletions, and modifications) in the product that need specifically to be addressed during the migration process.

Chapter 82, “Migration Procedures,” on page 1705 provides the required steps to migrate the Adapter.

Chapter

80 Introduction to the Gplus Adapter for SAP Analytics Migration

This chapter discusses the preliminary migration procedures and the migration order for migrating from version 7.5 to 8.0.

This chapter discusses the following section:

Preliminary Migration Procedures

Note: If you want to upgrade your operating system before migrating your Genesys product, contact Professional Services.

The migration process includes these preliminary procedures for the G*plus* Adapter for SAP Analytics:

1. Review Chapter 1, "Migration Roadmap," on page 41 of this guide.
2. Examine the deployment and configuration changes for the G*plus* Adapter in the next chapter, Chapter 81, "Changes in the Adapter Configuration Options and Deployment," on page 1701.
3. You might also want to look at the option changes in that same chapter.

Notes:
- These tables only discuss changes that directly affect the migration of this product. For a complete list of configuration options for the G*plus* Adapter for SAP Analytics, see the G*plus* Adapter for SAP Analytics Deployment Guide.
- For the complete information about the *What's New in This Release* section of the G*plus* Adapter 7.5 for SAP Analytics and how the 7.5 version functions, see the current product's Deployment Guide.
- For the complete information about the *What's New in This Release* section of the G*plus* Adapter 8.0 for SAP Analytics and how the 8.0 version functions, see the current product's Deployment Guide.
- For a complete list of documentation relevant to the migration of this product, see the "Reference Materials" section.

4. Review the licensing requirements for the other Genesys products required by the Adapter to make sure that they are properly licensed. See Chapter 2, "Licensing Migration," on page 47 in this guide.
5. See the Genesys Licensing Guide for more information about licensing.
6. Check the interoperability of the Adapter during the upgrade procedures.

   See the *Genesys Interoperability Guide* for information on the compatibility of the Genesys products with various Configuration Layer Environments, the interoperability of the Reporting templates and solutions, and the G*plus* Adapters interoperability.

Reference Materials

- *Genesys Licensing Guide*
- *Genesys Interoperability Guide*

For the 7.5 version of the Adapter:

- G*plus Adapter 7.5 for SAP Analytics Deployment Guide*

For the 8.0 version of the Adapter:

- G*plus Adapter 8.0 for SAP Analytics Deployment Guide*

Chapter

81 Changes in the Adapter Configuration Options and Deployment

This chapter compares the changes for configuration options for the G*plus* Adapter 8.0 for SAP Analytics operation with the 7.5 release. In each case, details of the option changes are given. As with component configuration in Configuration Manager, the following configuration options are divided into sections.

This chapter also provides the information to upgrade the G*plus* Adapter for SAP Analytics from version 7.5 to 8.0.

This section only discusses the changes (additions, deletions, and modifications) in the product that need to be addressed during the migration process.

This chapter discusses the following topics:

Changes to the Configuration Options for the Gplus Adapter

Tables 317 and 318 outlines the new options in the various configuration sections for the G*plus* Adapter 8.0 for SAP Analytics.

As with the rest of the information in this chapter, it is assumed that you are migrating to the most recent release of the Adapter. All version numbers in the following tables are for historical reference only.

The options in the table below are described in full detail in the current product's Deployment Guide.

Table 317: Configuration Option Changes from 7.5 to 8.0

Gplus Adapter 7.5 Configuration Section	Gplus Adapter 7.5 Configuration Options	Gplus Adapter 8.0 Configuration Section	Gplus Adapter 8.0 Configuration Options	Comments/Details
interaction-concentrator	voice-handle	settings	interaction-id-key	The user data key where the custom interaction ID is stored. For more details, refer to the *G*plus *Adapter for SAP Analytics Deployment Guide*.
	email-from-to		N/A	This option is now split into two separate options (see, Table 318)
analytics-algo	external-dns	settings	external-dns-group	The option description remains the same as in the 7.5 release.

Table 318: New Configuration Options for Gplus Adapter 8.0 for SAP Analytics

Gplus Adapter 8.0 Option Section	Gplus Adapter 8.0 Configuration Options	Comments/Details
settings	email-from-key	The user data key where the custom e-mail `From` address is stored. For more details, refer to the *G*plus *Adapter for SAP Analytics Deployment Guide*.
	email-to-key	The user data key where the custom e-mail `To` address is stored. For more details, refer to the *G*plus *Adapter for SAP Analytics Deployment Guide*.

Deployment Changes

The 8.0 release of the Adapter does not require a link to Interaction Concentrator in the `Connections` tab; instead it requires a link to the Database Access Point that points to the Genesys Info Mart Database.

This detailed deployment procedure is described in the *G*plus *Adapter for SAP Analytics Deployment Guide*.

Chapter

82 Migration Procedures

This chapter discusses the migration procedures for release 7.5 to 8.0 and contains the following sections:

Migration Procedures for the Gplus Adapter for SAP Analytics

The migration procedures for the G*plus* Adapter for SAP Analytics from 7.5 to 8.0 are discussed in this section.

Prior to the Adapter migration, you must complete the migration of all systems required for this new version of the Adapter, including any related licensing procedures. This is explained below under the heading, “Prerequisite Migration for the Gplus Adapter for SAP Analytics” on page 1706.

The migration of the G*plus* Adapter for SAP Analytics version 7.5 to 8.0 is not complicated in itself. To summarize, you uninstall the previous version of the Adapter and install the new version according to the instructions in the current product's Deployment Guide.

Prerequisite Migration for the Gplus Adapter for SAP Analytics

Preliminary Information

Prerequisites for the 8.0 (or Later) Framework Environment

If you are migrating your entire existing Genesys Framework to the 8.0 or later release of Framework, you must upgrade your Configuration Layer components to 8.0 or later before you migrate your Adapter. If you are only upgrading your Adapter, there are no special steps you need to take with your existing Configuration Layer. In both scenarios, the steps for migrating the Adapter are the same.

Preliminary Procedures

Complete these preliminary procedures before starting your migration of the G*plus* Adapter for SAP Analytics:

1. Obtain the appropriate license files for the Genesys products required to support your implementation of the G*plus* Adapter for SAP Analytics.

   Licensing is addressed in the following documents:

   - Genesys Licensing Guide
   - Chapter 2, “Licensing Migration,” on page 47 in this guide.

2. Migrate Framework 7.5 to 8.0 or later, if necessary.

   See, Chapter 80, “Introduction to the Gplus Adapter for SAP Analytics Migration,” on page 1699.

3. Upgrade the other products (including Genesys products) that are required for your implementation of the G*plus* Adapter.

   Refer to the system requirements documentation in the G*plus* Adapter for SAP Analytics Deployment Guide and to the product's Release Advisory.

Migration Procedures

When all of the prerequisites for migration of the G*plus* Adapter for SAP Analytics are all in place, the fundamental migration process includes the following phases:

- Backup of all previous version files
- Uninstalling the previous version

- Installing the new version
- Setting the options

Setting the Configuration Options

This section discusses how to set the options that changed in the 8.0 release.

Setting the interaction-id-key Option

In the 7.5 release, the `voice-handle` option contains the table name and column name where the custom voice ID is stored.

For example:

The user data key where a custom ID is stored is named `gplus-analytics-id`. In Interaction Concentrator, this user data key is configured (see, the Interaction Concentrator documentation for more details) to be stored in the custom `call-cust1` table and in the custom `cust-data-9` column. The `voice-handle` option in 7.5 release has the following value:

- `voice-handle = call-cust1,cust-data-9`

In the 8.0 release, this option was renamed to `interaction-id-key` (see Table 317 on page 1702) and should contain a custom user data key.

For example:

- `interaction-id-key = gplus-analytics-id`

Setting the email-from-key and email-to-key Options

In the 7.5 release, the `email-from-to` option is used to enable custom `From` and `To` e-mail addresses (see, the *G*plus *Adapter 7.5 for SAP Analytics Deployment Guide*). The `email-from-to` option contains the table name and the two column names where the `email-From` and `email-To` addresses are stored in the Interaction Concentrator database.

For example:

The user data key where the `email-From` address is stored is named as follows: `FromAddress` and the user data key where the `email-To` address is stored is named as follows: `To`. In Interaction Concentrator, this user data key is configured (for more details, see the Interaction Concentrator documentation) to be stored in the custom `call-cust1` table and in the custom `cust-data-1` and `cust-data-2` columns. The `email-from-to` option in release 7.5 has the following value:

- `email-from-to = call-cust1,cust-data-1,cust-data-2`

In the 8.0 release, the `email-from-to` option was split into two separate options (see, Table 317 on page 1702) that should contain a custom user data key.

For example:

- email-from-key = FromAddress
- email-to-key = To

For more details on how to configure Interaction Concentrator and Genesys Info Mart to work with the user data, refer to the corresponding products' documentation.

Part

27 Performance Management Advisors Migration

The chapter in this Part describes the migration process for Performance Management Advisors. Up to, and including, release 3.3, this solution was known as Informiam.

The chapter also discusses component changes and other Genesys software that supports and enables Performance Management Advisors functionality.

This Part covers the following:

- Migration for the Genesys Performance Management Advisors.

The information is provided in the following chapter:

- Chapter 83, "Performance Management Advisors Migration," on page 1711, which discusses the migration from Advisor Suite 3.3 to later releases.

In addition, see the *Genesys Interoperability Guide*, which includes tables with interoperability information about 6.1, 6.5, 7.x, and some 8.x releases of Genesys products.

Chapter

83 Performance Management Advisors Migration

This chapter provides information for migration to Performance Management Advisors releases 8.0 and later. Up to, and including, release 3.3, this solution was known as Informiam.

This chapter contains the following sections:

Overview

This chapter describes migration to release 8.x of the Advisor Suite from earlier releases, beginning with release 3.3. The Advisor Suite consists of the following products:

- Contact Center Advisor (CCAdv)
- Workforce Advisor (WA)
- Frontline Advisor (FA)
- Agent Advisor (AA)
- Advisors Genesys Adapter (AGA)
- Advisors Cisco Adapter (ACA)

You must install Advisors Platform (PLT) to use the Advisors products. For more information about required and optional components, see "Advisors Applications and Adapters".

Documentation Resources

The following resources provide additional information that is relevant to this software. Consult these additional resources as necessary.

- *Performance Management Advisors Deployment Guide* describes how to install and configure all Advisors components.
- *Performance Management Advisors Contact Center Advisor – Mobile Edition Deployment Guide* describes how to install and configure Contact Center Advisor – Mobile Edition (CCAdv-ME).

  Starting in release 8.1.5, there is no longer a standalone installation file for deploying CCAdv-ME; it is an option on the CCAdv installer. Information in the *Performance Management Advisors Contact Center Advisor – Mobile Edition Deployment Guide* was moved to the *Performance Management Advisors Deployment Guide*.
- *Performance Management Advisors Contact Center Advisor & Workforce Advisor Administrator User's Guide* describes how to perform administration functions for Contact Center Advisor and Workforce Advisor.
- *Performance Management Advisors Frontline Advisor Administration User's Guide* describes how to perform administration functions for Frontline Advisor.
- *Performance Management Advisors Cisco Adapter Release Note* provides release-specific information about new features, as well as corrections, modifications, known issues, and recommendations for your Advisors Cisco Adapter software.
- *Performance Management Advisors Platform Release Note* provides release-specific information about new features, as well as corrections, modifications, known issues, and recommendations for your Advisors Platform software.
- *Performance Management Advisors Contact Center Advisor & Workforce Advisor Release Note* provides release-specific information about new features, as well as corrections, modifications, known issues, and recommendations for your CCAdv/WA software.
- *Performance Management Advisors Frontline Advisor & Agent Advisor Release Note* provides release-specific information about new features, as well as corrections, modifications, known issues, and recommendations for your FA/AA software.

- *Performance Management Advisors Genesys Adapter Release Note* provides release-specific information about new features, as well as corrections, modifications, known issues, and recommendations for your Advisors Genesys Adapter software.
- *Performance Management Advisors Contact Center Advisor - Mobile Edition Release Note* provides release-specific information about new features, as well as corrections, modifications, known issues, and recommendations for your Contact Center Advisor – Mobile Edition software. Also see client-specific Release Notes for CCAdv-ME:
  - *Performance Management Advisors Contact Center Advisor - Mobile Edition Android Client Release Note*
  - *Performance Management Advisors Contact Center Advisor - Mobile Edition Blackberry Client Release Note*
  - *Performance Management Advisors Contact Center Advisor - Mobile Edition iOS Client Release Note*
- *Performance Management Advisors Platform Release Advisory* provides important information that applies to the Advisors Platform.
- *Performance Management Advisors Cisco Adapter Release Advisory* provides important information that applies to the Cisco Adapter product.
- *Performance Management Advisors Genesys Adapter Release Advisory* provides important information that applies to the Genesys Adapter product.
- *Performance Management Advisors Frontline Advisor & Agent Advisor Release Advisory* provides important information that applies to the Frontline Advisor/Agent Advisor product.
- *Performance Management Advisors Contact Center Advisor and Workforce Advisor Release Advisory* provides important information that applies to the Contact Center Advisor/Workforce Advisor product.
- *Performance Management Advisors Contact Center Advisor - Mobile Edition Release Advisory* provides important information that applies to the Contact Center Advisor - Mobile Edition product.

Preparing for Migration

Note: Genesys strongly recommends that anyone considering migration of the Performance Management Advisors should engage Genesys Professional Services for the task.

- Ensure you have a backup of your current Advisor Suite and all associated configuration before migration.

- Review "Important Migration Information" for information about utilities that may be required to migrate your Advisor Suite.
- Read "Migration" to ensure that you are fully prepared to perform all the steps.
- Review "Overview of General Changes in the Advisor Suite by Release" for information about new or changed components. For complete information about components, see the *Genesys Performance Management Advisors Deployment Guide* for the release to which you are migrating.
- Review the Release Notes for information about known issues, recommendations, and corrections and modifications for the release to which you are migrating.
- Review the Release Advisories, if applicable, for the release to which you are migrating.

Supporting Software Components

Advisors components and all related components (Stat Server, Configuration Server) must be installed on the same network.

All physical servers used in a given Advisors installation must have their system clocks synchronized with a central time server.

Before commencing Advisors migration, ensure that the following external software is installed on the appropriate physical computer involved in Advisors operation:

- Java Development Kit (JDK)
- Apache HTTP Server

  If the Apache server is installed on the same machine as Advisors Platform, the Apache server must use a port other than 8080 (which is used by Advisors Platform). In most cases, Apache can use port 80.
- One of:
  - Microsoft SQL Server
  - Oracle (applicable to Releases 8.1 and later)
- If using Oracle, the appropriate Oracle JDBC driver is also required. You can obtain the driver from the Oracle Web site (www.oracle.com).

For information about specific versions of the preceding software components that are compatible with the Advisors release to which you are migrating, see the *Genesys Supported Operating Environment Reference Guide*.

Advisors Applications and Adapters

The following Table shows which Advisor Adapter to install with Advisor applications.

Table 319: Adapter Deployment Requirements

Advisor Application	Data Source		
	Cisco	Genesys	Mixed (Cisco and Genesys)
Contact Center Advisor	No Adapter required	Advisors Genesys Adapter	Advisors Genesys Adapter
Frontline Advisor	Advisors Cisco Adapter	Advisors Genesys Adapter	Advisors Cisco Adapter for the Cisco data source and Advisors Genesys Adapter for the Genesys data source
Contact Center Advisor and Frontline Advisor	Advisors Cisco Adapter	Advisors Genesys Adapter for CCAdv and Advisors Genesys Adapter for FA	Advisors Genesys Adapter for CCAdv (CCAdv does not require an adapter when installed with Cisco data sources). Advisors Genesys Adapter for FA for the Genesys data source and Advisors Cisco Adapter forFA for the Cisco data source. **NOTE:** AGA serving both FA and CCAdv/WA from one system is not recommended for performance reasons.

Contact Center Advisor – Mobile Edition

Before commencing migration, ensure that the following software is installed on the appropriate physical computer:

- Windows Server or Red Hat Enterprise Linux
- Microsoft SQL Server or Oracle
- Java JDK
- Apache or Apache SSL Secure Web Server

- Advisors Platform
- Contact Center Advisor

Not all releases of CCAdv/ME support all of the preceding software. For compatibility and supported versions of the preceding software, see the *Performance Management Advisors Contact Center Advisor – Mobile Edition Deployment Guide*, or – starting in Release 8.1.5 – the *Performance Management Advisors Deployment Guide*, and the *Genesys Supported Operating Environment Reference Guide*.

Overview of General Changes in the Advisor Suite by Release

This section summarizes the significant enhancements in the Advisor Suite for each release. For detailed information about the Advisors features and functionality in each release, see the Performance Management Advisors documentation set (key documents are listed in "Documentation Resources").

Major enhancements in Advisor Suite functionality for Release 8.5.0

- The Performance Management Advisors (PMA) browser has been removed and replaced with a new thin-client user interface (supported on Firefox v.24.x+) that provides a single landing page for all Advisors. You can open each module in a separate browser tab. Always check the *Genesys Supported Operating Environment Reference Guide* for information about supported browsers and browser versions for each Advisors release.
- You can have two separate deployments of Advisors on the same machine, each with their own independent configuration and their own databases. The port numbers that Advisors modules use to communicate, previously hard-coded, are now exposed in properties files. The Platform installer now accepts and sets configurable port values for Geronimo. See the *Performance Management Advisors Deployment Guide* for details.
- In the Administration module, Metric Manager has been improved:
  - The **Source Metrics** page provides a user interface for maintaining statistic-type definitions from Stat Server. You can create custom source metrics for Agents, GroupAgents, Queue, and CallingList objects.
  - The **Report Metrics** page enables you to create custom Contact Center Advisor (CCAdv) agent group metrics and Frontline Advisor agent metrics. In release 8.5.0, you cannot create custom metrics for Workforce Advisor (WA).

- You can reduce the volume of statistics collected, and potentially reduce the number of Stat Servers used, by grouping raw report metrics and configuring metric applicability for source objects in the Configuration Server.
- Advisors Platform now supports a backup Configuration Server.
- The Frontline Advisor Oracle schema/MS SQL database has been removed from the installation.
  Frontline Advisor data has been moved to the Advisors Platform Oracle schema/MS SQL database.
- You can define metric display names and descriptions in English or German in the Metric Manager. Those names and descriptions are then displayed in the Advisors applications when you choose one of those languages on login.
- Advisors Genesys Adapter supports the Outbound Contact Campaign Calling List object.
- Performance Management Advisors components supported connection to Oracle Real Application Clusters (RAC) starting in release 8.1.4. Advisors now fully support RAC functionality such as High Availability and failover, as well.
- Support for Genesys Management Framework 8.1.3.
- Performance Management Advisors support the following:
  - Stat Server version 8.1.2
  - Genesys Workforce Management 8.1.2
  - Java SE Development Kit 7
  - Red Hat Enterprise Linux 6.0 64-bit native
  - Windows 8 64-bit Native
  - Windows Server 2012 64-bit native
  - Apache 2.4

Major enhancements in Advisor Suite functionality for Release 8.1.5

- Starting in Release 8.1.5, permissions for user accounts are loaded when users log in to the Advisors browser. This affects the availability of objects in the browser:
  - In general practice, if a user is logged in to the Advisors browser, and a new object is added to Genesys Configuration Server, it is not added to the user's view until that user logs out and logs in again (if the user has the necessary security permission to view the object). The reverse is also true: when a user's access to an object is removed while that user is logged in, access to the object is not revoked until the user logs out and logs in again.

  - To see objects that were activated or removed in Advisors after the user logged in, that user must log out and log in again.
- Performance Management Advisors format numbers that display on the dashboard modules based on the language you selected in the Advisors browser, regardless of the system setting for Locale on the server. For example, if you log in to the German-language Advisors browser, but the system setting for Locale on the server is English, the numbers on your Advisors dashboard are formatted in the German style. Prior to Release 8.1.5, the number format depended on the Locale setting on the server.
- The following general changes have been made to the navigation pane in the Administration module:
  - The Frontline Advisor Administration component is embedded in the Advisors Administration component, consolidating administration of CCAdv, WA, and FA within one Administration module in the Advisors browser. To access the Frontline Advisor page in the Administration module, you must have access permissions to both Frontline Advisor Administration (`FrontlineAdvisor.Administration.canView`) and Advisors Administration (`AdvisorsAdministration.canView`).
  - The Object Configuration page in the Administration module is now the Base Object Configuration page, and is no longer included in the Genesys Adapters section of the navigation pane.
  - The Manage Adapters page is read-only.
  - The navigation link to the Agent Group Configuration page is moved below the links to the Application and Contact Group Configuration pages.
  - The layout and content of the Agent Group Configuration and Contact Group Configuration pages have been updated; the contact center column and the contact center drop-down list now show the network contact center (NCC) name with the agent group contact center (AGCC) name, and uses the format NCC:AGCC.
- Performance Management Advisors support Genesys Management Framework up to, and including, Release 8.1.3.
- An additional configuration mode is added to Contact Center Advisor (CCAdv) / Workforce Advisor (WA), which enables you to implement WA configuration that does not depend on the existence of CCAdv configuration or CCAdv object mappings. The Administration System Configuration page contains a new option for CCAdv/WA configuration mode, which you can set as follows:
  - **yes**: for Integrated CCAdv/WA Configuration mode
  - **no**: for Independent CCAdv/WA Configuration mode

  If Independent Configuration mode is selected, you can now directly map agent groups to contact groups mapped to Network Contact Centers on the Contact Group-Agent Group tab of the Contact Group Configuration page.

If Independent Configuration mode is selected, a contact group can be associated with an application that is not mapped to any contact center, application group, region, or operating unit. The application inherits those properties from the contact group associated with it.

If Independent Configuration mode is selected, a contact group can be associated with an agent group that is not mapped to any application. The agent group inherits contact center and application group properties from the contact group associated with it.

- You can now map an agent group to multiple contact groups.
- New bulk configuration tools are provided for CCAdv and WA, which enable you to configure applications, contact groups and their relationships to agent groups outside the Administration module. An additional configuration export/diagnostics tool is also provided. The new tools are found in the installation package, in folders `\sql\mssql\bulkconfig` and `\sql\oracle\bulkconfig`.
- CCAdv/WA now support interaction with Data Manager. Metadata previously stored in the Advisors Genesys Adapter configuration database is now found in the Platform database and Configuration Server.
- The Alerts window was previously called the Alerts pane or panel. You can open the Alerts window from the Map pane as you always did. The Alerts window has been re-designed in Release 8.1.5, and includes the following changes:
  - You can scroll through the alerts of each contact center automatically or manually.
  - Inactive alerts display for a few seconds before they are removed from the Alerts window.
  - The Alerts window now displays the difference between the last refresh of the metric value and the current metric value, as well as the percentage of the absolute difference.
  - An expanded Alert cell in the Alerts window displays a spark line to indicate the history of the alert since the Alerts window was opened. Red or yellow spark line bars indicate the values that triggered a threshold alert.
- CCAdv and WA metric graphing changes:
  - The time slider attributes are maintained when you log out and log in again.
  - The five default colors used in the graph are more easily distinguished from one another; the color values have greater contrast.
  - If metrics are not defined for an object, they are not available to graph.
  - You can graph multiple time profiles for a metric simultaneously.
- Role-based access control (RBAC) extends to the Alert Management Reports window and the Alert Management tab. You can view action reports only if you have permission to see the aggregating objects and metrics of the alerts to which the reports are related.

- Workforce Advisor is horizontally scalable. The WA server can be deployed on one node, and more than one instance of the WA web services can be deployed on other nodes in the same cluster of Advisors. This permits a larger number of simultaneous users of WA.
- CCAdv supports 1500 concurrent users per installation and WA supports 1500 concurrent users per installation.
- During component upgrades, installation packages preserve the configured `Warehoused.metrics.max.minutes.kept` value.
- Frontline Advisor (FA) can operate in a distributed, or clustered, mode. In distributed mode, all FA instances share the Platform database and FA database. Only one FA instance, the FA engine, performs metric aggregation. The other FA instances, which provide FA web services, retrieve dashboard data and metrics from the FA engine. Together, the FA web instances provide the presentation layer.
- The following performance enhancements have been made to Frontline Advisor:
  - Frontline Advisor now supports 1500 concurrent users with a maximum dashboard age of 30 seconds for State metrics, 95% of the time, and a maximum dashboard age of 2 minutes for Performance and Rule metrics, 95% of the time.
  - Frontline Advisor now performs metric rollups in memory. Previously, FA performed the metric rollups through database stored procedures.
- Metadata previously stored in the Advisors Genesys Adapter database related to Data Manager functionality is now found in Advisors Platform and Genesys Configuration Server. The configuration database for Genesys Adapter is no longer required and has been removed. If you are upgrading to Release 8.1.5, you use the Advisors Object Migration Wizard to migrate data from the Genesys Adapter configuration database to Advisors Platform and Configuration Server. Changes related to this new functionality include the following:
  - Changes in the type of files supplied in the installation package.
  - Updates to the installation screens used to deploy AGA.
  - Introduction of a new user account (the Object Configuration User account), which you configure in Configuration Manager.
- Advisors Genesys Adapter supports Genesys Platform Software Development Kit (PSDK) to Release 8.1.2.
- Performance Management Advisors support encryption of Advisors Genesys Adapter metrics database data.
- Genesys Cisco Adapter can connect to Oracle Real Application Clusters (RAC). RAC functions such as High Availability and failover are not supported. Other Advisors components supported connection to RAC servers in Advisors release 8.1.4; see “Major enhancements in Advisor Suite functionality for Release 8.1.4” on page 1721 for additional information.

Major enhancements in Advisor Suite functionality for Release 8.1.4

- New performance metrics added to Frontline Advisor:
  - Thirteen new source metrics added to the metrics configuration table (metric IDs ranging from 500 to 512 inclusive).
  - New source and computed performance metrics, including metrics that are disabled until you configure an associated filter for each (available in stored procedures in the FA database).
  - Advisors Platform, Advisors Genesys Adapter, Contact Center Advisor/Workforce Advisor, and Frontline Advisor can connect to Oracle Real Application Clusters (RAC). Advisors Cisco Adapter supports connection to RAC servers starting in Advisors release 8.1.5; see "Major enhancements in Advisor Suite functionality for Release 8.1.5" on page 1717 for additional information.
- Starting in Release 81401:
  - French is added as an option for language and country settings. English and German continue to be options.
  - Performance Management Advisors are compatible with Oracle Java 1.7.
  - Performance Management Advisors can use a Transport Layer Security (TLS) connection to Genesys Configuration Server.

Major enhancements in Advisor Suite functionality for Release 8.1.3

- A Metric Manager page is added to the Administration module. Metric Manager replaces the Metrics page. All CCAdv/WA metrics can be viewed in the Metric Manager, and the display attributes for all metrics can be updated. In Release 8.1.3, you can create custom application metrics using existing source metrics provided by Advisors Genesys Adapter and existing application metrics (you cannot create agent group or contact group metrics).
- Use the Time Profile for Charting property in the Metric Manager to enable up to five metrics for graphing.
- The Metric Graphing window functionality has the following changes:
  - Access to the Metric Graphing window is now available as an option within the row in which you select an object or application for graphing. Previously, the button was only available above the Contact Centers and the Applications panes.
  - You can access the Metric Graphing window from Workforce Advisor, which was previously unavailable.
  - You can graph WA forecast and real-time metrics.

  - Both Contact Center Advisor and Workforce Advisor metrics can be displayed within the same Metric Graphing window.
  - You select the graphing style within the Metric Graphing window.
- CCAdv and WA support JAWS Standard version 11, an accessibility interface for users with visual impairment. JAWS software provides audio and a series of keyboard shortcuts for navigating the tabulated information on the screen.
- Additional privileges are added for Role-Based Access Control within Contact Center Advisor, Workforce Advisor, and Frontline Advisor.
- The Genesys Adapter installer includes additional Stat Server configuration options. You can now specify the types of statistics supported on the Stat Server pair you are associating with a Genesys Adapter instance. For example, you can choose to collect core statistics only on certain pairs of Stat Servers and third-party media statistics on other specific pairs.
- There is additional configuration in Configuration Manager to enable identification of NonVoiceOnly virtual queues. If you want only third-party media statistics to be requested on certain virtual queues, those virtual queues must be identified in the Configuration Server.
- The Show Totals and Averages Row for Agent Groups option on the System Configuration page of the Administration module now hides the Totals and Averages row in both the Contact Center Advisor and Workforce Advisor Agent Groups panes. Previously, it affected the Agent Groups pane in the Contact Center Advisor dashboard only.
- A Default Grouping section is added to the System Configuration page in the Administration Module. Use the drop-down lists to change the default grouping selection for the CCAdv and WA Contact Centers panes.
- Column Chooser for Frontline Advisor now has the appearance and functionality of the Contact Center Advisor Column Chooser. Agents also use Column Chooser, which replaces the Configure pane on Agent Advisor.

Major enhancements in Advisor Suite functionality for Release 8.1.2

- Removal of Administrative Partitioning (replaced by functionality in RBAC).
- Support for role-based access control (RBAC)—Access to business objects, hierarchies, and metrics is now controlled using roles and permissions that are created in Genesys Configuration Manager, and whose configuration is completed in the Advisors Administration module. RBAC replaces the Administrative Partitioning feature of the previous release.

- Further integration with Genesys Management Framework, including management of user profiles, functionality permissions, and creation of business objects.
- A new Advisors Migration wizard supports CCAdv/WA business objects and FA metrics migration.
- Improved internal support for Stat Server load balancing—The relationship between a statistic and the Stat Server pair against which it is requested is now maintained during refresh or restart of the Adapter. Statistics continue to be requested from the same Stat Server(s) after an Adapter refresh or restart as was used prior to the restart. Genesys Adapter no longer depends on the value set for the Stat Server old-stats-remove-interval option.
- When you install Frontline Advisors (FA), you can now specify a Persons folder in Configuration Manager to be the root for the FA hierarchy. If you specify a Persons folder as the root, the hierarchy is read and loaded from that Persons folder at FA (re)start and when you use the reload feature.
- The FA Manager Console supports features of JAWS Standard version 11, an accessibility interface for users with visual impairment. Keyboard shortcuts can be used in conjunction with screen reader accessibility software (JAWS) as an alternative to the standard browser navigation.
- The Data Manager feature is implemented in this release. The Data Manager feature provides support for multiple Genesys and Cisco Adapters and load balancing across multiple adapters using the same data source (in a single Genesys environment).
- Support for Genesys Stat Server 8.1.
- Support for logging of changes made in the Administration module.
- A threshold's direction is now established on a per-threshold basis, rather than on a per-metric basis.
- Support for multilingual templates for e-mail in German, English, or both languages.
- Full compatibility with Adobe Flash version 11.
- Support for Genesys PSDK 8.1.
- Updates to Contact Center Advisor – Mobile Edition make it compatible with Advisors Platform release 8.1.2 and with Contact Center Advisor/Workforce Advisor release 8.1.2.

Note: Contact Center Advisor-Mobile Edition Release 8.1.2 maintains the features and functionality of the 8.1.1 Mobile Edition product. CCAdv-ME does not include features introduced in Advisors Platform and Contact Center Advisor Release 8.1.2.

Major enhancements in Advisor Suite functionality for Release 8.1.1

- Administrative Partitioning—A partition is a means by which Advisors objects can be grouped into business areas for the purposes of administration.
- Significantly updated Administration user interface, which permits more flexible configuration.
- User authentication through the Configuration Server.
- Hierarchy management through the Configuration Server for Frontline Advisor.
- Metric Graphing enhancements for Contact Center Advisor.
- Additional time profiles for Frontline Advisor.
- Support for MS SQL 2008.
- Support for Oracle.
- Support for capacity rule metrics.
- Metric filtering (ability to add filters on a per-metric basis as distinct from a per-object basis).
- Additional agent group metrics.
- Implementation of Genesys system requirements.

Major enhancements in Advisor Suite functionality for Release 8.0

- UI enhancements in the CCAdv, WA, FA, and AA dashboards, including:
  - Updated Dashboards to match the Genesys look and feel.
  - Introduction of a new Alerts pane.
  - Redesign of the Column Chooser.
  - Simultaneous display of metrics from different time periods on the CCAdv and WA dashboards.
- Support for multimedia metrics (Web chat and e-mail) has been added.
- Custom metrics have been introduced, allowing the customer to configure certain sets of metrics based on their business needs.
- Users can now save their metric selections using the Metric Libraries functionality. This allows users to quickly switch between different views on the CCAdv and WA dashboards.

Major enhancements in Advisor Suite functionality for Release 3.3

- Support for virtual agent groups that utilize the logged-in script as part of the group definition.
- Normalization of metrics between CCAdv and WA.
- Introduction of Metric Graphing. This feature allows users to see trends in certain metrics over an extended period of time.
- Dashes are now displayed for metrics for a particular object where those metrics cannot be retrieved from the data source from which the object came.

Important Migration Information

- You must migrate Advisors database schemas incrementally. For example, you cannot migrate directly from release 8.0 to 8.1.2. To migrate from release 8.0 to 8.1.2, you would:
  a. Migrate from release 8.0 to release 8.1.0.
  b. Migrate from release 8.1.0 to release 8.1.1.
  c. Migrate from release 8.1.1 to release 8.1.2.

  Your installation package contains the migration scripts and tools you require. Run the migration scripts in sequential order. You must manually run each migration script; it is not automated. If you use Oracle databases, you must use SQLPlus. If you use Microsoft SQL Server, you can use Microsoft SQL Server Management Studio, or the application of your choice, to run the scripts.

  After you run a migration script, and if there are no errors, then start the next script, if more than one is required. Always check the Release Notes, and the migration Readme file included with your Installation Package, for any additional instructions about running the scripts for each release.
- Genesys does not recommend migrating any of the data sources at the time of Genesys Performance Management Advisors migration. If you need to migrate any of the data sources to a more recent release, do so either before you start or after you successfully complete the Advisors migration.
- Ensure you successfully complete the Genesys Performance Management Advisors migration of all components before configuring or enabling any new feature.
- Privileges associated with Role-Based Access Control for Advisors, introduced in Release 8.1.2, are not defined in any existing Advisors role in the Configuration Server settings. If you are migrating from Advisors Release 8.1.1, an administrative user must update existing roles, or create new roles, and add the privileges to allow the described access or activity.

- Beginning in Release 8.1.3, additional privileges for role-based access control are introduced. When migrating to Release 8.1.3, the new privileges are not defined in any existing Advisors role in the Configuration Server settings. After successful migration to Release 8.1.3, an administrative user must update existing roles or create new roles and add the privilege to allow the relevant access or activity.
- Beginning in Release 8.1.5, the AGA configuration database is not required because the data moves to Advisors Platform and Genesys Configuration Server. Ensure you understand the changes before migrating. See "Object Migration Wizard" on page 1735 in this document, and review the Data Manager information in the *Performance Management Advisors Deployment Guide*.
- The FA database objects moved to the Platform database in Release 8.5.0. An option to transfer the FA database to the Platform database is included in the Object Migration Wizard in Release 8.5.0 to assist you with the transition. See "Migrating the Advisors Suite – 8.5 Releases" on page 1731 and "Object Migration Wizard" on page 1735 of this guide.

Migration

This section contains two migration procedures:

"Migrating the Advisors Suite – 8.1 Releases" on page 1726

"Migrating the Advisors Suite – 8.5 Releases" on page 1731

Read the procedure relevant to your migration before you begin to ensure that you are fully prepared to perform all the steps.

Procedure: Migrating the Advisors Suite – 8.1 Releases

Start of procedure

1. Ensure that all the external prerequisites are in place (see "Supporting Software Components").
2. Upgrade your database software, if required.

3. Uninstall the previous version of each application from the server.

Note: The previous installation must be completely removed by deleting or renaming its installation directory.

Genesys recommends that you uninstall the Windows services for the Advisors CCAdv XML Generator and Advisors Suite Server (that is, the Platform Server) before you rename or delete the installation directory. Uninstalling the Windows services requires files that are in the installation directories you are going to delete or rename.

If the migration fails and you must roll back to the previous version, changing the directory name to the original name suffices.

4. Migrate the databases. In release 8.5.0, this includes deprecating schemas. In earlier releases, the Advisors suite required three schemas. Starting in release 8.5, the suite requires only two. As part of the database migration, you will remove the third schema's data. It is very important to migrate the databases in the order listed here.

Notes:
- To migrate users held in the 3.3, 8.0, or 8.1.0 Advisors database to the Genesys Configuration Manager, run the User Migration Utility *before* migrating the Platform database. If you run the User Migration Utility to move users to the Configuration Manager as part of a general migration to Release 8.1.2, it is not necessary to run it again as part of a migration from Release 8.1.2 to Release 8.1.3. If you have new users, simply add them in Configuration Manager either before or after the successful migration to Release 8.1.3.
- To migrate configuration objects held in Advisors databases in releases prior to 8.1.2 to the Genesys Configuration Manager, run the Advisors Object Migration Wizard. Genesys recommends that you run the Object Migration Wizard to migrate metrics after executing the last FA migration database script.

a. Migrate the AGA metrics databases (not required for migration to release 8.1.5). The AGA metrics database must be migrated before any other.

Important Information for Release 8.1.5

Starting in Release 8.1.5, source metric definitions and statistics templates that were previously stored in the Advisors Genesys Adapter (AGA) database move to Advisors Platform tables. Configured objects and filters that were previously stored in the Advisors Genesys Adapter database move to Genesys Configuration Server.

If you are migrating from Advisors release 8.1.4 to release 8.1.5, you must use the release 8.1.5 metrics database creation script to recreate the AGA metrics schema (you do not run a migration script):

i. Delete the AGA metrics database(s):
- MSSQL:
  DROP DATABASE <metrics_database_name>
- ORACLE:
  DROP USER <metrics_database_user> CASCADE

ii. Recreate the AGA metrics database(s) using the 8.1.5 database schema script:
- MSSQL:
  gc_metrics_newdb_<version>.sql
- Oracle:
  gc_metrics_new_<version>_Schema.sql

iii. If you use Oracle, you must grant access privileges to the Platform database user account (the Advisors User account) to access the new AGA metrics database(s).

iv. If the new AGA metrics database has a name different from the previous database, ensure you change the name in the LINKED_SERVER column of the Advisors Platform ICM_DATABASE table.

b. Migrate the Platform database.

If supplied in your installation package, the platform post-install script should not be executed immediately after you apply the migration script. If the migration script issues a recommendation to apply the post-install script, apply it after you have installed all components. See Step 9.

c. Migrate the AGA configuration databases (not required for migration to release 8.1.5).

Important Information for Release 8.1.5

The AGA configuration database is not required in Release 8.1.5 because the data moves to Advisors Platform and Genesys Configuration Server. However, you must maintain the AGA configuration database from previous releases until you complete all migration work for Release 8.1.5. After a successful upgrade to Release 8.1.5, you can delete the AGA configuration database.

d. Migrate the Frontline Advisor database if you use this product.

Note: Thresholds and rules that use overrides, and were configured prior to 8.1, cannot be migrated to 8.1.1. The FA database generates errors to the log file when using the 8.1 to 8.1.1 migration script to migrate the FA database. Before you run the 8.1 to 8.1.1 migration script for the FA database, execute the following queries to remove threshold and rule overrides and to allow creation of the indexes:

- DELETE FROM FA_Violations
- DELETE FROM FA_Thresholds WHERE IsGlobal = 0
- DELETE FROM FA_Rules WHERE IsGlobal = 0

Run the preceding queries immediately before running the migration script (fa-database-migration-8.1-to-8.1.1.sql).

e. Migrate the Advisors Cisco Adapter database if you use FA with a Cisco source.

f. Migrate the Metric Graphing database if you use CCAdv/WA.

The script for the Metric Graphing database is included in the CCAdv/WA installation package (IP). Unlike other Advisors components, there is no script for the Metric Graphing database that includes the word “migration” or “migrate” in the filename; you use the Metric Graphing script that is included in the IP for both new installations and for migration.

5. Install the Platform service (Geronimo).
6. Install the core service for the Adapter(s) you have installed.

   If you are installing Release 8.1.5, migrate source metric definitions templates, statistics templates, and configured objects and filters from the AGA database to the Platform database and to Configuration Manager using the Advisors Object Migration Wizard *before* you install the AGA core service.

   To install an Adapter core service, run the installation `jar` file for the release to which you are migrating and ensure the option to install the service is selected as part of the server installation. For detailed information, see the *Performance Management Advisors Deployment Guide*.

7. Optionally, install Contact Center Advisor, Workforce Advisor, CCAdv XML Generator, Resource Management, and Frontline Advisor.

Notes:
- Resource Management is not available in a Cisco-only configuration.
- XML Generator is required only for Contact Center Advisor to function. XML Generator is not used in the WA application, although XML Generator must run at least one cycle immediately after you install it. This is necessary to generate a set of views used by CCAdv and WA to access metrics data sources.
  XML Generator also loads metadata during this cycle: names of switches, applications, agent groups, and the relationships among them, which are subsequently used in CCAdv and WA configuration.
- If you install a new version of Contact Center Advisor in an environment that uses Contact Center Advisor – Mobile Edition, first uninstall Mobile Edition, install the new Contact Center Advisor software, and then re-install Mobile Edition software. Starting in Release 8.1.5, CCAdv–ME does not have a standalone installation file; it is an optional module included in the CCAdv installation file.

8. Make any additional configuration changes required.
   For example, if you changed memory allocations in your original Advisors installation, you must reconfigure those settings after migration. The settings revert to default values when you re-install the Advisors suite during a migration.
   For detailed information, see relevant component chapters in the *Performance Management Advisors Deployment Guide*. If you use Contact Center Advisor – Mobile Edition with a release earlier than 8.1.5, see *Performance Management Advisors Contact Center Advisor – Mobile Edition Deployment Guide*.

Applying the Post-Installation Script for Release 8.1.5

9. Apply the post-install script, if required; apply the script only if the platform migration script issued such a recommendation. The purpose of the post-install script is to re-map existing object filters to the new filter IDs that are stored in the Genesys Configuration Server starting in release 8.1.5. To apply the post-install script, do the following:

   After you install CCAdv/WA and AGA for CCAdv components, start all related services and wait for a successful run of several cycles with AGA delivering data. Once this is complete, stop the services and apply the platform post-install script that is supplied in the installation package.

Release 8.1.5 Migration

10. After you have confirmed a successful upgrade to release 8.1.5, you can delete the AGA configuration database.

End of procedure

Procedure: Migrating the Advisors Suite – 8.5 Releases

Start of procedure

1. Ensure that all the external prerequisites are in place (see "Supporting Software Components").
2. Upgrade your databases, if required.
3. Uninstall the previous version of each application from the server.

> **Note:** The previous installation must be completely removed by deleting or renaming its installation directory.
>
> Genesys recommends that you uninstall the Windows services for the Advisors CCAdv XML Generator and Advisors Suite Server (that is, the Platform Server) before you rename or delete the installation directory. Uninstalling the Windows services requires files that are in the installation directories you are going to delete or rename.
>
> If the migration fails and you must roll back to the previous version, changing the directory name to the original name suffices.

4. Migrate the databases. It is very important to migrate the databases in the order listed here.
   a. Migrate the AGA metrics databases. The AGA metrics database must be migrated before any other.

Important Information for Release 8.5.0

To migrate to release 8.5.0, you use scripts supplied by Genesys to remove old objects and then add new objects to the Advisors Genesys Adapter metrics database. Genesys provides two scripts for Oracle and one for MS SQL. See the following:

Migration of AGA Oracle METRICS Schema

i. Connect as the METRICS user.

ii. Execute `gc_metrics_<version>_ObjectsDrop.sql`.

iii. Execute `gc_metrics_new_<version>_ObjectsPlus.sql`.

Migration of AGA MS SQL Databases

i. Connect to the AGA metrics database.

ii. Execute `gc_metrics_newdb_<version>.sql`.

b. Ensure you grant `Select` permissions for all AGA Metrics views to Advisors Platform.

c. Make a backup of the Platform schema. Ensure that the backup can be successfully restored. Compare the restored and the original schema to ensure that they are identical.

d. Migrate the Platform database. For detailed information about which scripts to run and when, see the `Readme-advisors-platform-migrate.txt` file included in your Installation Package.

8.5.0 FA Migration Procedure

e. If you use Frontline Advisor in your enterprise, perform the following Steps in the order listed to migrate FA database content to the Platform database and to migrate FA metrics from release 8.1.5 to 8.5.0.

i. Run the Object Migration Wizard to transfer the 8.1.5 FA database content to the Platform database after you migrate the Platform database.

ii. Manually remove the FA metrics business attribute values before using the Object Migration Wizard to migrate FA metrics data. In Configuration Manager, the values are under the default tenant. The path is `Business Attributes\Advisors Metrics\Attribute values\Frontline Advisor`.

iii. Run the Object Migration Wizard to migrate the FA metrics. In release 8.5.0, the metrics will be migrated from the Platform database (they were transferred here as part of Step i) to the Genesys Configuration Server.

f. Migrate the Advisors Cisco Adapter database if you use FA with a Cisco source.

g. Migrate the Metric Graphing database if you use CCAdv/WA.

The script for the Metric Graphing database is included in the CCAdv/WA installation package (IP). Starting in release 8.5.0, the script to migrate the Metric Graphing database includes the word "migrate" in the filename.

5. Install the Platform service (Geronimo).

6. Install the core service for the Adapter(s) you have installed.

To install an Adapter core service, run the installation `jar` file for the release to which you are migrating and ensure the option to install the service is selected as part of the server installation. For detailed information, see the *Performance Management Advisors Deployment Guide*.

7. Optionally, install Contact Center Advisor, Workforce Advisor, CCAdv XML Generator, Resource Management, and Frontline Advisor.

Notes:
- Resource Management is not available in a Cisco-only configuration.
- XML Generator is required only for Contact Center Advisor to function. XML Generator is not used in the WA application, although XML Generator must run at least one cycle immediately after you install it. This is necessary to generate a set of views used by CCAdv and WA to access metrics data sources.
  XML Generator also loads metadata during this cycle: names of switches, applications, agent groups, and the relationships among them, which are subsequently used in CCAdv and WA configuration.
- If you install a new version of Contact Center Advisor in an environment that uses Contact Center Advisor – Mobile Edition, first uninstall Mobile Edition, install the new Contact Center Advisor software, and then re-install Mobile Edition software. Starting in Release 8.1.5, CCAdv–ME does not have a standalone installation file; it is an optional module included in the CCAdv installation file.

8. Make any additional configuration changes required.
   For example, if you changed memory allocations in your original Advisors installation, you must reconfigure those settings after migration. The settings revert to default values when you re-install the Advisors suite during a migration.
   For detailed information, see relevant component chapters in the *Performance Management Advisors Deployment Guide*.

End of procedure

Advisors Migration Utilities

There are two Advisors migration utilities:

- User Migration Utility – For migration from Advisors 3.3, 8.0, 8.1.0 to 8.1.1. See “User Migration Utility” on page 1734.
- Object Migration Wizard – For migration from Advisors 8.1.1 to 8.1.2 and higher. See “Object Migration Wizard” on page 1735.

When to run the migration utilities

In general, you run the migration utilities, as required, after you have migrated your databases. If there are specific requirements for use of the migration utilities, those requirements are included in the migration procedures in this

chapter (see "Migrating the Advisors Suite – 8.1 Releases" on page 1726 and "Migrating the Advisors Suite – 8.5 Releases" on page 1731).

The User Migration Utility is used only when moving to release 8.1.1; the utility moves the Advisors users from the Advisors Platform database to the Genesys Configuration Server.

The Advisors Object Migration wizard can migrate objects and metrics; you choose options in the wizard to migrate objects of your choice. You use the Object Migration wizard only when migrating to release 8.1.2 or later. The options available to you in the wizard differ by release; the data that the wizard can move from Advisors Platform to Configuration Server is release-dependent.

User Migration Utility

Starting in Advisors release 8.1.1, user configuration functionality moves to the Genesys Configuration Manager.

The User Migration Utility is packaged with the Advisors Platform distribution starting in release 8.1.2. The utility allows migration of Advisors users from the 3.3, 8.0, or 8.1.0 Advisors Platform database to Genesys Configuration Manager.

The migration tool migrates user and contact records along with user's module access information from the 3.3, 8.0, or 8.1.0 Advisors Platform database to Configuration Manager.

Specifically the following user information is migrated:

- User name
- Password
- First name
- Last name
- Email
- Employee ID
- Whether the user is an agent or not
- User's module access information
- User's role information

The utility contains a `ReadMe.txt` that summarizes the use of the tool and the procedure to run the tool.

Procedure: Running the User Migration Utility

Purpose: To migrate users held in the 3.3, 8.0, or 8.1.0 Advisors database to the Genesys Configuration Manager.

Prerequisites

- Before you run the user migration utility, ensure you have a supported version of Java installed and `JAVA_HOME` is added to system classpath.
- The supplied Configuration Manager user must have Read, Create and Change permissions on the selected tenant.

Start of procedure

1. Extract the `user-migration-util-<version>.zip` file from the `advisors-platform-distribution-<version>.zip/ip/supplement` folder.
2. Go to the `conf` folder in the extracted directory and edit `migration.properties`. Follow the configuration comments in the file and enter the configuration values. Save the file.
3. Open the command prompt and change to the directory where the `migration.bat` file is extracted.
4. Run the following command on the command prompt: `migration.bat`
5. When the migration is complete, review the log for errors or warnings.

End of procedure

Object Migration Wizard

With the introduction of role-based access control (RBAC) beginning in release 8.1.2 (see the *Performance Management Advisors Contact Center Advisor/Workforce Advisor Administrator User's Guide*), many configuration objects moved to the Genesys Configuration Manager.

Note: Be aware of any new privileges added to Advisors after release 8.1.2. Those new privileges have never been defined in any existing Advisors role in the Configuration Server; they cannot be migrated using a migration utility. To use new privileges added to Advisors after release 8.1.2, an administrative user must update existing roles or create new roles and add the privilege to allow the described access or activity.

In release 8.1.2 and later, many of the objects you use to configure the Advisors modules exist in Genesys Configuration Server. That is, what you see in Genesys Configuration Server is what you have to build your Advisors configuration. You use the Advisors Object Migration Wizard to automate the migration of objects from databases to Configuration Server. Any object you will require in your configuration must be either migrated from an earlier release using the Object Migration Wizard, or you must manually create the objects in Configuration Manager.

You can select only one option at a time for migration, but you can run the migration tool as many times as required to migrate all objects and metrics.

The Advisors Object Migration Wizard is packaged with the Advisors Platform distribution.

Migration Paths

In general, migration of CCAdv/WA metrics data is a required step of your Contact Center Advisor/Workforce Advisor migration, but migration of other CCAdv/WA objects is optional. If you use Frontline Advisor, migration of FA metrics data is a required step. See below for additional release-specific information.

All releases

The following migration options are provided by the installer for all Advisors releases that use the Object Migration Wizard:

- Migrating the Frontline Advisors metrics data – The FA migration path involves exporting the FA metrics from the FA database to the Configuration Server. Only those FA metrics that are not present in Configuration Server are migrated.
- Migrating the Contact Center Advisor/Workforce Advisor data – The CCAdv/WA option migrates the following:
  - Metrics for both CCAdv and WA.
  - Metadata records of contact centers, application groups, and regions (geographic, reporting, and operating units).
  - User permission records for contact centers and application groups.
  - Module access privileges of the existing users. Although this option is placed under CCAdv/WA migration path, it migrates the module privileges for all the Advisors components.

Release 8.1.5

Starting in Release 8.1.5, the AGA configuration database is not required. The AGA configuration database data moves to Advisors Platform and Genesys Configuration Server. To transfer the data correctly, the Object Migration Wizard includes a `Genesys Adapter Configuration Migration` option that moves:

- AGA source metric definitions and statistics templates to the Platform database
- configured objects and filters to the Configuration Server.

For detailed information about this option and the removal of the AGA configuration database (advisors_genadptdb), see the *Performance Management Advisors 8.1 Deployment Guide* for releases 8.1.2 and later. See “Migrating the Advisors Suite – 8.1 Releases” on page 1726 for details about running the Object Migration Wizard to move the AGA configuration database data.

Release 8.5.0

Starting in release 8.5.0, FA no longer has a standalone database. The FA database content moves to the Advisors Platform database. The Object

Migration Wizard includes an option in release 8.5.0 to move the FA database content to the Platform database (`Frontline Advisor Database Transfer`). If you use FA, you must run the FA options in the Object Migration Utility in this order:

1. Frontline Advisor Database Transfer
2. Frontline Advisor Metrics

More information is available in the Procedure: Migrating the Advisors Suite – 8.5 Releases, on page 1731.

Procedure: Running the Object Migration Wizard

Prerequisites

- Ensure a supported version of Java is installed.
- If you must run the user migration utility, ensure you run it before running the object migration wizard.
- If you are migrating from release 8.1.5 to 8.5.0, the database migration scripts must be executed before running this wizard.
- The Configuration Server user supplied must have read, create, and change permissions on the selected tenant.

Start of procedure

1. Extract the file `advisors-migration-wizard-<version>.jar` from the `advisors-platform-distribution-<version>.zip/ip/supplement` folder.
2. Open the command prompt and change to the directory where the file `advisors-migration-wizard-<version>.jar` is extracted.
3. Run the following command:
   `java -jar advisors-migration-wizard-<version>.jar`
   The migration wizard launches; click `Next`.
4. Select the migration path and click `Next`.

   You can select only one migration option in a single run of the wizard, but you can run the wizard as many times are necessary to complete your migration. For more information about each migration option, go to the relevant procedure:
   - Procedure: Using the Contact Center/Workforce Advisor Objects Migration Option, on page 1738
   - Procedure: Using the Frontline Advisor Metrics Migration Option, on page 1739 (*for migration to release 8.1.5 only)*

- Procedure: Using the Genesys Adapter Configuration Migration Option, on page 1740Procedure: Using the Frontline Advisor Database Transfer Migration Option, on page 1741 (*for migration to release 8.5.0 only)*

End of procedure

Procedure: Using the Contact Center/Workforce Advisor Objects Migration Option

Purpose: To migrate Contact Center Advisor/Workforce Advisor objects and metrics. You can also migrate existing module access privileges using this option; although this option is placed under the CCAdv/WA migration path, it migrates the module privileges for *all* Advisors components.

Start of procedure

1. Select the items you want to migrate from the Advisors database. You can select more than one item at a time, but the following rules apply:
   - You must migrate your CCAdv/WA metrics, but migration of other data and objects is optional.
   - You must migrate contact center objects before you can migrate contact center permissions.
   - You must migrate application groups before you can migrate application group permissions.

   Click `Next`.
2. Select the type of database you use in your enterprise.

   If you select Oracle, the wizard also prompts you for the following information:
   - Oracle setup – Select the option that describes your environment:
     - Select the `Basic` option if you use a single-instance Oracle database.
     - Select the `RAC connectivity setup` option if you use Oracle RAC.
   - Oracle JDBC driver location

   Click `Next`.
3. The `Migration Source Database` screen prompts for connection details for the Platform database.

   After you enter your information on the screen, click `Next`.
4. Enter details about the Genesys Configuration Server to which selected objects are to be migrated. Click `Next`.

   The `Installation Progress` screen displays.

5. If required, check the details you have entered by using the `Show Details` button. When the details are correct, click `Install` to proceed with the migration.
6. When the migration is complete, review the log for errors or warnings.

End of procedure

Procedure: Using the Frontline Advisor Metrics Migration Option

Purpose: To migrate Frontline Advisor metrics and data. If you are migrating from FA release 8.1.5 to 8.5.0, you must run the `Frontline Advisor Database Transfer` migration option before you run the `Frontline Advisor Metrics` migration option.

> **Note:** To migrate module access privileges, you must run the `Contact Center/Workforce Advisor Objects` migration option; although the option to migrate module access privileges is placed under the CCAdv/WA migration path, it migrates the module privileges for all Advisors components.

Start of procedure

1. Select the type of database you use in your enterprise.

   If you select Oracle, the wizard also prompts you for the following information:

   - Oracle setup – Select the `Basic` option if you are using a single-instance Oracle database. Select the `RAC connectivity setup` option to connect to Oracle RAC.
   - Oracle JDBC driver location

   Click `Next`.
2. For migration to releases up to – and including – release 8.1.5, the `Migration Source Database` screen prompts for connection details for the Frontline Advisor database.

   For migration to release 8.5.0, you must enter connection details for the Advisors Platform database on the `Migration Source Database` screen.

   After you enter your information on the screen, click `Next`.
3. Enter details about the Genesys Configuration Server to which selected objects are to be migrated.

   Click `Next`.

   The `Installation Progress` screen displays.

4. If required, check the details you have entered by using the `Show Details` button. When the details are correct, click `Install` to proceed with the migration.
5. When the migration is complete, review the log for errors or warnings.

End of procedure

Procedure: Using the Genesys Adapter Configuration Migration Option

Purpose: Starting in release 8.1.5, the AGA configuration database is no longer used. The `Genesys Adapter Configuration Migration` option is available to migrate from Advisors release 8.1.4 to release 8.1.5. The tool also supports migrating from Release 8.1.3 to 8.1.5, but source metrics added for Frontline Advisor in Release 8.1.4 are not migrated. The option migrates data from the Advisors Genesys Adapter configuration database to the Advisors Platform database and Genesys Configuration Server, as required. See the *Performance Management Advisors 8.1 Deployment Guide* for additional information.

Prerequisites

- Create the Object Configuration User before running the `Genesys Adapter Configuration Migration` option; the migration option prompts you for the Object Configuration User information. See the *Performance Management Advisors 8.1 Deployment Guide* for details about the Object Configuration User.
- For best results, Genesys recommends that you configure the following permissions for the Configuration Server user you will specify in the migration wizard (Step 4 on page 1741):
  - `Change Permissions` access permissions to update the security permissions of the monitored objects.
  - `Change` access permission to update the annex properties of the monitored objects.
  - `Create` and `Change` access permissions to create and update business attributes.

Start of procedure

1. Select the type of database you use in your enterprise.

   If you select Oracle, the wizard also prompts you for the following information:

- Oracle setup – Select the `Basic` option if you are using a single-instance Oracle database. Select the `RAC connectivity setup` option to connect to Oracle RAC.
- Oracle JDBC driver location

Click `Next`.

2. The `Migration Source Database` screen prompts for connection details for the AGA configuration database.

   Enter your information, and click `Next`.

3. The `Migration Destination Database` screen prompts for connection details for the Platform database.

   Enter your information, and click `Next`.

4. Enter details about the Genesys Configuration Server to which selected objects are to be migrated. See Prerequisites on page 1740 for important information about the Configuration Server user.

   The `Config Server Name` is the name of the application (for example, confserver).

   Click `Next`.

5. Enter the Object Configuration User you configured for Data Manager.

   Click `Next`.

   The `Installation Progress` screen displays.

6. If required, check the details you have entered by using the `Show Details` button. When the details are correct, click `Install` to proceed with the migration.

7. When the migration is complete, review the log for errors or warnings.

End of procedure

Procedure: Using the Frontline Advisor Database Transfer Migration Option

Purpose: Starting in release 8.5.0, Frontline Advisor data is stored in the Advisors Platform database. The `Frontline Advisor Database Transfer` option is available to migrate from Advisors release 8.1.5 to release 8.5.0 only. To migrate from FA release 8.1.5 to 8.5.0, you must migrate the FA data from the FA database to the Platform database *before* you migrate the metrics (run the `Frontline Advisor Database Transfer` migration option before you run the `Frontline Advisor Metrics` migration option).

Start of procedure

1. Select the type of database you use in your enterprise.

   If you select Oracle, the wizard also prompts you for the following information:

   - Oracle setup – Select the `Basic` option if you are using a single-instance Oracle database. Select the `RAC connectivity setup` option to connect to Oracle RAC.
   - Oracle JDBC driver location

   Click `Next`.

2. The `Migration Source Database` screen prompts for connection details for the Frontline Advisor database.

   Enter your information, and click `Next`.

3. The `Migration Target Database` screen prompts for connection details for the Platform database.

   Enter your information, and click `Next`.

4. The `Database Schema Names` screen prompts for the name of the source database schema that you are migrating (that is, the FA database schema), as well as the name of the target database schema (the schema in the Platform database) to which you are migrating.

   Enter your information, and click `Next`.

   The `Installation Progress` screen displays.

5. If required, check the details you have entered by using the `Show Details` button. When the details are correct, click `Install` to proceed with the migration.

6. When the migration is complete, review the log for errors or warnings.

End of procedure

Part

28 intelligent Workload Distribution (iWD) Migration

The chapters in this section describe the migration process of iWD from release 8.0 to 8.1, release 7.6.x to 8.1, and release 7.6.x to 8.0. They also describe component changes and the other Genesys software that supports and enables iWD functionality.

This part contains the following chapters:

- Chapter 84, "Migration Order for intelligent Workload Distribution," on page 1745 discusses preliminary migration procedures and migration order.
- Chapter 85, "Changes in Components and Configuration Objects," on page 1749 provides information that you need to upgrade components and configuration options.
- Chapter 86, "Migration Procedures," on page 1757 describes detailed migration procedures.

Chapter

84 Migration Order for intelligent Workload Distribution

This chapter includes the preliminary migration procedures and the migration order for intelligent Workload Distribution (iWD) 8.1 and 8.0.

There are three main sections in this chapter:

Preliminary Migration Procedure

This section provides information that you should be familiar with before beginning migration.

For an overview of migration issues, see the "Migration Roadmap" chapter of this guide.

Note: If you intend to upgrade your operating system before migrating your Genesys product, contact Professional Services.

The migration process includes these preliminary procedures:

1. Review the "Migration Roadmap" chapter of this guide.
2. Examine component changes for iWD. See Chapter 85 on page 1749.

> **Note:** These sections describe the changes that directly affect migration of this product only. For more high-level information about what's new in intelligent Workload Distribution 8.1, see the "New in this Release" section in the "Overview" chapter of the *iWD 8.1 Deployment Guide*.

3. Review the licensing requirements. Although iWD has no licensing requirements, there may be licensing requirements for associated products in the deployment, such as third-party speech engines or other Genesys components. For more information about Genesys licensing requirements, see the information about licensing migration in the "Licensing Migration" chapter of this guide.
4. Check the interoperability of the components of iWD during the upgrade procedures. See "Interoperability Among iWD Components" on page 1746.

See also the following reference materials:

- *Genesys Licensing Guide* for information on licensing.
- See the *Genesys Interoperability Guide* for information about interoperability.
- The following documents for the relevant versions of iWD:
  - *Deployment Guide*
  - *WebSphere MQ Capture Adapter API Reference Manual*

Interoperability Among iWD Components

The term *interoperable* means that different versions of Genesys solutions, components, or options can work together compatibly during the migration process.

Interoperability of Genesys products can occur at two levels of migration:

- **Interoperability at the suite level** means combining different versions of solutions and options during the migration process.
- **Example:** You can migrate to the Configuration Management Layer of Framework 7.2 while still using 6.x or 7.0 components. See the *Genesys Interoperability Guide* for information about interoperability.
- **Interoperability at the solution-specific level** means combining different versions of the components of a particular solution while upgrading them sequentially during the migration process.

  The mixture of components may include the executables, applications, routing strategies, scripts, and data that compose a particular solution.

As you upgrade each of the components in sequence, you will need to know if it is backward-compatible with the other components of iWD.

This section provides answers to this important question.

Compatibility Between iWD and Genesys Framework

Genesys 8.0 and iWD 8.1

iWD 8.1 is compatible with all Genesys 8.1 components. Note that Interaction Server 8.1.2 (or later) must be used with iWD 8.1. iWD 8.1 is not supported with earlier versions of Interaction Server.

Genesys 8.0 and iWD 8.0

iWD 8.0 is compatible with all Genesys 8.0 components. Note that Interaction Server 8.0.100.20 (or later) must be used with iWD 8.0. iWD 8.0 is not supported with earlier versions of Interaction Server.

Genesys 7.6 and iWD 8.0

iWD 8.0 is compatible with all Genesys 7.6 components, except Stat Server and Interaction Server. iWD is compatible with release 8.0 (and above) of Stat Server and release 8.0.100.20 (and above) of Interaction Server. The iWD Stat Extensions use extended Stat Server functionality, which is available only in release 8.0 (and above) of Stat Server.

Compatibility Among Components of iWD

IWD 8.1 with iWD 8.0

iWD 8.1 and iWD 8.0 components are not compatible, with one exception; iWD Websphere MQ Capture Point 8.0 works with iWD 8.1.

iWD 8.0 with iWD 7.6.x

The iWD runtime instance consists of multiple modules, and for each runtime instance those modules must be of the same release, such as all modules 8.0.

However, during migration, you may run two runtime instances in parallel; for example, one 7.6 runtime instance and one 8.0 runtime instance. Then, after migration is finished, the 7.6 iWD runtime instance must be stopped, and then removed.

Chapter

85 Changes in Components and Configuration Objects

This section provides information that you need to upgrade components and configuration objects from iWD release 7.6.1 to iWD 8.0 and 8.1. This section only discusses changes (additions, deletions, and modifications) in the product that you may need to address during the migration process. The product documentation for each release contains a comprehensive list of changes from release to release, in the overview chapters in the Deployment Guide.

This chapter contains the following sections:

Changes to Services

This section describes major changes that have been made to iWD Services. For more details about each service, including the configurable properties, refer to the *iWD 8.1 Deployment Guide*.

Note: A subset of iWD Services can be migrated from iWD 7.6.1 to iWD 8.0 or 8.1. However, some of them will require some additional manual configuration, such as Capture Points. DataMart Services in iWD 8.0 or 8.1 do require any configuration changes.

Table 320 lists changes to iWD services between iWD 7.6.1 and iWD 8.0 and 8.1.

Table 320: iWD Service Changes from 7.6.1 to 8.x

Service Name	Type of Change	Notes
Logging Service	No change	
Database Service	No change	The Database Service is configured only for iWD Data Mart only. In iWD 7.6.1, the Database Service is also used for the iWD Runtime Database. The 7.6.1 Runtime Database is no longer used in iWD 8.x.
Audit Service	Removed in 8.0.	
Message Queue Service	Removed in 8.0.	
Generic Capture Point	Added in 8.0.	In iWD 8.1, a new type of service template, that is used whenever an Interaction Server Integrated Capture Point is added to an iWD Solution. The Generic Capture Point ensures that the interactions (tasks) that are captured through the Integrated Capture Point are visible in the iWD Global Task List, can be referenced within iWD business rules, and tracked properly within the iWD Data Mart.
Webservice Capture Point	Changed in 8.0 and 8.1	All capture points have new properties. Refer to the *Genesys intelligent Workload Distribution 8.1(or 8.0) Deployment Guide* for information about the properties.
Websphere MQ Capture Point	Changed in 8.0 and 8.1	All capture points have new properties. For information about the properties, see the *Genesys intelligent Workload Distribution 8.1 (or 8.0) Deployment Guide*. **Note:** In iWD 8.1, there is no longer a separate WebSphere MQ Capture Point, because the JMS Capture Point already has the capability to connect to any WebSphere MQ Server that you might have. For more information about how the JMS Capture Point is supported in iWD 8.1, see Appendix B in the *Genesys intelligent Workload Distribution 8.1 Deployment Guide*.

Table 320: iWD Service Changes from 7.6.1 to 8.x (Continued)

Service Name	Type of Change	Notes
Database Capture Point	Changed in 8.0 and 8.1.	All capture points have new properties. For information about the properties, see the *Genesys intelligent Workload Distribution 8.1 (or 8.0) Deployment Guide.*
JMS Capture Point	Removed in 8.0	The JMS Capture Point is not included in iWD 8.x, but is supported as an Integrated Capture point in Interaction Server 8.0.2 and later. For more information, see the Genesys eServices 8.0 or 8.1 documentation.
Distribution Point	Removed in 8.0.	In iWD 8.x, tasks are stored in Interaction Server as soon as they are captured. There is no longer a separate distribution step. Distribution points can still be configured for reporting purposes by using a `distributionPoints` lookup table. For more information, see the *Genesys intelligent Workload Distribution 8.1 (or 8.0) Deployment Guide*.
Configuration Server Connector	Changed in 8.0.	Connection properties are now configured globally per iWD Manager instance in the `iwd.properties` file.
Interaction Server Connector	Changed in 8.0	Genesys tenant mappings are now configured globally per iWD tenant. Genesys application mapping is configured globally per iWD Runtime Node.
Synchronization Service	Removed in 8.0	Tasks are now stored in Interaction Server as soon as they are captured. There is no intermediate iWD database with which to synchronize.
T-Server Connector	Removed in 8.0.	Statistics are now delivered to Stat Server by using the Stat Server Java Extension mechanism which does not require an intermediate T-Server.
Statistics Adapter	No longer available in 8.0.	Replaced by iWD Stat Server Java Extension. In iWD 8.x, the Extended Statistics Service is now called Statistics Adapter.
Simulator Distribution Point	Removed in 8.0.	
Simulator Assigner	Removed in 8.0.	
Simulator Completer	Removed in 8.0.	

Table 320: iWD Service Changes from 7.6.1 to 8.x (Continued)

Service Name	Type of Change	Notes
Archiving Service	Removed in 8.0.	Archiving logic is now implemented by a combination of the iWD Business Process and the Business Context Management Service.
Classification Service	Removed in 8.0.	Classification logic is now implemented by a combination of the iWD Business Process and the Business Context Management Service.
Prioritization Service	Removed in 8.0.	Prioritization logic is now implemented by a combination of the iWD Business Process and the Business Context Management Service.
Business Context Management Service	New in 8.0.	This service implements rule execution logic for classification, prioritization, and archiving. The Business Context Management Service is exposed as an ESP service and invoked by Interaction Server based on routing strategies in the iWD Business Process.
Rules Service	No change	
Scripting Service	No change	
Kettle ETL Service	No change	
Scheduled ETL Job	No change	
Extended Statistics Service	No longer available in 8.0.	In iWD 7.x, Statistics Adapter was known as Extended Statistics Service. It was renamed in 8.0 and its functionality is now implemented by using the iWD Stat Server Java Extension.
Dashboard	Removed in 8.0.	

Changes to Applications

This section describes major changes that have been made to the applications that must be configured in Configuration Server for iWD 8.0 and 8.1. For detailed information about each application, see the *Genesys intelligent Workload Distribution 8.1 Deployment Guide*.

Table 321 lists changes to Genesys `Applications` between iWD 7.6.1 and iWD 8.0 and 8.1

Table 321: iWD Application Changes from 7.6.1 to 8.0

iWD 7.6.1 Application	iWD 8.0 Application	Type	Notes
Configuration Server Connector	iWD Manager	Third Party Application	In iWD 8.x, the application is now configured globally per iWD Manager instance, not each Configuration Server Connector. The iWD Manager application must have a connection to Interaction Server.
Interaction Server Connector	iWD Runtime Node	Third Party Server	In iWD 8.x, the application is configured globally per iWD Runtime Node, not each Interaction Server Connector. The iWD Runtime Node application must have a connection to Interaction Server.
T-Server Connector	N/A		The T-Server Connector is obsolete in iWD 8.x.
N/A	Business Context Management Service	Third Party Server	The application's host must be the same as the host of the iWD Runtime Node on which the Business Context Management Service will be deployed. The Business Context Management Service application must be added to Interaction Server's list of connections.

Changes to Task Attributes

This section describes major changes that have been made to Task Attributes in iWD 8.0 and 8.1. For detailed information about Task Attributes, see the *Genesys intelligent Workload Distribution 8.1 Deployment Guide*.

Table 322 lists changes to Task Attributes between iWD 7.6.1 and iWD 8.0 and 8.1.

Table 322: Application Changes from 7.6.1 to 8.x

Attribute	Status	Notes
id	Updated	The Task ID value type is string in iWD 8.x, and the attribute corresponds to the interaction ID in Interaction Server. In iWD 7.6.1, the value type was integer.
distributionId	Removed	The same as id in iWD 8.x.
batch	Removed	Not supported in iWD 8.x

Table 322: Application Changes from 7.6.1 to 8.x (Continued)

Attribute	Status	Notes
mediaType	New	This attribute represents the media type of the task's interaction in Interaction Server.
status	Updated	In iWD 8.x, the Held status is used instead of the NewHeld status. The Queued status is now used instead of the Distributed status.

Changes to Rule Templates

This following changes have been made to the iWD Rule Templates between iWD 7.6.1 and iWD 8.0 and 8.1:

- The `$task` object has been replaced with the `$data` object, which is an instance of the `KeyValueCollection` class (from Platform SDK) that contains the interaction's attached data attributes.
- iWD core attributes are prefixed with `IWD_`. For example, the following expression retrieves the process ID:

  ```
  $data.getString("IWD_processId")
  ```

  The corresponding expression in iWD 7.6.1 would be:

  ```
  $task.getProcessId()
  ```
- iWD extended attributes are prefixed with `IWD_ext_`.
- Custom attributes have no prefix.

  Note: In iWD 7.6.1, attribute names were automatically prefixed with iwd_data. Note that in iWD 8.x, prefixes are not automatically added.

- There are a number of helper functions (such as `getStringValue`) in the Standard Rule Template that simplify the manipulation of attributes. Refer to the Standard Rule Template to see the helper functions.

Note: If your iWD 7.6.1 solution includes *custom* rule templates, then all of the expressions will need to be updated in iWD 8.x. The Standard Rules Template is fully backward compatible with iWD 7.6.1.

Changes to Rules

iWD 7.6.1 rules are compatible with iWD 8.x. However, any iWD 7.6.1 rules that map to distribution points will have to be updated.

Changes to the Rules Engine

Starting in 8.1.0, iWD is integrated with Genesys Rules System (GRS), which consists of three software components: Genesys Rules Development Tool, Genesys Rules Authoring Tool, and Genesys Rules Engine.

This integration between iWD and GRS led to the following changes:

- Business rule templates are now created and edited in the Genesys Rules Development Tool, an Eclipse-based GUI. They are no longer created in iWD Manager.
- Business rules are now created and edited through the Genesys Rules Authoring Tool, which can be launched from iWD Manager through a single-sign on mechanism. They are no longer authored within iWD Manager.
- Any change made to the business structure (Solution, Department, and/or Process) that is created and modified through iWD Manager must now be *pushed* to the Genesys Rules System. This is done through an option in iWD Manager.
- The iWD business process (IWDBP) is now updated to integrate with the Genesys Rules Engine.

Changes to iWD Data Mart

The following changes have been made to iWD Data Mart between iWD 7.6.1 and iWD 8.0 and 8.1:

- In granular task facts, `task_id` (integer) has been replaced with `interaction_id` (varchar).
- In granular task facts, `current_distribution_id` and `distribution_id` have been replaced with `interaction_id`.

Note: Refer to the *iWD 8.1 Data Mart Reference Guide* for more information about iWD Data Mart.

Chapter

86 Migration Procedures

This chapter discusses the migration procedures from iWD 8.0 to 8.1 and from iWD 7.6 to 8.0, in the following sections:

Migrating from iWD 8.0 to 8.1 (Including GRS)

Follow these migration procedures to migrate your iWD solution from 8.0 to 8.1.

Summary of Procedures

This section outlines the task flow for upgrading the iWD 8.0 solution to iWD 8.1, which includes the installation of the Genesys Rules System 8.1.1 and an upgrade to Genesys Interaction Server 8.1.2 (optional, but recommended). The procedure itself provides instructions for Microsoft Windows.

1. Install the Genesys Rules System (GRS) 8.1.1 components—Genesys Rules Engine (GRE), Genesys Rules Authoring Tool (GRAT), and Genesys Rules Development Tool (GRDT).
2. Configure a Script object for use by several rule parameters of the iWD 81 Standard Rules Template.
3. Run the GRS migration tool to migrate your iWD 8.0 rule templates and business rules into the GRS 8.1.1 format, as well as to migrate your iWD Solution's business structure into Genesys Configuration Server. Using the GRDT, import any migrated rule templates into the GRDT/Eclipse workspace as projects.

4. Upgrade iWD 8.0 to 8.1.0 by uninstalling all existing 8.0 components and installing new 8.1.0 components.
5. Import the iWD Standard Rules Template that is provided with iWD Manager 8.1.0 into the GRDT, and compare with the version of the iWD Standard Rules Template that was produced by the GRS migration tool. Update the migrated iWD Standard Rules Template as necessary.
6. Using the GRAT, review your migrated rule package and make any necessary updates. Deploy your rule package to GRE.
7. Using iWD Manager 8.1.0, take several steps that will automatically update your iWD configuration database, the Interaction Server databases, and some related Configuration Server objects. Import the latest XML configuration files provided with iWD 8.1.0. Deploy your iWD Solution.
8. Import the updated IWDBP business process that is provided with iWD 8.1.0. Update it according to your business requirements.
9. Update one existing List object in Genesys Configuration Server that is used by IWDBP, and create a second one.
10. Optionally, upgrade Interaction Server to 8.1.2 by uninstalling the previous version and installing the latest version. (This step is recommended.)
11. Test your entire solution by putting some tasks into the system.

Procedure: Migrating iWD from 8.0 to 8.1

Purpose: To upgrade entire iWD 8.0 solution to an iWD 8.1.0 solution, including all related components.

Warning! It is critical to follow the steps in the procedure, to install GRS and run the GRS migration utility before upgrading the iWD components. After iWD Manager 8.1 is launched and the database upgrade is perfomed on the iWD configuration database, the iWD 8.0 rule templates and business rules configuration will be lost. Therefore, it is imperative to run the GRS migration utility first, to migrate this rules configuration to GRS, prior to launching iWD Manager 8.1.

Start of procedure

1. Stop your application server.

Install GRS 8.1.1

2. Install all the components of the Genesys Rules System (GRS) 8.1.1 by using the installation instructions that are described in the *Genesys Rules System 8.1 Deployment Guide* (See steps 1to 6, and 8 of the Task Summary at the beginning of Chapter 2). In summary, you will complete the following steps:
   a. Create the GRS repository.
   b. Ensure that you have a JDBC connector for your particular database server, installed in the appropriate directory of your application server. (For example, if you are using Tomcat and Microsoft SQL Server 2005, you will need to have `sqljdbc4.jar` in the `[Tomcat home directory]\lib.`)
   c. In Genesys Administrator or Configuration Manager, create applications for the GRE, GRAT Server, and GRAT Client.
   d. Make sure your GRAT Server application has an association both to your Environment tenant and to any child tenants you are using with iWD.
   e. Some options are required for the GRE and GRAT Server applications to function properly with iWD. These options are provided with the application templates that come with GRS 8.1.1. However, if you are working in an environment with a pre-existing installation of GRS, check the following two options, and add or edit them, if necessary:

      Genesys Rules Engine

      Section: `settings`

      Option: `sequential-mode`

      Value: `false`

      Genesys Rules Authoring Tool Server

      Section: `settings`

      Option: `group-by-level`

      Value: `true`
   f. Install the GRE, GRAT, and GRDT Installation Packages. As described in the *Genesys Rules System 8.1 Deployment Guide,* you will need to install either Eclipse or Genesys Composer before installing the GRDT, since it is an Eclipse plug-in.
   g. Deploy the GRAT and GRE web applications to your application server. This step includes starting your application server to extract the `.war` files.

      The GRS Rules repository database is initialized automatically.
   h. Start your application server.

i. Launch Composer or Eclipse and open the `Template Development` perspective, which is the Genesys Rules Development Tool. Go to `Windows > Preferences > Genesys Rules System` to configure connections to the Configuration Server and to the GRS repository, and then, close Composer (or Eclipse).

> **Note:** Step 7 of the installation task summary in the *Genesys Rules System 8.1 Deployment Guide* mentions that you will need to create your Business Structure in Configuration Server. Do not perform that step, because the GRS migration utility takes care of that for you in a later step in this procedure.

Run GRS Migration Tool

3. Run the Genesys Rules System migration tool. The purpose of the migration tool is to migrate the following files and data:
   - The existing iWD Business Structure (`Solution > Departments > Processes`) to Configuration Server
   - iWD business rule templates to GRS
   - iWD business rules to GRS

> **Note:** The Genesys Rules Authoring Tool Server and Genesys Rules Authoring Tool Client, as well as the GRS repository, must already be installed and configured, prior to running the GRS migration tool, because the migration tool writes to the GRS repository.

The migration utility and its supporting files can be found in the following directory under your application server's `webapps` directory:
`\webapps\genesys-rules-authoring\WEB-INF\iwdmigrate\`

You must edit several of the supporting files in that directory. To complete this task, following these steps:

a. If it is running, stop the application server that is running GRS components.

Create Generic Migration Applications

b. Using Genesys Administrator or Configuration Manager, create two new applications, to be used for the GRS migration only—one application of type, `Genesys Generic Server` and one application of type, `Genesys Generic Client`. You might have to create application templates for these applications if they do not already exist in your environment.
   - For the `Genesys Generic Client Application`:
     — Give it a meaningful name, such as `GRSRuleClient`, and save the application. No additional configuration is necessary.
   - For the `Genesys Generic Server Application`:
     — Give it a meaningful name, such as `GRSMigrationTool`.

- Go to `Server Info > Tenants` and add the Environment tenant and any child tenants that map to the iWD managedtenants, for which you will be migrating rules configuration.
- To select the host on which this server application is running, modify the `Host` parameter.
- Add a Listening Port.
- For the Working Directory and Command Line properties, enter any dummy value (for example, `x`) and save the application.
- Uncheck the `Log On As SYSTEM` checkbox and for the `Log On Account` property, select a user that is a member of the `SYSTEM` access group, or any other user who has full permissions to the Scripts folders of both the Environment and child tenants in your configuration environment.

Note: If you are configuring this by using Genesys Configuration Manager, you must save the application first, and then open it again, to view the `Security` tab and complete this step.

- Optionally, add a `log` section to the `Options` tab, specifying log options by following the example of other standard Genesys applications.
- Save the application.

Edit XML Files

c. Edit the `bootstrapconfig.xml` file, which is located under the GRS migration tool (see "Run GRS Migration Tool" on page 1760):

- Inside the `<cfgserver>` tag, replace the example Configuration Server host name with the host name of your Configuration Server. Also, edit the port number if it does not already match the listening port of your Configuration Server (for example, 2020).
- Inside the `<application id="iwd.migration">` tag, replace the value for the `<cfgappname>` parameter with the name of the `Genesys Generic Server Application` you created in the previous step (for example, `GRSMigrationTool`).
- Inside of the `<application id="brs.gui.client">` tag, replace the value for the `<cfgappname>` parameter with the name of the `Genesys Generic Client Application` (for example, `GRSMigrationClient`). Replace the values for the `<cfgusername>` and `<cfgpassword>` parameter with the username and password of a user that has permission to create the following objects:
  - Business Units (sometimes referred to as Configuration Units)
  - Sites folders under your tenant

— Script objects under your child tenant and the Environment tenant.

If you are using Configuration Server version 8.0.2 or higher, which supports Roles, the specified user must also belong to a Role with full privileges to the Genesys Rules System Authoring Tool Server application. If you do not want to put the username and password in this file, you can specify them when you execute the migration tool.

Specify Connection to iWD Database

d. To specify the connection parameters to the iWD 7.6.1 configuration database, edit the `hibernate.cfg.xml` file:

- To specify the driver for your database server, edit the `<property name="hibernate.connection.driver_class">` value. (For example, `com.microsoft.sqlserver.jdbc.SQLServerDriver`.)
- To specify the URL for your iWD 8.0 configuration database, edit the `<property name="hibernate.connection.url">` value. (For example, `jdbc:sqlserver://localhost:1433;databaseName=IWD_CONFIG`.)
- To specify the username and password for the iWD configuration database, edit the `<property name="hibernate.connection.username">` and `<property name="hibernate.connection.password">` parameters.

e. Optionally, to define logging parameters, edit the `log4j.properties` file. Default logging is to the `stdout` file.

f. Optionally, edit the `mapping.xml` file. This file contains information about how to map iWD 7.6.1 actions and conditions to iWD 8.1.0 actions and conditions. The wording of some actions and conditions has changed between iWD 7.6.1 and 8.0. You must modify this file if you have translated your templates to another language.

g. To run the migration tool, open a command (`cmd`) prompt, change the directory to where the `iwd_migrate.cmd` file is located (`\webapps\genesys-rules-authoring\WEB-INF\iwdmigrate\`), and execute the `wd_migrate.cmd` file. This command file executes the MigrationTool.class without any parameters. The complete syntax for the MigrationTool.class is:

```
MigrationTool <user id> <userpassword> <8.1 Standard Rules Template file name>
```

Where:

— `<user id>` is the user ID that is used to log in to Configuration Server. If this parameter is missing or is a blank string then, the `cfgusername` and `cfguserpassword` parameter values must have been specified in the `bootstrapconfig.xml` file.

— `<8.1 Standard Rules Template file name>` is the name of the `.xml` file that contains the iWD 8.1 Standard Rules template. This parameter is ignored if the migration is from iWD 8.0. This parameter is required if the migration is from iWD 7.6.1.

If you are logging to the `stdout` file (the command window), the migration might take up to several minutes to complete.

Warning! Modifications in the iWD 8.0.0 standard rule templates will not be migrated.

If you have made modifications in the standard rules template, you can either:

- Move the added conditions, actions, functions and/or parameters to your custom rules template under the managed tenant (please check the modifications before proceeding with migration): or;
- Migrate the rules packages as-is and perform these modifications later in the GRDT tool. If you do this you will also need to update your migrated rules in GRAT.

Genesys recommends avoiding modification of the standard rules template regardless of version and implementing the additional logic in the custom rules template.

Test Results of Migration

If the migration completes successfully, you should see the following results:

- In Genesys Administrator or Configuration Manager, under your tenant you should see a Business Structure folder. Within that folder you should have a folder with the name of your iWD Solution (matching what you would see in iWD Manager), and within that folder you should have subfolders for each Department and Process from your iWD Solution.
- In Genesys Administrator or Configuration Manager, within the Scripts folder under the Environment tenant, you should see a Template Access Control folder which contains an object that corresponds to the migrated iWD Standard Rules template. You should also see a Rule Parameter Profiles folder which contains an object of type, Data Collection that will be used by the iWD Standard Rules Template to read data from the iWD configuration database. Under your child tenant, in the Scripts folder, you should see a Template Access Control folder with Script objects that correspond to each custom rule template that was migrated.
- In GRDT, you should see all of the migrated rule templates in the GRS Server Explorer. To connect to the GRS Server Explorer, you must start your the application server (that is running the GRS applications), if it is not already running.

- In GRAT, under your tenant you should see your iWD solution, under which you should see a migrated rule package with a name similar to your iWD solution name. Any blank spaces in your iWD solution name will be replaced by periods. For example, if your iWD solution is called ACME Solution, the rule package that is created by the migration utility will be `acme.solution`.
- The `distributionPoints.xml` file is created in the `iwdmigrate/` directory. This file contains definitions of distribution points.

After the migration has been successfully completed, you can delete the `Genesys Generic Server` and `Genesys Generic Client Applications` you created in Step 3b on page page 1760, if desired.

Edit Migrated Rule Templates

4. Eventually, you will want to edit to the rule templates that you migrated into the GRS rules repository. You must import these into the GRDT itself, thereby, creating Eclipse projects for each rule template. You can do this by using the GRS Server Explorer in GRDT:
   a. Right-click on the template name, and select `Import`.
   b. Use the wizard to give the template project a name, or keep the existing name.
   c. To create the template project, click `Finish`.
   d. Repeat steps Steps 4a to 4c for each rule template you want to import.
5. Using the GRDT in the iWD Standard Rules Template, double-check that the following database rule parameters are associated with the `iWD Manager DB Connection Profile` script that was created by the GRS Migration Tool:
   - `distributionPoint`
   - `capturePoint`
   - `taskChannels`

Backup iWD 8.0 Configuration

6. Using your database administration console, back up your iWD 8.0 configuration database.

   Tip: Genesys strongly recommends you backup your iWD 8.0 configuration database. Doing so enables you to roll back to the previous version of the iWD database and restore your solution to its previous state.

7. Using iWD Manager 8.0, export your iWD 8.0 configuration for both the system tenant and any managed tenants you are using.

   This will not only serve as a precaution in case you need to roll back this process later, but could also be useful as a reference later when you are reviewing your migrated business rules in GRAT.
8. If it is running, stop the application server (that is running GRS applications).

Uninstall iWD 8.0

9. Uninstall all iWD 8.0 components, except for the iWD Stat Extensions:
   - iWD Capture

- iWD Data Mart
- iWD Manager
- iWD Runtime
- iWD Rules
- iWD Setup Utility

10. If you modified the originally-installed iWD 8.0 `log4j` properties files, make a backup of the following files on your application server. (The example shown here are for Tomcat.) If you did not modify these files, you are not required to back them up:
    - `\webapps\iwd_manager\WEB-INF\classes\log4j*.properties`—There are three properties files that define logging information for iWD.
    - `\webapps\iwd_node\WEB-INF\classes\log4j*.properties`—There are three properties files that define logging information for iWD.
11. Delete or uninstall the `iwd_node` and `iwd_manager` web applications from your application server's `webapps` directory.

Install iWD 8.1

12. Install the iWD 8.1 Installation Packages:
    - iWD Manager—Creates a new `iwd_manager` web application in your application server's `webapps` directory.
    - iWD Runtime—Creates a new `iwd_node` web application in your application server's `webapps` directory.
    - iWD Data Mart
    - iWD Setup Utility—It is not necessary to install the iWD Setup Utility, because it caters to the initial setup of iWD objects, and not upgrades from previous versions. However, you might want to install it now if you intend to add new Solutions to your iWD environment in the future. Otherwise, you can install it later, if needed.

    Note: iWD 8.1.x no longer includes the iWD Capture and iWD Rules Installation Packages.

13. If you backed up of the `log4j*.properties` files in Step 10 on page 1765, copy those backup files to their original location on your application server, replacing the new versions that were installed with the new `iwd_manager` and `iwd_node` web applications.
14. Start up your application server.

Import Standard Rules Template

15. Import the iWD Standard Rules Template that is included with iWD 8.1 into the GRDT:
    a. In the `GRDT > Eclipse Project Explorer`, right-click and select `Import`.
    b. In the Import Wizard, expand the `General` folder and select `Existing Projects Into Workspace`.
    c. Click `Next`.

d. Select the `Select root directory` checkbox, and browse to the `[iWD Manager Installation Directory]\ruleTemplates\` directory.

e. Select the `iWD_Standard_Rules` folder.

f. Click `Finish`.

You should now see the `iWD_Standard_Rules` project in the `GRDT > Eclipse Project Explorer`.

g. To publish the `iWD_Standard_Rules` to the GRS Repository, right-click on the project name in the `Project Explorer` and selecting `Publish`.

16. Launch a web browser and log in to the Genesys Rules Authoring Tool at: `http://[webApplicationServerHost]:[webApplicationServerPort]/genesys-rules-authoring/login.jsp`

17. Select your migrated rules package from the navigation tree and provide a Business Name.

18. If you did not customize the IWD Standard Rules Template in iWD 8.0 (that is, if you created one or more custom rule templates for any new rule conditions or actions you required), then you should be able to replace the `iWD_Standard_Rules_Migrated` template with `iWD_Standard_Rules` in your migrated rule package.

- If you customized the iWD Standard Rules Template in iWD 8.0, then you will either need to keep the `iWD_Standard_Rules_Migrated` template that is associated with your migrated rule package, or compare the *Migrated* version of the iWD Standard Rules Template with the version that was provided with iWD 8.1.0, and add missing parameters, conditions, and actions to the `iWD_Standard_Rules` template project and republish it to the GRS Repository.
- If you decide that it is ok to replace the `iWD_Standard_Rules_Migrated` template with `iWD_Standard_Rules` in your migrated rule package, then you should do that now, by selecting the rule package in the GRAT navigation tree, checking the box next to the `iWD_Standard_Rules` project, and unchecking `iWD_Standard_Rules_Migrated`. Save your changes.
- Optionally, you can now delete the `iWD_Standard_Rules_Migrated` project from your `GRDT >Eclipse` workspace.

19. Go through and select each rule (linear and decision table) at the Rule Package, Department, and Process level, and select `Validate` from the GRAT menu in the lower-left corner of the working pane. Make any syntax changes to the rules, as necessary, saving each rule you change.

    Note: Archive functionality has been changed significantly in iWD 8.1.1 (see the Deployment Guide). If you have migrated your solution from iWD 8.0 to iWD 8.1.1, please note that iWD 8.1.1 archiving no longer supports the `Archiving` phase in rules. If you have archiving rules in your rule set, please review them and move them to either the `Classification` or the `Prioritization` phase as necessary.

20. After you have validated all your rules, deploy your rule package:
    a. In the GRAT navigation tree, click the `Deploy Rules` node.
    b. Click `Deploy Now`.
21. Log out of the GRAT.

Upgrade iWD Configuration DB

22. Log in to iWD Manager at:
    `http://[webApplicationServerHost]:[webApplicationServerPort]/iwd_manager/ui/login.jsf`
    a. When you see the on-screen message: `Database init/upgrade required`, click `DB init/upgrade`.
    b. On the next screen, click `Create/Upgrade Database`.
    This updates your iWD configuration database for use with iWD 8.1.
    c. While in the `System` tenant, navigate to `General > Import/Export`, browse to the folder where you installed the iWD Manager 8.1 supporting files, and import two configuration XML files from the `config` directory—`iwd.xml` and `iwd_media_icons.xml`.
    After each of these imports you should see the message `Import completed successfully` in the `Messages` pane.

    Note: The structure of these XML configuration files has changed between iWD 8.0 and 8.1. There are a couple of implications of this change. First, there is a `reporting.xml` file, which is in the `config` directory where your iWD Data Mart 8.1 supporting files are installed. It contains sample Metric Templates only. For a new installation, you might consider importing this, but it is not necessary to import for an upgrade. Second, after upgrading to iWD 8.1 you will still see an iWD Rules module listed in iWD Manager. This is no longer used, because the Business Context Management Service component is now part of the iWD Core module in iWD 8.1, and can therefore, be safely ignored.

d. Navigate to your iWD managed tenant and select `General > Import/Export`.

e. Browse to the folder where you installed the iWD Manager 8.1 supporting files and import the `iwd_media_icons.xml` file.

f. Select `Services` and expand your solution in the navigation tree.

g. Click the `Configure Ixn Custom Properties` node.

A list of `Mapping errors` is displayed.

Note: In iWD 8.1, a set of additional attributes is added to the existing Interaction Server database that was used for iWD 8.0. It does not change any existing attributes. Therefore, it is not necessary to backup the existing Interaction Server interactions and event log databases, even if you decide to roll back to iWD 8.0.

h. Click `Configure Ixn Custom Properties`.

iWD Manager will make the appropriate updates to the Interaction Server and Interaction Server Event Log databases, and create any missing or out-of-date `Business Attributes` and `Event Log Database Access Point Application` options.

i. Click `Refresh`.

If no `Mapping Errors` are displayed, the updates were successful.

j. Restart the Interaction Server if it was running.

k. Navigate to the `General > Profile` screen of your managed tenant.

l. Enter a value for the Genesys Rules Authoring Tool URL property.

The value will be the URL you used in Step 16 on page 1766 to launch GRAT, without the `login.jsp` at the end.

m. Click `Save`.

n. To deploy your iWD Solution, select `Services` and expand your solution.

o. Select the `Deploy Solution` node and then click `Deploy Solution`.

Note: If Interaction Server is not running, you will see an error message next to the `Interaction Server Connector` service in your solution, on the `Services` status screen that appears after deployment. This is normal.

p. Log out of iWD Manager.

Update IWDBP Business Process

23. iWD 8.1 is shipped with a modified version of the IWDBP business process, which is described in an appendix of the *Genesys intelligent Workload Distribution 8.1 Deployment Guide*. Therefore, you must delete the existing IWDBP from your configuration and import the new version provided with iWD 8.1. However, most customers will have modified

IWDBP in some way for use with their iWD 8.0 solution. Therefore, you should export and/or rename your existing IWDBP and any of the routing strategies you might have modified in the version of IWDBP that you have been using. Also, you must review the new iWD 8.1 version of IWDBP carefully and add back in, any modifications you want to retain, to meet your business requirements.

24. Using Interaction Routing Designer, import the new `iwdbp.wie` file from `[iWD Manager installation directory]\config`.

    After you import this file and save the changes, IRD updates your Genesys Configuration Server with the new version of the IWDBP business process and new versions of the other two iWD-related business processes—ABC IWD Simple BP and Standard Genesys to iWD Adapter.

25. After the IWDBP business process configuration objects are created, open the business process in Interaction Routing Designer and confirm that the IWDBP process is there. Make any updates necessary, based on your business requirements. When you are done, be sure that all the routing strategies are activated.

Update Existing List Object

26. Modify one existing List object, and create one additional List object, that are both necessary for the IWDBP business process to function. See the section, "Configuration of List Objects", Appendix C in the *Genesys intelligent Workload Distribution 8.1 Deployment Guide*.
    a. Modify the existing `List Iwd_Esp_List`.
    b. Change the name of the `ESPServerList` section to `BCMSServerList`.
    c. Add another section to the List called `GREServerList`, with a single option Name/Value pair, where the option name is set to the runtime ID of your iWD Solution (the same value that should already exist in the option under the `BCMSServerList` section) and the option value is the name of your `Genesys Rules Engine Application` in Configuration Server.
    d. Create a new List called `Iwd_Package_List`, with a single section called `RulePackageList`, with a single option Name/Value pair, where the option name is set to the runtime ID of your iWD Solution and the option value is the name of your migrated rule package (for example, `acme.solution`).

Upgrade Interaction Server

27. Optionally, upgrade your Interaction Server to the latest version that is provided with iWD 8.1. While this is not strictly necessary, it is highly recommended for the following reasons:
    - It gives you the benefit of any defect fixes and performance improvements that have been introduced in Interaction Server.
    - It provides you with new versions of all the iWD capture points that have now been integrated into Interaction Server and are the preferred method of capturing tasks into iWD. (For more information, see the chapter about Integrated Capture Points in the *Genesys intelligent Workload Distribution 8.1 Deployment Guide*.)

- It provides an enhancement that allows tasks to be completed, canceled, updated, held, and restarted through an iWD capture point—even when the task is assigned to an agent. This is provided through a new option of Interaction Server 8.1.2 called `enable-revoke-from-agent`. The option must be added to the `settings` section on the `Options` tab of the Interaction Server application, and the value must be set to `true`. For more information, see the *Genesys eServices 8.1 Reference Guide.*

If you require step-by-step instructions for upgrading Interaction Server, see the Genesys *eServices 8.1 Deployment Guide.*

Specify IS Connection to GRS

28. On the `Connections` tab of the `Interaction Server Application`, add a connection to the `Genesys Rules Engine Application`.

Test iWD Solution

29. You are now ready to test your migrated iWD Solution. If they are not already running, start up your `Interaction Server` (and corresponding DB Server) and `Universal Routing Server Applications`, and your application server.

As described in previous steps, confirm that you have:

- Deployed your iWD Solution to the application server
- Deployed your migrated rules package to the application server
- Activated the routing strategies in the IWDBP business process
- Created the necessary List Objects for IWDBP

Put a task into the system through any iWD capture point and use the Global Task List to observe whether the task is processed as you expect, with the business rules taking effect to classify, prioritize, and reprioritize the task correctly.

End of procedure

Migrating from iWD 7.6.1 to 8.1 (Including GRS)

Follow these migration procedures to migrate your iWD solution from 7.6.1 to 8.1.

Summary of Procedures

This section outlines the task flow for upgrading the iWD 7.6.1 Solution to iWD 8.1, which includes the installation of the Genesys Rules System 8.1.1 and an upgrade to Genesys Interaction Server 8.1.2 (optional, but recommended). The procedure itself provides instructions for Microsoft Windows.

1. Install the Genesys Rules System (GRS) 8.1.1 components—Genesys Rules Engine (GRE), Genesys Rules Authoring Tool (GRAT), and Genesys Rules Development Tool (GRDT).
2. Configure a Script object for use by several rule parameters of the iWD 81 Standard Rules Template.
3. Run the GRS migration tool to migrate your iWD 7.6.1 rule templates and business rules into the GRS 8.1.1 format, and to migrate your iWD Solution's business structure into Genesys Configuration Server. Using the GRDT, import any migrated rule templates into the GRDT > Eclipse workspace as projects.
4. Upgrade iWD 7.6.1 to 8.0 by installing the iWD 8.0 components on a temporary host to migrate the iWD configuration and existing tasks to 8.0 format.
5. Upgrade iWD 7.6.1 to 8.1 by uninstalling all existing 7.6.1 / 8.0 components and installing new 8.1 components.
6. Import the iWD Standard Rules Template that is provided with iWD Manager 8.1.0 into the GRDT and compare it with the version of the iWD Standard Rules Template that was produced by the GRS migration tool. Update the migrated iWD Standard Rules Template, as necessary.
7. Using the GRAT, review your migrated rule package and make any necessary updates. Deploy your rule package to GRE.
8. Using iWD Manager 8.1, complete the steps that will automatically update your iWD configuration database, the Interaction Server databases, and some related Configuration Server objects. Import the latest XML configuration files that are provided with iWD 8.1. Deploy your iWD Solution.
9. Import the IWDBP business process that is provided with iWD 8.1. Update it as necessary, to meet your business requirements.
10. In Genesys Configuration Server, update one existing List object that is used by IWDBP, and create a second one.
11. Optionally, upgrade Interaction Server to 8.1.2 by uninstalling the previous version and installing the latest version. All Capture Points are integrated in Interaction Server 8.1.2. See “Upgrade Interaction Server” on page 1769.
12. Test your entire solution by putting some tasks into the system.

How the Migration of Configuration Data Works

The background information in this section is provided to help you understand how the iWD 7.6.1 configuration data is migrated to the iWD 8.1 Solution. Thereby, enabling you to plan your migration to suit your business needs.

The iWD 8.1 Configuration database does not contain any rules definitions. Technical (services) and business (departments and processes) definitions only are stored in the database.

When migrating from iWD 7.6.1 to iWD 8.1, the following processes occur:

- Rules are read directly from the iWD 7.6.1 database and then, transformed and loaded into GRS repository.
- The Business structure (or Contracts, which are called Departments and Processes in iWD 8.1.x) is read from the iWD 7.6.1 configuration database and then, replicated in the Configuration Server under the appropriate tenant.
- The technical configuration is exported from iWD 7.6.1 to the XML file, this file is then migrated to the iWD 8.0 format, by using the migration tool from the iWD 8.0 installation.
- The migrated iWD 7.6.1 configuration is then imported into a clean iWD 8.0 installation.
- iWD 8.1 is installed. iWD Manager 8.1 is connected to the iWD 8.0 configuration database, which is then upgraded to the iWD 8.1 format.
- Rules are reviewed and updated, if necessary.

Procedure: Migrating iWD from 7.6.1 to 8.1

Purpose: To upgrade entire iWD 7.6.1 Solution to an iWD 8.1 Solution, including all related components.

Warning! It is critical to follow the steps in the procedure, to install GRS and run the GRS migration utility before upgrading the iWD components.

Start of procedure

1. Stop your application server.

Install GRS 8.1.1

2. Install all the components of the Genesys Rules System (GRS) 8.1.1 by using the installation instructions that are described in the *Genesys Rules System 8.1 Deployment Guide* (See steps 1to 6, and 8 of the Task Summary at the beginning of Chapter 2). In summary, you will complete the following steps:
   a. Create the GRS repository.

b. Ensure that you have a JDBC connector for your particular database server, installed in the appropriate directory of your application server. (For example, if you are using Tomcat and Microsoft SQL Server 2005, you will need to have `sqljdbc4.jar` in the `[Tomcat home directory]\lib`.)

c. In Genesys Administrator or Configuration Manager, create applications for the GRE, GRAT Server, and GRAT Client.

d. Make sure your GRAT Server application has an association both to your Environment tenant and to any child tenants you are using with iWD.

e. Some options are required for the GRE and GRAT Server applications to function properly with iWD. These options are provided with the application templates that come with GRS 8.1.1. However, if you are working in an environment with a pre-existing installation of GRS, check the following two options, and add or edit them, if necessary:

Genesys Rules Engine

Section: `settings`

Option: `sequential-mode`

Value: `false`

Genesys Rules Authoring Tool Server

Section: `settings`

Option: `group-by-level`

Value: `true`

f. Install the GRE, GRAT, and GRDT Installation Packages. As described in the *Genesys Rules System 8.1 Deployment Guide,* you will need to install either Eclipse or Genesys Composer before installing the GRDT, since it is an Eclipse plug-in.

g. Deploy the GRAT and GRE web applications to your application server. This step includes starting your application server to extract the `.war` files.

h. Start your application server.

i. Launch Composer or Eclipse and open the `Template Development` perspective, which is the Genesys Rules Development Tool. Go to `Windows > Preferences > Genesys Rules System` to configure connections to the Configuration Server and to the GRS repository, and then, close Composer (or Eclipse).

Note: Step 7 of the installation task summary in the *Genesys Rules System 8.1 Deployment Guide* mentions that you will need to create your Business Structure in Configuration Server. Do not perform that step, because the GRS migration utility takes care of that for you in a later step in this procedure.

Run GRS Migration Tool

3. Run the Genesys Rules System migration tool. The purpose of the migration tool is to migrate the following files and data:
   - The existing iWD Business Structure (`Solution > Departments > Processes`) to Configuration Server
   - iWD business rule templates to GRS
   - iWD business rules to GRS

   Note: The Genesys Rules Authoring Tool Server and Genesys Rules Authoring Tool Client, as well as the GRS repository, must already be installed and configured, prior to running the GRS migration tool, because the migration tool writes to the GRS repository.

   The migration utility and its supporting files can be found in the following directory under your application server's `webapps` directory: `\webapps\genesys-rules-authoring\WEB-INF\iwdmigrate\`

   You must edit several of the supporting files in that directory. To complete this task, follow these steps:

   a. If it is running, stop your application server.

Create Generic Migration Applications

   b. Using Genesys Administrator or Configuration Manager, create two new applications, to be used for the GRS migration only—one application of type, `Genesys Generic Server` and one application of type, `Genesys Generic Client`. You might have to create application templates for these applications if they do not already exist in your environment.
      - For the `Genesys Generic Client Application`:
        - Give it a meaningful name, such as `GRSRuleClient`, and save the application. No additional configuration is necessary.
      - For the `Genesys Generic Server Application`:
        - Give it a meaningful name, such as `GRSMigrationTool`.
        - Go to `Server Info > Tenants` and add the Environment tenant and any child tenants that map to the iWD managedtenants, for which you will be migrating rules configuration.
        - To select the host on which this server application is running, modify the `Host` parameter.
        - Add a Listening Port.
        - For the Working Directory and Command Line properties, enter any dummy value (for example, `x`) and save the application.

— Uncheck the `Log On As SYSTEM` checkbox and for the `Log On Account` property, select a user that is a member of the `SYSTEM` access group, or any other user who has full permissions to the Scripts folders of both the Environment and child tenants in your configuration environment.

Note: If you are configuring this by using Genesys Configuration Manager, you must save the application first, and then open it again, to view the `Security` tab and complete this step.

— Optionally, add a `log` section to the `Options` tab, specifying log options by following the example of other standard Genesys applications.
— Save the application.

Edit XML Files

c. Edit the `bootstrapconfig.xml` file:

- Inside the `<cfgserver>` tag, replace the example Configuration Server host name with the host name of your Configuration Server. Also, edit the port number if it does not already match the listening port of your Configuration Server (for example, 2020).
- Inside the `<application id="iwd.migration">` tag, replace the value for the `<cfgappname>` parameter with the name of the `Genesys Generic Server Application` you created in the previous step (for example, `GRSMigrationTool`).
- Inside of the `<application id="brs.gui.client">` tag, replace the value for the `<cfgappname>` parameter with the name of the `Genesys Generic Client Application` (for example, `GRSMigrationClient`). Replace the values for the `<cfgusername>` and `<cfgpassword>` parameter with the username and password of a user that has permission to create the following objects:
  — Business Units (sometimes referred to as Configuration Units)
  — Sites folders under your tenant
  — Script objects under your child tenant and the Environment tenant.

  If you are using Configuration Server version 8.0.2 or higher, which supports Roles, the specified user must also belong to a Role with full privileges to the Genesys Rules System Authoring Tool Server application. If you do not want to put the username and password in this file, you can specify them when you execute the migration tool.

Specify Connection to iWD Database

d. To specify the connection parameters to the iWD configuration database, edit the `hibernate.cfg.xml` file:

- To specify the driver for your database server, edit the `<property name="hibernate.connection.driver_class">` value. (For example, com.microsoft.sqlserver.jdbc.SQLServerDriver.)

- To specify the URL for your iWD configuration database, edit the `<property name="hibernate.connection.url">` value. (For example, `jdbc:sqlserver://localhost:1433;databaseName=IWD_CONFIG`.)
- To specify the username and password for the iWD configuration database, edit the `<property name="hibernate.connection.username">` and `<property name="hibernate.connection.password">` parameters.

e. Optionally, to define logging parameters, edit the `log4j.properties` file. Default logging is to the `stdout` file.

f. Optionally, edit the `mapping.xml` file. This file contains information about how to map iWD 7.6.1 actions and conditions to iWD 8.1.0 actions and conditions. The wording of some actions and conditions has changed between iWD 7.6.1 and 8.0. You must modify this file if you have translated your templates to another language.

g. Log in to iWD Manager 7.6.1 and change the managed iWD tenant name to match one in Configuration Manager (because iWD and Configuration Manager tenants have a 1:1 relationship in iWD 8.0.) For example, before migration, the iWD managed tenant is called `Production Tenant` and the CME tenant is called `Standard`. Therefore, you must rename the iWD managed tenant from `Production Tenant` to `Standard`.

h. To run the migration tool, open a command (`cmd`) prompt, change the directory to where the `iwd_migrate.cmd` file is located (`\webapps\genesys-rules-authoring\WEB-INF\iwdmigrate\`), and execute the `wd_migrate.cmd` file. This command file executes the MigrationTool.class without any parameters. The complete syntax for the MigrationTool.class is:

```
MigrationTool <user id> <userpassword> <8.1 Standard Rules Template file name>
```

Where:

— `<user id>` is the user ID that is used to log in to Configuration Server. If this parameter is missing or is a blank string then, the `cfgusername` and `cfguserpassword` parameter values must have been specified in the `bootstrapconfig.xml` file.

— `<8.1 Standard Rules Template file name>` is the name of the `.xml` file that contains the iWD 8.1 Standard Rules template. It is provided with GRS and is located under the `\webapps\genesys-rules-authoring\WEB-INF\iwdmigrate\` directory. This parameter is ignored if the migration is from iWD 8.0. This parameter is required if the migration is from iWD 7.6.1.

If you are logging to the `stdout` file (the command window), the migration might take up to several minutes to complete.

Test Results of Migration

If the migration completes successfully, you should see the following results:

- In Genesys Administrator or Configuration Manager, under your tenant you should see a Business Structure folder. Within that folder you should have a folder with the name of your iWD Solution (matching what you would see in iWD Manager), and within that folder you should have subfolders for each Department and Process from your iWD Solution.
- In Genesys Administrator or Configuration Manager, within the Scripts folder under the Environment tenant, you should see a Template Access Control folder which contains an object that corresponds to the migrated iWD Standard Rules template. You should also see a Rule Parameter Profiles folder which contains an object of type, Data Collection that will be used by the iWD Standard Rules Template to read data from the iWD configuration database. Under your child tenant, in the Scripts folder, you should see a Template Access Control folder with Script objects that correspond to each custom rule template that was migrated.
- In GRDT, you should see all of the migrated rule templates in the GRS Server Explorer. To connect to the GRS Server Explorer, you must start your application server, if it is not already running.
- In GRAT, under your tenant you should see your iWD solution, under which you should see a migrated rule package with a name similar to your iWD solution name. Any blank spaces in your iWD solution name will be replaced by periods. For example, if your iWD solution is called ACME Solution, the rule package that is created by the migration utility will be acme.solution.

After the migration has been successfully completed, you can delete the `Genesys Generic Server` and `Genesys Generic Client Applications` you created in Step 3b on page page 1760, if desired.

If migration has not completed successfully, analyze the migration tool output log and correct the erroneous items, then repeat the migration.

Edit Migrated Rule Templates

4. Eventually, you will want to edit to the rule templates that you migrated into the GRS rules repository. You must import these into the GRDT itself, thereby, creating Eclipse projects for each rule template. You can do this by using the GRS Server Explorer in GRDT:
   a. Right-click on the template name, and select `Import`.
   b. Use the wizard to give the template project a name, or keep the existing name.
   c. To create the template project, click `Finish`.
   d. Repeat steps Steps 4a to 4c for each rule template you want to import.
5. Using the GRDT in the iWD Standard Rules Template, double-check that the following database rule parameters are associated with the `iWD Manager DB Connection Profile` script that was created by the GRS Migration Tool:
   - `distributionPoint`
   - `capturePoint`

- `taskChannels`

6. Export your iWD managed tenant configuration to the XML file.
7. Create a new database for the iWD 8.0/8.1 configuration data.
8. Install iWD 8.0 Manager, configure it to connect to the database that you created in Step 7 of this procedure.
9. Install the rest of the iWD 8.0 components, except iWD Runtime, which is not required.
   - iWD 8.0 Capture
   - iWD 8.0 Rules
   - iWD 8.0 Datamart
10. Migrate the XML file (from Step 6) by using the iWD 8.0 migration tool:
    a. Browse to the iWD 8.0 Manager `installation` directory and then, to the `migrate` subdirectory.
    b. Execute `iwd_migrate.cmd <your_7.6.1_export.xml> <iwd8.0_config.xml>`.

       For example, `iwd_migrate.cmd acme.xml acme_migrated_to_80.xml`
11. Initialize the iWD 8.0 configuration database.

    iWD 8.1 will be installed later, and will also connect to this database.
12. Import the default XML configuration files from iWD Manager, iWD Capture, iWD Datamart, and iWD Rules into the iWD 8.0 `System` tenant.
13. Create a new managed tenant and map it to the tenant in Configuration Manager that you created when you imported the business structure and rules in earlier. (See the first bullet under “Test Results of Migration” on page 1776 of this procedure.)

14. Import the migrated iWD 7.6.1 configuration in the managed tenant you created in Step 13. Ignore any rules-related errors. In iWD 8.1.x, rules are managed by GRS...

Notes:
1. There are two types of tenants in iWD: A system tenant, which is always mapped to `Environment` in Configuration Manager and one or more managed tenants, which are mapped to the regular tenants in Configuration Manager (named `Resources` in single-tenant configurations and other non-Environment tenants in multi-tenant configurations.)
2. Due to architectural changes, Distribution Points are no longer available as services in iWD 8.0 and later releases. If you require Distribution Points (for reporting purposes), you must create a new lookup table `distributionPoints` under the `Managed` tenant. During migration of the rules, the rule migration tool will create an XML file, called `distributionPoints.xml`, which will contain a single lookup table definition with distribution-point runtime ID/distribution-point business-name pairs.

Backup iWD 7.6.1 Configuration DB

15. Using iWD 8.0 Manager, check that Departments (previously Contracts) and Processes are the same as in iWD 7.6.1.
16. Using your database administration console, back up your iWD 7.6.1 Configuration database.

Tip: Genesys recommends you backup your iWD 7.6.1 configuration database. Neither the rules migration tool nor iWD 8.x updates the iWD 7.6.1 configuration database, so this is a safety precaution—for example, in case iWD 8.0 is accidentally configured to use iWD 7.6.1 configuration database (incorrect) instead of connecting it to the new configuration database (correct).

17. In iWD 8.0 Manager, under your managed tenant, configure the services as described in the *Genesys intelligent Workload Distribution 8.0 Deployment Guide*.
    a. In Configuration Manager or Genesys Administrator, configure the iWD Runtime Node(s) by creating a dedicated `iWD Runtime Node (Third party server) Application` object for each node.
    b. Create or modify the Configuration Server connector service.
    c. Create or modify the Interaction server connector.

d. Configure the existing Capture Points by selecting the appropriate dependencies (Interaction server connector), where required.

> **Note:** The Configuration Server Connector and Interaction Server Connector Services in 7.6.1 and 8.x have different properties sets. For information about how to configure these properties, see the *Genesys intelligent Workload Distribution Deployment Guide* for each release.

e. Save the configuration changes.

f. In Configuration Manager, configure the Business Context Management service, by creating a `Business Context Management Service (Third party server) Application` object.

18. In Configuration Manager:
    a. Go to `Environment tenant > Scripts > Rule Parameter Profiles.`
    b. On the `Annex` tab, in `database` section, edit the `iWD Manager DB Connection Profile,` and point it to the iWD 8.0/8.1 configuration database.

       By default, it points to the iWD 7.6.1 configuration database.
19. If it is running, stop your application server.
20. Uninstall all of the iWD 8.0 components, except for the iWD Stat Extensions:
    - iWD Capture
    - iWD Data Mart
    - iWD Rules
    - iWD Manager
    - iWD Websphere MQ Capture
21. Delete or uninstall the `iwd_manager` web application (iWD 8.0) from your application server's `webapps` directory.

Install iWD 8.1

22. Install the iWD 8.1 Installation Packages:
    - iWD Manager—Creates a new `iwd_manager` web application in your application server's `webapps` directory.
    - iWD Runtime—Creates a new `iwd_node` web application in your application server's `webapps` directory.
    - iWD Data Mart
    - iWD Setup Utility
    - iWD Websphere MQ Capture, if necessary.

> **Note:** iWD 8.1.x no longer includes the iWD Capture and iWD Rules Installation Packages.

23. Start your application server.
24. Complete the following steps, if you want to upgrade the Standard Rules Template to the latest version:
    a. Using the GRDT, right-click the `iWD_Standard_Rules` project.
    b. In the `Context` menu, click `Reservations`.
    c. To release the Rules Template, click `OK`.
    d. Right-click the `iWD_Standard_Rules` project.
    e. From the `Context` menu, select `Properties > Template Properties`.
    f. Change the ID.For example, `iWD_Standard_Rules_761_Migrated`, and click `OK`.
    g. To rename the project itself, right-click the Rules Template and select `Rename`.

       Genesys recommends that you use the same name as you did for the template ID (see Step 24f).
    h. To publish the template, right-click the Template Project, and click Publish.

       This step enables you to switch between the Standard Rules Template, which was generated during migration, and the latest iWD 8.1 Rules Template, if necessary.

Import the Standard Rules Template

25. Import the Standard Rules Template that is included with iWD 8.1 into the GRDT:
    a. In the `GRDT > Eclipse Project Explorer`, right-click and select `Import`.
    b. In the Import Wizard, expand the `General` folder and select `Existing Projects Into Workspace`.
    c. Click `Next`.
    d. Click the `Select root directory` radio button, and browse to the `[iWD Manager Installation Directory]\ruleTemplates\` directory.
    e. Select the `iWD_Standard_Rules` folder.
    f. Click `Finish`.

       You should now see the `iWD_Standard_Rules` project in the `GRDT > Eclipse Project Explorer`.
    g. To publish the `iWD_Standard_Rules` to the GRS Repository, right-click on the project name in the `Project Explorer` and selecting `Publish`.

Note: After this step you will have two standard rules templates—one migrated from iWD 7.6.1, based on the template provided with GRAT, and also the very latest iWD 8.1 rules template from the iWD Manager installation. It is recommended to switch to the latest Standard Rules Template eventually.

26. Launch a web browser and log in to the Genesys Rules Authoring Tool at: `http://[webApplicationServerHost]:[webApplicationServerPort]/genesys-rules-authoring/login.jsp`
27. Select your migrated rules package from the navigation tree and provide a Business Name.
28. Go through and select each rule (linear and decision table) at the Rule Package, Department, and Process level, completing the following sub-steps:
    a. Select `Validate` from the GRAT menu in the lower-left corner of the working pane.
    b. Make any syntax changes to the rules, as necessary, saving each rule you change.
    c. Verify that Department and Process IDs are set correctly.
    d. Verify that Capture Points are specified correctly.
    e. Verify distribution points are properly displayed.

    Note: Archive functionality has been changed significantly in iWD 8.1.1 (see the Deployment Guide). If you have migrated your solution from iWD 7.6.1 to iWD 8.1.1, please note that iWD 8.1.1 archiving no longer supports the `Archiving` phase in rules. If you have archiving rules in your rule set, please review them and move them to either the `Classification` or the `Prioritization` phase as necessary.

    f. Verify the business calendar.
29. After you have validated all your rules, deploy your rule package:
    a. In the GRAT navigation tree, click the `Deploy Rules` node.
    b. Click `Deploy Now`.
30. Log out of the GRAT.

    Ensure that the Interaction Server has the `Event Log Database Access Point` added to its connections. For information about how to add Access Points as connections, see the *Genesys iWD 8.1 Deployment Guide*.

Upgrade iWD Configuration DB

31. Log in to iWD Manager at: `http://[webApplicationServerHost]:[webApplicationServerPort]/iwd_manager/ui/login.jsf`
    a. When you see the on-screen message: `Database init/upgrade required`, click `DB init/upgrade`.
    b. On the next screen, click `Create/Upgrade Database`.

    This updates your iWD configuration database for use with iWD 8.1.

c. While in the System tenant, navigate to General > Import/Export, browse to the folder where you installed the iWD Manager 8.1 supporting files, and import two configuration XML files from the config directory—iwd.xml and iwd_media_icons.xml.

After each of these imports you should see the message Import completed successfully in the Messages pane.

> **Note:** The structure of these XML configuration files has changed between iWD 8.0 and 8.1. There are a couple of implications of this change. First, there is a reporting.xml file, which is in the config directory where your iWD Data Mart 8.1 supporting files are installed. It contains sample Metric Templates only. For a new installation, you might consider importing this, but it is not necessary to import for an upgrade. Second, after upgrading to iWD 8.1 you will still see an iWD Rules module listed in iWD Manager. This is no longer used, because the Business Context Management Service component is now part of the iWD Core module in iWD 8.1, and can therefore, be safely ignored.

d. Navigate to your iWD managed tenant and select General > Import/Export.

e. Browse to the folder where you installed the iWD Manager 8.1 supporting files and import the iwd_media_icons.xml file.

f. Select Services and expand your solution in the navigation tree.

g. Click the Configure Ixn Custom Properties node.

A list of Mapping errors is displayed.

h. Click Configure Ixn Custom Properties.

iWD Manager will make the appropriate updates to the Interaction Server and Interaction Server Event Log databases, and create any missing or out-of-date Business Attributes and Event Log Database Access Point Application options.

i. Click Refresh.

If no Mapping Errors are displayed, the updates were successful. Restart the Interaction Server, if any mapping errors were corrected.

j. Navigate to the General > Profile screen of your managed tenant.

k. Enter a value for the Genesys Rules Authoring Tool URL property.

The value will be the URL you used in Step 16 on page 1766 to launch GRAT, without the login.jsp at the end.

l. Click Save.

m. To deploy your iWD Solution, select Services and expand your solution.

n. Navigate to `Departments & Processes` and check that all Departments are available.

o. To synchronize the Business Structure between the iWD and Configuration Manager, click `Push to Rules System`.

p. Select the `Deploy Solution` node and then click `Deploy Solution`.

> **Note:** If Interaction Server is not running, you will see an error message next to the `Interaction Server Connector` service in your solution, on the `Services` status screen that appears after deployment. This is normal.

32. Log out of iWD Manager.

Update IWDBP Business Process

33. Using Interaction Routing Designer, import the new `iwdbp.wie` file from `[iWD Manager installation directory]\config`.

    After you import this file and save the changes, IRD updates your Genesys Configuration Server with the new version of the IWDBP business process and new versions of the other two iWD-related business processes—ABC IWD Simple BP and Standard Genesys to iWD Adapter.

34. After the IWDBP business process configuration objects are created, open the business process in Interaction Routing Designer and confirm that the IWDBP process is there. Make any updates necessary, based on your business requirements. When you are done, be sure that all the routing strategies are activated.

Update Existing List Object

35. Modify one existing List object, and create one additional List object, that are both necessary for the IWDBP business process to function. See the section, "Configuration of List Objects", Appendix C in the *Genesys intelligent Workload Distribution 8.1 Deployment Guide*.

    a. Modify the existing list `Iwd_Esp_List`.

    b. Change the name of the `ESPServerList` section to `BCMSServerList`.

    c. Add another section to the List called `GREServerList`, with a single option Name/Value pair, where the option name is set to the runtime ID of your iWD Solution (the same value that should already exist in the option under the `BCMSServerList` section) and the option value is the name of your `Genesys Rules Engine Application` in Configuration Server.

    d. Create a new List called `Iwd_Package_List`, with a single section called `RulePackageList`, with a single option Name/Value pair, where the option name is set to the runtime ID of your iWD Solution and the option value is the name of your migrated rule package (for example, `acme.solution`).

Upgrade Interaction Server

36. Optionally, upgrade your Interaction Server to the latest version that is provided with iWD 8.1. While this is not strictly necessary, it is highly recommended for the following reasons:

- It gives you the benefit of any defect fixes and performance improvements that have been introduced in Interaction Server.
- It provides you with new versions of all the iWD capture points that have now been integrated into Interaction Server and are the preferred method of capturing tasks into iWD. (For more information, see the chapter about Integrated Capture Points in the *Genesys intelligent Workload Distribution 8.1 Deployment Guide*.)
- It provides an enhancement that allows tasks to be completed, canceled, updated, held, and restarted through an iWD capture point—even when the task is assigned to an agent. This is provided through a new option of Interaction Server 8.1.2 called `enable-revoke-from-agent`. The option must be added to the `settings` section on the `Options` tab of the Interaction Server application, and the value must be set to `true`. For more information, see the *Genesys eServices 8.1 Reference Guide.*

If you require step-by-step instructions for upgrading Interaction Server, see the *Genesys eServices 8.1 Deployment Guide.*

Specify IS Connection to GRS

37. On the `Connections` tab of the `Interaction Server Application`, add a connection to the `Genesys Rules Engine Application`.

Test iWD Solution

38. You are now ready to test your migrated iWD Solution. If they are not already running, start up your `Interaction Server` (and corresponding DB Server) and `Universal Routing Server Applications`, and your application server.

As described in previous steps, confirm that you have:

- Deployed your iWD Solution to the application server
- Deployed your migrated rules package to the application server
- Activated the routing strategies in the IWDBP business process
- Created the necessary List Objects for IWDBP

Put a task into the system through any iWD capture point and use the Global Task List to observe whether the task is processed as you expect, with the business rules taking effect to classify, prioritize, and reprioritize the task correctly.

End of procedure

Migrating from iWD 7.6.1 to 8.0

Follow these migration procedures to migrate your iWD solution from 7.6.1 to 8.0.0.

Notes: iWD 7.6.101.15 is the minimum version of iWD that supports migration to iWD 8.0.
There is no change in licensing between iWD 7.6.1 and iWD 8.0.

Run iWD 7.6.1 and 8.0 in parallel

1. Export the iWD 7.6.1 tenant configuration.
2. Convert the exported configuration to iWD 8.0 format by using the `iwd_migrate` utility that can be found in the iWD manager `migrate` subdirectory.

   Open a command prompt and enter the following command:

   ```
   iwd_migrate.cmd config761.xml config800.xml
   ```
3. Create a new iWD configuration database for iWD 8.0. Refer to the i*WD 8.0 Deployment Guide* for more information.
4. Create a new iWD Data Mart database for iWD 8.0. Refer to the *iWD 8.0 Deployment Guide* for more information.
5. Initialize the iWD 8.0 configuration database. The database will initialize automatically the first time you login to iWD Manager 8.0, or you can use the `dbup` utility that is included in the iWD Manager installation package to initialize the database. Refer to the *iWD 8.0 Deployment Guide* for more information about the `dbup` utility.
6. Initialize the iWD 8.0 Data Mart. The iWD Data Mart database will initialize automatically when the Database Service is started, or you can use the `dbup_dm` utility that is included in the iWD Data Mart installation package. Refer to the *iWD 8.0 Deployment Guide* for more information about the `dbup_dm` utility.
7. Import the standard iWD 8.0 configuration files included with installation packages into the SYSTEM tenant.
8. Create a new tenant and import the converted configuration file (`config800.xml`) from Step 2.
9. Run the iWD Setup Utility to import iWD 8.0 business processes. Update the strategies as needed to mimic the logic of your existing iWD 7.6.1 strategies.
10. Configure the iWD 8.0 services that are required in your environment. Refer to the iWD 8.0 Deployment Guide for information about configuring iWD services. iWD services (with the exception of capture points) cannot be migrated automatically from 7.6.1 and need to be recreated. For capture points, only some of the properties need to be updated. Review each capture point closely.

11. Update custom rule template conditions, expressions and functions (if any) according to iWD 8.0 syntax. The `$task` object has been replaced with `$data` which represents a key/value collection (`KeyValueCollection` class in Platform SDK).
12. Verify all of the rule actions and conditions. Some of the rule actions may need to be updated or removed, such as `Assign distribution point`.
13. Deploy the iWD 8.0 solution.
14. Update the source system configuration to submit tasks to the new iWD 8.0 instance.
15. After all of the tasks in the iWD 7.6.1 instance are completed or canceled, the iWD 7.6.1 instance can be shut down.

Move iWD 7.6.1 tasks to iWD 8.0.0

This section is optional. If necessary, it is possible to speed up Step 15 in the preceding procedure.

Note: If you want to redistribute tasks through the Web Service Distribution Point, your 7.6.1 iWD system must be version 7.6.101.15 or higher.

1. Configure a new Webservice Capture Point in the 8.0 instance of iWD (if an existing Webservice Capture Point is not already configured).
2. Upgrade the iWD 7.6.1 instance to version 7.6.101.15 or later.
3. Install iWD Webservice Distribution Point 7.6.101.15 into the iWD 7.6.1 instance (copy the jars included in the `iWD-wsdist-7.6.101.15.zip` package to the iWD Runtime node and iWD Manager `webapps` folders).
4. Restart the application server.
5. Configure the Webservice Distribution Point in the iWD 7.6.1 instance to point to the Webservice Capture Point that was configured in Step 1.
6. Update the iWD 7.6.1 classification rules to assign **all** tasks to the Webservice Capture Point that was configured in the previous step. It is recommended to disable all other rules so that no other task attributes are altered.
7. Restart all pending (not completed or canceled) tasks in the iWD 7.6.1 instance by using iWD Manager. This will assign the tasks to the Webservice Distribution Point and submit them to iWD 8.0. This is an asynchronous process and might take some time to finish.
8. After all pending tasks have been distributed by using the Webservice Distribution Point, the iWD 7.6.1 instance can be shut down.

Other Data and Objects

This section provides details about migration considerations for other data and objects.

Genesys Business Processes

You will have to modify any existing 7.6.1 routing strategies and business processes in order to use them with iWD 8.0. Refer to Appendixes B, C, and D in the *iWD 8.0 Deployment Guide* for a description of the default business process (`IWDBP`) that is provided with iWD 8.0, as well as information about other business processes that can be used to introduce iWD business rule capabilities into existing business processes.

CC Pulse+ Templates and Stat Server Statistics

CC Pulse+ templates and Stat Server statistics that were configured for iWD 7.6.1 are compatible with iWD 8.0.

Capture Point Services

All capture point APIs that were created for iWD 7.6.1 are compatible with iWD 8.0.

Transformation Scripts

In general, all 7.6.1 transformation scripts are compatible with iWD 8.0. The only differences of note are that `brokerId` is a string in iWD 8.0 and there is no `distributionId` in iWD 8.0.

Reporting Queries

Refer to the *iWD 8.0 Data Mart Reference Guide* for information about changes to tables and fields that might affect any existing reporting queries.

Custom Attributes

For any custom attributes in your iWD 7.6.1 deployment that you want to use in iWD 8.0 (to create a filter for the Global Task List, or to appear in the Global Task List as a sortable column), follow the instructions described in the "Interaction Custom Properties" section of the *iWD 8.0 Deployment Guide*

Database Sizing

iWD 8.0 stores operational data in the Interaction Server database. Refer to the *Genesys Database Sizing Estimator* to estimate the size of your Interaction Server database. Add 30-50% to the estimated size to determine the space required for an Interaction Server database that serves iWD.

iWD 8.0 also uses a Logging Database. This database's size depends on:

- Number of items per day
- Average processing time (in days)
- Task size (4KB is usually used as an average)
- Business process complexity. (a coefficient, 30 for iWD).
- Technical coefficient (for indexes, and so on), 2 by default.

The following formula can be used to estimate the size of the Logging database:

Size (in KB) =

Number of items per day x average processing time (in days) x 4 X 30 X 2

Part

29 License Reporting Manager Migration

Genesys License Reporting Manager (LRM) measures and stores usage data for Genesys products and user-defined bundles, providing Genesys users with license usage reports for compliance monitoring, and Hosted Service Providers with usage data that can be used for billing end customers.

LRM also enables hosted service providers to define bundles of Genesys licenses for the creation of value bundles for end users according to the hosted service provider's marketing needs.

The chapters in this section describe the migration process for License Reporting Manager release 8.1 and 8.5.

They also discuss component changes and the other Genesys software that supports and enables License Reporting Manager release functionality.

The information is divided into the following chapters:

- Chapter 87, "Migration Order for License Reporting Manager," on page 1793 discusses the preliminary migration procedures and the migration order for migrating to License Reporting Manager 8.1.
- Chapter 88, "Changes in License Reporting Manager 8.x," on page 1799 provides information about changes in components, configuration options, and the database that you need in order to upgrade License Reporting Manager from one release to the next.
- Chapter 89, "License Reporting Manager Migration Procedures," on page 1805 presents the procedures for migrating to License Reporting Manager 8.1.

Note: The initial release of License Reporting Manager was a Restricted release 8.0.

Chapter

87 Migration Order for License Reporting Manager

This chapter discusses the preliminary migration procedures and the migration order to migrate to License Reporting Manager (LRM) 8.1.

There are three main sections in this chapter:

Preliminary Migration Procedures

Preliminary Genesys Product Migration Procedures

The process for migrating License Reporting Manager includes the following preliminary procedures:

1. Review "Migration Roadmap," Chapter 1 of this guide.
2. Examine the order in which you should upgrade the Genesys software that is required for the License Reporting Manager release to which you are migrating. See "Order of Migration" on page 1795.
3. Examine the component changes for License Reporting Manager. See "Component Changes for LRM 8.x" on page 1799. You also need to examine the changes in configuration options and database schema described in "Changes to the Database Schema for LRM 8.x" on page 1802.

Note: These tables discuss only those changes that directly affect the migration of this product. For complete information about "What's New in This Release" of License Reporting Manager and how the release functions, see the *License Reporting Manager Deployment*

Guide for the applicable release. For a complete list of documentation relevant to the migration of this product, see "Reference Materials".

4. Review the technical licensing requirements to support License Reporting Manager.

Note: License Reporting Manager itself does not require a technical license. However, other components with which License Reporting Manager interoperates do require technical licenses, and these might need to be migrated. See "Licensing Migration" in Chapter 2 of this guide, and the product documentation for the particular component.

5. Check the interoperability of License Reporting Manager components during the upgrade procedures. See "Interoperability Among License Reporting Manager Components" on page 1796.
6. See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and *Gplus* Adapters Interoperability.
7. Review other issues pertaining to the migration of License Reporting Manager. See "Additional Information about Migration" on page 1797.

Reference Materials

- *License Reporting Manager* materials for the release to which you are migrating:
  - *License Reporting Manager Release Note*
  - *License Reporting Manager Plug-in for GAX Release Note*
  - *License Reporting Manager Release Advisory*
  - *License Reporting Manager Deployment Guide* for
  - *License Reporting Manager Physical Data Model* for your particular RDBMS
- *Genesys Interoperability Guide*
- *Genesys Supported Operating Environment Reference Guide*

Order of Migration

This section is specific to the components (applications) that enable and support License Reporting Manager.

Multi-Site/Single-Site and Multi-Tenant Migration

Whether you will necessarily migrate all sites or all tenants simultaneously depends on the specific License Reporting Manager deployment.

All tenants served by a single LRM instance will be migrated simultaneously. Similarly, in a multi-site deployment, all the sites served by a single LRM instance will be migrated simultaneously. If each site or tenant is served by a separate LRM instance, each instance will be upgraded independently.

In a deployment with multiple databases, each will be upgraded independently.

In a multi-site deployment with multiple LRM instances, it is possible to interoperate different releases at different sites provided that each site also has its own databases, or provided that, because of different roles, it is not necessary for the information from the separate LRM instances to be merged in the centralized databases.

In a multi-site deployment with multiple LRM instances, if the migration for all the sites is performed sequentially, it does not matter in what order you upgrade the LRM instances or the databases.

For detailed information about the upgrade steps, see “Migration Procedures” on page 1809.

Note: An LRM instance that has been upgraded to a later release *cannot* write data to an earlier version of the database. Do not start any upgraded LRM instances until you have also upgraded the database to the appropriate schema version.

Migrating from License Reporting Manager 8.0

1. Migrate Management Framework.

Notes:
- You must migrate to Management Framework 8.5 before you install LRM 8.5.
- You can migrate to Management Framework 7.5, 7.6, 8.0, or 8.1 Configuration Layer or Management Layer while still using 8.1 License Reporting Manager components. If you want to change the Configuration Database before Configuration Layer migration, migrate the database, then the data, and run the Configuration Conversion Wizard.

Management Framework is the foundation for all Genesys products, solutions, and options. For information about migrating the layers and components of Management Framework, see "Framework Migration" in this guide.

2. Upgrade other prerequisite Genesys components (for example, Interaction Concentrator) as applicable for your deployment.

   For information about the minimum releases of products that are required for full License Reporting Manager functionality, see the product license coverage in the *License Reporting Manager Deployment Guide* for the applicable release.

   When upgrading many components, determine if the first component you upgrade to release 7.x or 8.x is backward compatible with the 6.x and 7.x components that have not been upgraded yet. See "Interoperability Among License Reporting Manager Components" on page 1796.

3. Migrate License Reporting Manager. For full details, see Chapter 89, "License Reporting Manager Migration Procedures," on page 1805.

Interoperability Among License Reporting Manager Components

The term *interoperable* means that different versions of Genesys solutions, components, or options can work together compatibly during the migration process.

Interoperability of Genesys products can occur at two levels of migration:

- **Interoperability at the suite level** means combining different versions of solutions and options during the migration process.
- **Example**: You can migrate to the Configuration Management Layer of Framework 8.0 while still using 7.x components. See the *Genesys Interoperability Guide Wiki* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions.
- **Interoperability at the solution-specific level** means combining different versions of the components of a particular solution while upgrading them sequentially during the migration process.

  The mixture of components may include executables, applications, routing strategies, scripts, and data that comprise a particular solution.

  As you upgrade each of the components in sequence, you will need to know if it is backward-compatible with the other components of License Reporting Manager.

Example: If you have four components to upgrade, determine if the first component you upgrade to version 8.x will be backward compatible with the three 7.x components that are not upgraded yet.

Additional Information about Migration

The following information is also pertinent to the migration of License Reporting Manager.

- You can migrate License Reporting Manager from release 8.0 directly to release 8.1.0.
- To migrate License Reporting Manager from release 8.0 to release 8.1.1 or later, you must first migrate to release 8.1.0.
- Database migration steps are only required when upgrading License Reporting Manager from release 8.1.0 to 8.1.1 or later.
- LRM processing must be suspended while the migration is occurring. To minimize the loss of data, perform the upgrade when the contact center load is minimal.

Note: For an overview about migration issues, see “Migration Roadmap,” Chapter 1 of this guide.

Chapter

88 Changes in License Reporting Manager 8.x

This section provides information that you need to upgrade the components and configuration options of License Reporting Manager (LRM) from one release to the next. This section discusses only changes (additions, deletions, and modifications) in the product that need specifically to be addressed during the migration process. The product documentation for each release contains a comprehensive list of changes from release to release. In particular, review the "New in This Release" section of the latest *License Reporting Manager Deployment Guide*.

There are three sections in this chapter:

Component Changes for LRM 8.x

License Reporting Manager (LRM) includes the following components:

- License Reporting Manager Server
- LRM Plug-in for GAX
- License Reporting Manager database

There have been no component changes since the initial 8.0 release of LRM.

Changes to Configuration Options for LRM 8.x

Table 323 on page 1800 explains the changes to configuration options for License Reporting Manager 8.x. The `Change Occurred in Version #` column in the table indicates the License Reporting Manager release in which the functionality changed.

For information about new 8.x functionality or modifications that configuration option changes implement, see the "New in This Release" section of the *License Reporting Manager Deployment Guide* .

Table 323: Configuration Option Changes from 8.0 to 8.x

[Section Name] Option Name	Type of Change	Change Occurred in Version #	Details
[lrm]binding.address	New option	8.5.0	Specifies the address to which the HTTP/HTTPS listening socket binds to receive requests.
[lrm] first_time_data_calculation_max_days	New option	8.5.0	Specifies the maximum number of days the nightly scheduled job will calculate ICON and GVP data for the first time the LRM runs the statistics job.
[lrm]lrm-retention-days	New option	8.5.0	Specifies the number of days LRM data is kept in the database.
[lrm]agentgroup_enabled	New option	8.1.2	Specifies whether the LRM Server collects statistics and reports for agent groups.
[lrm]placegroup_enabled	New option	8.1.2	Specifies whether the LRM Server should collect statistics and reports for place groups.
[lrm] first_time_data_calculation_max_days	New option	8.1.1	Specifies the maximum number of days the nightly scheduled job will calculate ICON and GVP data for the first time the LRM runs the statistics job.

Table 323: Configuration Option Changes from 8.0 to 8.x (Continued)

[Section Name] Option Name	Type of Change	Change Occurred in Version #	Details
[lrm] nightly_data_calculation_max_days	New option	8.1.1	Specifies the maximum number of days the nightly scheduled job will calculate ICON and GVP data for, if LRM missed calculating data for some days.
[lrm] schedule	New option	8.1.1	Specifies the time of day when the LRM executes the statistics gathering job.
[lrm] schedule-retry-delay	New option	8.1.1	Specifies the delay in minutes after the previous statistics job has failed before it tries to run the job again.
[lrm] schedule-retry-max	New option	8.1.1	Specifies the number of times LRM should attempt to retry the nightly statistics gathering job if it fails.
[lrm] role	Valid values changed	8.1.1	This option, which used to specify the role of LRM, now specifies the role of the DAP. The valid values are `main` or `icon`.
[lrm] import-bulk-size ldb-lock-timeout ldb-lock-retry-max wait-import-timeout	Options discontinued	8.1.1	

For more detailed descriptions of all the LRM options, refer to the *License Reporting Manager Deployment Guide*.

Changes to the Database Schema for LRM 8.x

Table 324 on page 1802 lists the database schema changes for License Reporting Manager (LRM) from release 8.0 to release 8.x.

The following significant changes in functionality were made in 8.x releases. For a more complete list of new and updated functionality made during General releases, see the "New in This Release" section of the *License Reporting Manager Physical Data Model* for your particular RDBMS.

Table 324: Database Schema Changes from 8.0 to 8.x

Table Name	Column Name	Type of Change	Change Occurred in Release #	Details
LRM_CONCURRENT_GROUP_USAGE		Table added	8.1.2	Includes peak-usage, and the peak-usage time occurred during a given day for a particular Sellable Item (concurrent seat) for Agent Groups and Place Groups.
LRM_ENABLED_GROUP_DETAILS		Table added	8.1.2	An internal table for internal data processing of enabled group details
LRM_ENABLED_GROUP_SUMMARY		Table added	8.1.2	Includes the enabled count information during a given day for Agent Groups and Place Groups.
LRM_CONCURRENT_SEAT		Table added	8.1.1	Includes peak-usage, the peak-usage time occurred, and the enabled seat count, during a given day for a particular Sellable Item (concurrent seat).

Table 324: Database Schema Changes from 8.0 to 8.x

Table Name	Column Name	Type of Change	Change Occurred in Release #	Details
LRM_AGENT_STATE		Table added	8.1.1	An internal table for internal data processing of Agent States.
LRM_CAMPAIGN		Table added	8.1.1	An internal table for internal data processing of campaigns.
LRM_ENABLED_SEAT		Table added	8.1.1	An internal table for internal data processing of enabled seats.
LRM_JOURNAL		Table added	8.1.1	An internal table for internal data processing of journals.
LRM_LOGIN_SESSION		Table added	8.1.1	An internal table for internal data processing of login sessions.
LRM_PROVIDER		Table added	8.1.1	An internal table for internal data processing of providers.
LRM_SESSION_ENDPOINT		Table added	8.1.1	An internal table for internal data processing of session endpoints.
All tables		Tables removed	8.1.1	All release 8.1.0 tables were replaced to simplify the database schema.
LRM_PROVISIONED_COUNT		Table added	8.1.0	An internal table for internal data processing of purchased usage quantities for resources in tenant usage.

Table 324: Database Schema Changes from 8.0 to 8.x

Table Name	Column Name	Type of Change	Change Occurred in Release #	Details
LRM_CONCURENT_SEAT2	PROVISIONED_COUNT	Column added	8.1.0	Includes purchased usage quantities for resources in tenant usage.
Multiple tables	SELLABLEITEMTYPE	Items added	8.1.0	Include the following sellable items: • 6 —Third-Party Work Items • 18 —Genesys Interaction Workspace • 21 —Genesys Voice Platform ASR Ports • 22 —Genesys Voice Platform TTS Ports

Chapter

89 License Reporting Manager Migration Procedures

This chapter provides the migration procedures for License Reporting Manager. Refer to other sections of this book for detailed information to help you migrate Framework and other Genesys solutions.

This chapter contains the following sections:

Migration to Release 8.5.x

This section describes the migration procedures for migrating to the 8.5 release of License Reporting Manager.

Notes:
- No database migration steps are required when upgrading LRM from release 8.1.1 or later.
- LRM must have permission to write the entitlement information into the Transactions of the Environment tenant when it imports the license file. See how to configure the LRM application in the *License Reporting Manager 8.5 Deployment Guide*.
- You must migrate Management Framework to release 8.5. See installation prerequisites in the *License Reporting Manager 8.5 Deployment Guide.*

As described in "Order of Migration" on page 1795, you must complete the following preliminary procedures before starting your migration of License Reporting Manager:

1. Migrate Management Framework to 8.5, as applicable for your deployment.
2. Upgrade other prerequisite Genesys components (for example, Interaction Concentrator) as applicable for your deployment.

Migration Procedures

Follow these migration procedures for your deployment:

Prerequisites

1. You must ensure that:
   - Your target computer meets the platform and component prerequisites that are listed in the *Genesys Supported Operating Environment Reference Guide*.
   - You have installation rights.
   - You have the Oracle SQL Developer tool installed on a computer that can access the Oracle database that is used to store License Reporting Manager data.
   - The Local and System License Reporting Manager instances from the previous LRM release are not running. You do not need to stop any other applications that provide data to License Reporting Manager during this deployment.
   - You create backup copies of both your Local and System LRM databases before you begin this deployment.

Upgrade License Reporting Manager

2. If migrating from License Reporting Manager release 8.0, you must first perform the procedure "Migration to Release 8.1.0" on page 1809.
3. Follow the installation procedure in the *License Reporting Manager 8.1 Deployment Guide* to install and configure the current release of LRM.
4. To migrate from release 8.1.0 to release 8.5.x:
   a. Copy the `upgrade810to811.sql` file from the `<LRM installation directory>/sql/oracle/` directory on the newly installed LRM server to the server where you installed the Oracle SQL Developer tool.
   b. Start Oracle SQL Developer and connect to the Oracle Database using the credentials for the user that you configured with the `main` role to copy data from the old System LRM 8.1.0 database to the new database.

c. Run the `upgrade810to811.sql` script to import data from release 8.1.0 to the new release.

Note: These migration scripts apply the necessary changes for the new release, but keep all previous non-temporary data intact for both the Local and System LRM databases. The data from the previous release remains available in the LRM reports.

Complete the Migration

5. Start License Reporting Manager. For more detailed instructions, see the *License Reporting Manager Deployment Guide* chapter about starting and stopping License Reporting Manager.
6. Verify License Reporting Manager operation by looking for error messages in the log.

   If the upgrade of License Reporting Manager fails, contact Customer Care.

   If the migration is successful, you can remove the folders in use by the local and system LRM 8.0.

Rollback Procedures

There is no rollback procedure. If the upgrade of License Reporting Manager fails, contact Customer Care. An upgrade failure will not impact any other Genesys products, but LRM will be unable to collect data until it is fixed.

Migration to Release 8.1.1 or 8.1.2

This section describes the migration procedures for migrating to the 8.1 release of License Reporting Manager..

Note: No database migration steps are required when upgrading LRM from release 8.1.1 to 8.1.2.

As described in "Order of Migration" on page 1795, you must complete the following preliminary procedures before starting your migration of License Reporting Manager:

1. Migrate Management Framework, as applicable for your deployment.
2. Upgrade other prerequisite Genesys components (for example, Interaction Concentrator) as applicable for your deployment.

Migration Procedures

Follow these migration procedures for your deployment:

Prerequisites

1. You must ensure that:

- Your target computer meets the platform and component prerequisites that are listed in the *Genesys Supported Operating Environment Reference Guide*.
- You have installation rights.
- You have the Oracle SQL Developer tool installed on a computer that can access the Oracle database that is used to store License Reporting Manager data.
- The Local and System License Reporting Manager instances from the previous LRM release are not running. You do not need to stop any other applications that provide data to License Reporting Manager during this deployment.
- You create backup copies of both your Local and System LRM databases before you begin this deployment.

Upgrade License Reporting Manager

2. If migrating from License Reporting Manager release 8.0, you must first perform the procedure "Migration to Release 8.1.0" on page 1809.
3. Follow the installation procedure in the *License Reporting Manager 8.1 Deployment Guide* to install and configure the current release of LRM.
   a. To migrate from release 8.1.0 to either release 8.1.1 or 8.1.2: Copy the `upgrade810to811.sql` file from the `<LRM installation directory>/sql/oracle/` directory on the newly installed LRM server to the server where you installed the Oracle SQL Developer tool.
   b. Start Oracle SQL Developer and connect to the Oracle Database using the credentials for the user that you configured with the `main` role to copy data from the old System LRM 8.1.0 database to the new database.
   c. Run the `upgrade810to811.sql` script to import data from release 8.1.0 to the new release.

Note: These migration scripts apply the necessary changes for the new release, but keep all previous non-temporary data intact for both the Local and System LRM databases. The data from the previous release remains available in the LRM reports.

Complete the Migration

4. Start License Reporting Manager. For more detailed instructions, see the *License Reporting Manager Deployment Guide* chapter about starting and stopping License Reporting Manager.
5. Verify License Reporting Manager operation by looking for error messages in the log.

   If the upgrade of License Reporting Manager fails, contact Customer Care.

   If the migration is successful, you can remove the folders in use by the local and system LRM 8.0.

Rollback Procedures

There is no rollback procedure. If the upgrade of License Reporting Manager fails, contact Customer Care.

Migration to Release 8.1.0

This section describes the migration procedures for migrating to the 8.1 release of License Reporting Manager.

As described in "Order of Migration" on page 1795, complete the following preliminary procedures before starting your migration of License Reporting Manager:

1. Migrate Management Framework, as applicable for your deployment.
2. Upgrade other prerequisite Genesys components (for example, Interaction Concentrator) as applicable for your deployment.

Migration Procedures

Follow these migration procedures for your deployment:

Prerequisites

1. You must ensure that:
   - Your target computer meets the platform and component prerequisites that are listed in the *Genesys Supported Operating Environment Reference Guide Wiki*.
   - You have installation rights.
   - You have installed and configured Oracle Client and the SQL Plus utility.
   - The Local and System License Reporting Manager instances from the previous LRM release are not running. You do not need to stop any other applications that provide data to License Reporting Manager during this deployment.
   - You create backup copies of both your Local and System LRM databases before you begin this deployment.

Upgrade License Reporting Manager

2. Navigate to the License Reporting Manager directory.
3. Open and run the `install.sh` file in a terminal window.
4. When prompted, enter the Host Name or press `Enter` for "Local Host".
5. When prompted, enter the Configuration Server Name, Network port number, User name, and Password.
6. From the displayed list, choose an application that you want to install. When you are prompted to do so, enter the number of your chosen application.
7. Enter the location in which you want your application to be installed. Provide the full path.

8. A list of files that have been installed in your application's destination location will be displayed, along with a message that informs you of your successful installation.
9. Make sure you have set the proper `ORACLE_HOME` and `ORACLE_SID` environment variables in the Oracle Client and the SQL Plus utility.

> **Note:** The database administrator must have granted the Oracle schema/user execution access to the `DBMS_LOCK` package. To grant permission, run the following command line:
>
> `grant execute on dbms_lock to <user>`
>
> For example: `grant execute on dbms_lock to lrm_sys_db`

10. Run the migration script `lrm_migration_db_i.sh <username> <password>` where username and password are those that are associated with the Local LRM database. Repeat this step for each Local LRM database in your environment.
11. Run the migration script `lrm_migration_db_a.sh <username> <password>` where username and password are those that are associated with the System LRM database.

    These migration scripts apply the necessary changes for the new release, but keep all previous non-temporary data for both the Local and System LRM databases intact.

Complete the Migration

12. Start License Reporting Manager. For more detailed instructions, see the *License Reporting Manager Deployment Guide* chapter about starting and stopping License Reporting Manager.
13. Verify License Reporting Manager operation by looking for error messages in the log.

    If the upgrade of License Reporting Manager fails, contact Customer Care.

    If the migration is successful, you can remove the folders in use by the local and system LRM 8.0

Rollback Procedures

There is no rollback procedure. If the upgrade of License Reporting Manager fails, contact Customer Care.

Part

30 Workspace Desktop Edition Migration

Workspace Desktop Edition (formerly Interaction Workspace) is a smart-client application that provides agents and knowledge workers with user-friendly access to the information, processes, and applications they need to perform their jobs more efficiently and to ensure increased customer satisfaction.

The chapter in this section describes the migration process from Interaction Workspace release 8.1 to Workspace Desktop Edition release 8.5.

For information about changes and the other Genesys software that supports and enables Workspace release functionality, refer to the release 8.5 documentation.

The information is contained in the following chapter:

- Chapter 90, “Migrating to Workspace Desktop Edition 8.5,” on page 1813 migration procedures and the considerations to migrate from Interaction Workspace 8.1 to Workspace Desktop Edition 8.5.

Chapter

90 Migrating to Workspace Desktop Edition 8.5

This chapter discusses the migration procedures and the considerations to migrate from Interaction Workspace 8.1 to Workspace Desktop Edition 8.5.

This chapter is a summary only. Please refer to Migrating from Workspace 8.1 to 8.5 for details and links to specific procedures.

There are five main sections in this chapter:

Migrating from Workspace 8.1 to 8.5

Migrating from Interaction Workspace 8.1 to Workspace Desktop Edition 8.5 is a simple and straightforward task. It is as simple as when you initially deployed and installed Workspace.

Check the Tables of Supported Systems and *Genesys Supported Operating Environment Reference Guide* to ensure that your system meets the Workspace requirements.

Begin migration by importing the latest Workspace Application into the Genesys Framework by using Genesys Administrator to create and provision the Workspace application.

Select the type of deployment that you want to perform: ClickOnce, Non-ClickOnce, or Developer Toolkit Deployment. All application types migrate smoothly from 8.1 to 8.5

Next, install and enable the Workspace Desktop Edition SIP Endpoint.

To see what is new in Workspace 8.5, refer to the New in Deployment Guide 8.5.1 topic and the *Workspace 8.5 Release Note.*

To migrate your Custom Applications from 8.1 to 8.5, refer to the migration topic in the *Workspace Developer's Guide*.

For the System Administrator

The following platforms have changed:

- Windows 8.1 is now supported
- Discontinued: Windows XP, Windows 2003, Citrix XenApp 4.5

You must rollout .NET 4.5 on all agent workstations that will use Workspace 8.5.

For Push/Microsoft System Center, custom packages can be designed to migrate smoothly from 8.1

The list of application templates on the Workspace DVD/IP has changed:

- Removed:
  - 'Interaction_Workspace_AgentDesktop.apd/xml'. The Application is now of type 'Interaction Workspace'.
- Renamed:
  - from Interaction_Workspace.apd/xml to Workspace_Desktop_Edition_SEP802_850.apd/xml—Core Workspace options with SIP Endpoint 8.0.2 options (Counterpath stack)
- New:
  - Workspace_Desktop_Edition_850.apd/xml—Core Workspace options without SIP Endpoint options
  - Workspace_Desktop_Edition_SEP850_850.apd/xml—Core Workspace options with SIP Endpoint 8.5.0 options (Genesys stack)

Refer to the SIP Endpoint Migration section for more information about which SIP Endpoint installation to choose.

SIP Endpoint Migration

Ensure that you are using the correct pre-requisites for the SIP Endpoint that you want to use.

- Interaction Workspace 8.0 to 8.1.4 supports Interaction Workspace SIP Endpoint 8.0.2
- Workspace Desktop Edition 8.5 supports Interaction Workspace SIP Endpoint 8.0.2 and Workspace SIP Endpoint 8.5.0

- .NET Framework (refer to Supported Operating Environment: Workspace SIP Endpoint)
- SIP Endpoint 8.5.0 has additional Microsoft pre-requisites; refer to Installing the Workspace SIP Endpoint.

Configuration Options

New configuration options have been added and some existing configuration options have been changed or removed. Refer to the list of configuration options to view all of the supported options for workspace 8.5. The greatest change has occurred with the SIP Endpoint options. Refer to Changes to Workspace SIP Endpoint Configuration Options in Workspace 8.5.0 for a detailed list of changes.

Also refer to the New in Deployment Guide 8.5.0 topic for a list of new and changed configuration options.

Agent Migration

Workspace 8.5.0 introduces a new user interface experience including:

- New icons and controls
- New color schema
- New “hamburger”-style menu with all items “stacked” in one menu.
- New Main Window layout that displays interactions as embedded, tabbed views, instead of independent windows.

The Gadget interface has been removed from Workspace because it is redundant with the 8.5 user experience. The 8.5 user interface provides the ability to dock and auto-hide the interaction toolbar, thereby keeping the agent’s desktop uncluttered.

If you are concerned that the changes to the user experience are too drastic for your agents, Workspace enables you to use various strategies to transition your agents to Workspace 8.5.0 without completely implementing the new user experience. Use one or both of the following strategies:

- Keep the original theme, icons, and colors by letting your agents select the Blue theme from the Change Theme menu or by forcing this theme as default. Administrators can enforce this by adjusting the content and the order of the gui.themes configuration option. The value Default represents the new Workspace theme while Blue, Royale and Fancy represent the legacy themes.
- Roll back to independent interaction window experience by setting to false the value of the interaction-bar.enable-quick-access configuration option.

Part

31 Genesys Rules System (GRS) Migration

Genesys Rules System (GRS) provides the ability to develop, author, and evaluate business rules. A business rule is a piece of logic defined by a business analyst. These rules are evaluated in a Rules Engine based upon requests received from client applications such as intelligent Workload Distribution, Genesys Proactive Engagement and Genesys Conversation Manager.

The document linked to from this chapter describes the migration processes of GRS for releases 8.1.x (the first release of GRS as an independent product) and later releases.

- 8.x Migration

Part

32 Appendices

This Part contains the following appendices:

- Appendix A, "Login Procedure," on page 1821 describes a standard login procedure for a Genesys GUI application, such as the Configuration Conversion Wizard.
- Appendix B, "Genesys Desktop and Related Products," on page 1823 shows that there is no direct migration from existing versions of Internet Contact Solution (ICS) and Genesys Contact Navigator Web (GCN Web) to Multi-Channel Routing (MCR) 7.0 and Genesys Agent Desktop (GAD) 7.0.

See the *Genesys Interoperability Guide* for information on the compatibility of Genesys products with various Configuration Layer Environments; Interoperability of Reporting Templates and Solutions; and G*plus* Adapters Interoperability.

Genesys

Appendix

A Login Procedure

When you start a Framework GUI application, or if you are being forced to log in again after a period of inactivity, a Login dialog box displays. The Configuration Layer checks the information specified in the Login dialog box and determines the user's permission to view, create, and modify objects in the Configuration Database.

In a Login dialog box:

1. Enter a user name. For logging in to the Configuration Layer for the first time, use the Master Account user name, which is `default`. After the appropriate configuration objects of the Person type are added to the configuration, use a customized user name.
2. Enter a user password. For logging in to the Configuration Layer for the first time, use the Master Account password, which is `password`. After the appropriate configuration objects of the Person type are added to configuration, use a customized password.
3. Click `Details` or `More options` if not more entry fields are displayed.
4. Enter the Application name, which is the instance of the application you are logging in to as it is registered in the Configuration Database.

   Notes:

   - The predefined name of the Configuration Manager Application is `default`. The Configuration Manager `Application` object can be renamed later.
   - If you are logging in to Genesys Administrator, enter the name of the Configuration Manager `Application` object with which Genesys Administrator is associated, or bound, when installed.

5. Enter a Host name, which is the name of the computer on which Configuration Server runs.

6. Enter a Port number, which is the communication port that client applications must use to connect to Configuration Server.

Appendix

B Genesys Desktop and Related Products

There is no direct migration from existing versions of Internet Contact Solution (ICS) and Genesys Contact Navigator Web (GCN Web) to Multimedia 7.6 and Genesys Desktop (GAD/GSD) 7.6.

However, the migration process from existing versions of Genesys Desktop 7.x to the 7.6 version is made possible by using certain data, which was created in previous versions, and updating this data in the 7.6 application. You may choose to continue using features from previous versions of Genesys Desktop; however, if you want to use 7.6 functionality, you must import and apply the latest GAD and GSD templates.

- For instructions that enable you to transition from previous versions of Genesys Desktop to Genesys Desktop 7.6, see Chapter 1, "Getting Started," in the *Genesys Desktop 7.6 Deployment Guide*.
- For instructions on how to transition from previous versions of Interaction SDK API to Genesys Developer Interaction SDK 7.6, refer to the *Interaction SDK 7.6 Java Developer's Guide*.
- For instructions on converting the ICS 6.x Contact Server database for use in Multimedia, see the chapter on transitioning to Multimedia from ICS 6.x in the *Multimedia 7.6 User's Guide*.

Genesys Desktop 7.2 to 7.5 Migration

During migration from Genesys Desktop 7.2 to 7.5, two default view profiles could be created in certain scenarios. They have the same name, but different IDs. One is the real default profile and the other is a copy. If the real profile is deleted, then a supervisor that is accessing the default profile may get the copy instead.

Genesys Desktop 7.5 to 7.6.x Migration

Table 325 details the following Genesys Desktop 7.5 options that have been renamed for 7.6 and later releases.

Table 325: Genesys Desktop 7.5 Options That Are Renamed in Genesys Desktop 7.6 and Later

7.5 Options	Renamed in 7.6
timeInStateRange=-1	time-in-state-range=-1
agentReasonsRange=-1	agent-reasons-range=-1
statDelay=-1	stat-delay=-1
loadScriptDelay=-1	load-script-delay=-1

For Genesys Desktop 7.6.3 and higher, access to Genesys Desktop Administrator requires the following option to be configured in the annex of the person object. In the `Security` section, add the option `Administrator` and set its value to 1.

Index

Numerics

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W

X