



Performance Management Advisors 8.1

Deployment Guide

The information contained herein is proprietary and confidential and cannot be disclosed or duplicated without the prior written consent of Genesys Telecommunications Laboratories, Inc.

Copyright © 2011–2013 Genesys Telecommunications Laboratories, Inc. All rights reserved.

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.genesyslab.com for more information.

Each product has its own documentation for online viewing at the Genesys Customer Care 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 Program Guide](#) 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.genesyslab.com

Document Version: 81pma_dep_10-2013_v8.1.502.00



Table of Contents

List of Procedures	11
Preface	15
About Advisors	15
Intended Audience	16
Making Comments on This Document	16
Contacting Genesys Customer Care	17
Document Change History	17
Release 8.1.502.00	17
Release 8.1.501.00	18
Release 8.1.403.00	20
Release 8.1.402.00	21
Release 8.1.401.00	22
Release 8.1.301.00	22
Release 8.1.201.00	23
Release 8.1.101.00	23
Chapter 1	25
Deployment Overview	25
Deployment Prerequisites	25
Deployment Process Overview	27
Software Distribution Contents	30
Deployment Notes	44
Creating the Advisors User Account in Configuration Server	45
CCAdv/WA Modes	47
Integrated CCAdv/WA Configuration Mode	48
Independent CCAdv/WA Configuration Mode	49
CCAdv Dashboard Display	50
Data Manager	50
Data Migration	51
Installation and Configuration	51
Account Permissions for Data Manager	52
Configuration in Advisors Administration Module	52
Configuration Server Integration	53

	Frontline Advisor Base Object Configuration	59
	Load Balancing	60
	Troubleshooting Data Manager in Release 8.1.5 and later	61
	Configuring Virtual Queues for Voice and Non-Voice	
	Statistics Requests	62
	Configuring Queue Type	62
	Establishing a TLS Connection to Genesys Configuration Server	64
	Advisors Configuration Properties Files for TLS	64
	Supported TLS Port Mode	65
	Supported TLS Providers	65
	TLS Properties File	65
	Troubleshooting the TLS Connection	66
	Scaling the System to Increase Capacity	66
	Advisors Cluster Information	69
	Encryption for AGA Metrics Database Data (Oracle)	69
	Providing a User Interface for Users with Visual Impairment	70
	Contact Center Advisor Mobile Edition	70
	Role-Based Access Control for Mobile Devices	71
	Mobile Edition Privileges	72
Part 1	Creating the Databases	75
Chapter 2	Creating a SQL Server Database	77
	Creating a SQL Server Database	77
	Assigning Additional User Permissions	90
	Database Migration Scripts	90
Chapter 3	Creating an Oracle 11g Database	93
	Creating an Oracle Database	93
Chapter 4	Oracle 11g: Configuring Metrics Data Sources	101
	Connectivity to AGA Metrics Schema when it is on the	
	Same Oracle Instance as the Platform Schema	101
	Connectivity to AGA Metrics Schema when it is on a	
	Different Oracle Instance than the Platform Schema	104
	Connectivity to Cisco ICM Data Source from Platform Database	
	on Oracle Instance	105
Chapter 5	Database Secure Deployment	109
	Secure Deployment for Oracle 11g	109

	List of Function-Based Indexes	111
	Secure Deployment for MS SQL Server 2008.....	112
Part 2	Deploying Advisor Components	115
Chapter 6	Deploying Advisors Platform	117
	Deploying Advisors Platform	117
	User Authentication	118
	Installation Process.....	119
	Deploying Platform	119
	Troubleshooting Installation Errors	137
	Changing Memory Allocations.....	139
	Changing the Members of an Advisors Cluster	140
	Configuring the Logs of Administrative Actions	141
	Modules for which Actions are Logged.....	141
	Modules for which Actions are Not Logged	141
	Actions Not Logged by This Functionality.....	142
	Information Logged	142
	Configuring the Audit Logs	142
	Changing a Data Source Configuration after Installation	143
	Changing the Mail Server Configuration After Server Installation	144
	Changing Encrypted Passwords After Installation.....	145
	Adding a Text Message on the Login Page	145
	Customizing the Logo and Colors in the Advisors Browser.....	146
	Deploying and Configuring Apache	147
	Configuring Apache to Support HTTPS	149
	Latency Getting to the Login page.....	151
Chapter 7	Deploying Genesys Adapter.....	153
	Prerequisites.....	153
	Installation Overview	154
	Dependencies and Notes	154
	Support for LoggedIn Scripts	156
	Deploying Genesys Adapter Manually	157
	Recreating the AGA metrics schema for Release 8.1.5	158
	Changing Memory Allocations.....	159
	Deploying the Adapter Core Service Component.....	160
	Operation of Stat Server Redundant Pairs	199
	Stat Server Statistics Load Balancing.....	199
	Notes on Genesys Adapter Configuration Parameters.....	201
	Notes on Stat Server Configuration Settings	205

	Disabling Agent-Level Monitoring	206
	Deploying the SDS Service	208
	Deploying Resource Management Console	217
	Deploying Multiple Instances of the Genesys Adapter Core Service	222
	Installation Notes	222
	Updating AGA Properties in the Database	223
	Adding Additional Stat Servers After Installation	224
	Troubleshooting Installation Errors	226
Chapter 8	Deploying Cisco Adapter	227
	Prerequisites	227
	Installation Summary	228
	Installation Contents	228
	Deploying the Cisco Adapter	229
	Deploying Multiple Instances of the Cisco Adapter on a Single Server	243
	Troubleshooting Installation Errors	245
Chapter 9	Deploying Contact Center Advisor and Workforce Advisor	247
	Deployment Notes	248
	Prerequisites	248
	Deploying CCAdv/WA Modules – 8.1.5	248
	Deploying CCAdv/WA Modules – 8.1.2 to 8.1.4	272
	Deploying CCAdv XML Generator Service – 8.1.2 to 8.1.4	286
	Workforce Advisor Option – 8.1.2 to 8.1.4	290
	Configuring Metric Graphing Properties	296
	Deploying the XML Generator as a Service	301
	Stopping and Starting XML Generator and CCAdv Web Service	302
	Modifying the XMLGen Configuration	303
	Modifying XML Generator Email Notifications about Logged Errors	304
	Changing the XML Generator Connection	305
	Configuring Forecast Metric Graph Shapes	305
	Notes for the Data Source Database Name	306
	JDBC Data Source Error Logging in XML Generator	306
	Custom Time Zones	307
	Changing the Time Period of Agent Groups Metrics from Now to 30 Mins after Installation	308
	Deploying the Genesys Advisors Browser	309
	Uninstalling the Genesys Advisors Browser	311
	Enabling the Browser Login Using HTTPS	311

Formatting Alert Messages Sent by Advisors.....	312
Language Order in Templates	317
Testing E-mail Sent by XML Generator	317
Disabling CCAdv Features	317
Importing Contact Groups into Advisors.....	318
Files for Contact Groups.....	318
Sending IEX TotalView files to WA using an FTP server	319
Contact Group Synchronization Log.....	320
File Names for Contact Groups	321
Contact Group File Header.....	324
How WA Distributes Metrics from eWFM.....	325
Importing Contact Groups with Fifteen Minute Forecasts into WA ...	325
WFM Systems Metrics Correspondences	327
Troubleshooting Installation Errors.....	328
 Chapter 10	
Deploying Frontline Advisor	331
Prerequisites.....	331
Installation Overview	332
Installation Contents	332
FA Hierarchy and Configuration Server	333
Deploying Frontline Advisor.....	334
Troubleshooting Installation Errors.....	347
Starting the Frontline Advisor Service	348
Verifying Server Connections	348
Verifying the Frontline Advisor Server Connection	348
Verifying Apache Routing	348
Verifying the Genesys Advisor Browser Connection	349
Integrating External Links	349
Changing the Values at the Enterprise Node.....	350
Configuring the Reason Code Statistic Key	350
Enabling and Editing Filtered Metrics.....	350
FA Message Listening Port.....	354
 Chapter 11	
Bulk Configuration	355
Before you Begin	355
Bulk Configuration of CCAdv/WA in Integrated Mode	356
Database Structures, Scripts, and Procedures.....	357
Prerequisites and Preparations	360
Bulk Configuration of CCAdv/WA in Integrated	
Configuration Mode	360
Data Preparation.....	364
Loading Data from Spreadsheets into Temporary	

Database Structures	366
Bulk Configuration Validation and Logs	368
Exporting CCAAdv/WA Configuration	369
Bulk Configuration of CCAAdv in Independent Configuration Mode.....	370
Database Structures, Scripts, and Procedures.....	370
Prerequisites and Preparations	371
Bulk Configuration of CCAAdv in Independent Configuration Mode	372
Data Preparation for Application names, Application Display names, and Aggregated Object Names	376
Loading Data from Spreadsheets into Temporary Database Structures	378
Bulk Configuration Validation and Logs	380
Exporting CCAAdv Configuration	381
Bulk Configuration of Workforce Advisor in Independent Configuration Mode	381
Database Structures, Scripts, and Procedures.....	382
Prerequisites and Preparations	383
Bulk Configuration of Contact Groups in WA independent Configuration Mode	384
Data Preparation for Contact Group Names, Contact Group Display Names and Aggregated Object Names	387
Loading Data from Spreadsheets into Temporary Database Structures	391
Bulk Configuration Validation and Logs	392
Chapter 12 Migration Utilities	395
Running the User Migration Utility	395
Running the Advisors Object Migration Wizard	397
Migration Paths	397
Using the Object Migration Wizard to migrate AGA Configuration ...	405
Chapter 13 Deployment Generics.....	411
Automated Installation Options.....	411
Specifying Input Properties	411
Performing a Semi-Silent Installation.....	412
Performing a Silent Installation	412
Advisor Component Names	413
Installing Services under Windows 2008 Server	414
Adjusting the Log File Roll and Retention Settings	414

Supplements	Related Documentation Resources	417
	Document Conventions	420
Index	423



List of Procedures

Modifying the CCAAdv statistics template to specify a metric filter name for a metric for one metric	59
Creating the database	77
Creating a login to be used by the database	81
Creating linked servers for the database	84
Creating objects in the database	89
Creating an Oracle 11g database.	96
Configuring Connectivity to AGA Metrics Schema when on the Same Oracle instance as the Platform Schema.	102
Configuring Connectivity to AGA Metrics Schema when it is on a Different Oracle Instance than the Platform Schema	104
Configuring Connectivity to Cisco ICM from an Oracle Instance	106
Uninstalling Windows services	119
Deploying Platform	120
Changing a Data Source Configuration after Installation	143
Changing the Mail Server configuration after Platform server is installed.	144
Changing an encrypted password	145
Customizing the logo and colors	146
Deploying and configuring Apache.	147
Generating the SSL security certificate and private key.	150
Reconfiguring Apache to support HTTPS	150
Deploying Stat Server and MCR extensions	155
Deploying Genesys Adapter manually	157
Recreating the AGA Metrics Schema for Release 8.1.5	159
Deploying the Core Service component – 8.1.5.	160
Deploying the Core Service component – 8.1.2 to 8.1.4	176
Disabling updates of the Agent Skill Group Real Time table on the metrics database	207

Disabling the agent level statistics templates for CCAdv	207
Deploying the SDS service	208
Deploying Resource Management console	217
Deploying multiple instances of Genesys Adapter core service on single server	222
Updating AGA properties in the database	223
Adding additional Stat Servers after installation (release 8.1.5)	224
Adding additional Stat Servers after installation (prior to release 8.1.5)	225
Deploying the Cisco Adapter	229
Deploying multiple instances of Cisco Adapter on a single server	243
Deploying CCAdv/WA Modules in Release 8.1.5	249
Upgrading an existing CCAdv-ME Installation	270
Deploying Blackberry Clients	271
Deploying Android clients	271
Deploying CCAdv/WA Modules in Releases 8.1.2 to 8.1.4	272
Deploying the XML Generator	286
Deploying Workforce Advisor Option	291
Changing the time period of graphed values	297
Changing the duration of historical values retained for graphing	298
Changing the duration of future values displayed for graphing	299
Changing the interval in seconds between values	299
Changing whether graphed values start at midnight	301
Deploying XML Generator as a service	301
Removing XMLGen as a service	302
Stopping and Starting XML Generator and CCAdv Server	303
Modifying the XMLGen Configuration	303
Reviewing JDBC data source error logs	307
Configuring custom time zones	307
Changing the Period Type Text in the Agent Groups Pane and in Column Chooser for CCAdv and WA	308
Configuring the AGA Database to Collect Agent Group Metrics for an Updated Time Period	309
Deploying the Genesys Advisors Browser	310
Uninstalling the Genesys Advisors Browser	311
Testing e-mail sent by XML generator	317

Deploying Frontline Advisor	334
Starting the Frontline Advisor Service	348
Enabling filtered metrics for Frontline Advisor	351
Editing the name of a filtered metric	353
Bulk Configuration – CCAdv/WA Integrated Configuration Mode	361
Importing Content into Tables (Oracle)	366
Importing Content into Tables (MS SQL)	367
Bulk Configuration – CCAdv Independent Configuration Mode	373
Importing Content into Tables (Oracle)	378
Importing Content into Tables (MS SQL)	379
Contact Group Bulk Configuration – WA Independent Configuration Mode	385
Importing Content into Tables	391
Running the user migration utility	396
Running the Advisors Object Migration Wizard	398
Adjusting the log file roll & retention settings	414



Preface

Welcome to the Genesys *Performance Management Advisors 8.1 Deployment Guide*. This document describes how to deploy all Advisors components for a full implementation.

This document is valid only for 8.1.x releases of this product.

Note: For versions of this document created for other releases of this product, visit the Genesys Customer Care website, or request the Documentation Library DVD, which you can order by e-mail from Genesys Order Management at orderman@genesyslab.com.

This preface contains the following sections:

- [About Advisors, page 15](#)
- [Intended Audience, page 16](#)
- [Making Comments on This Document, page 16](#)
- [Contacting Genesys Customer Care, page 17](#)
- [Document Change History, page 17](#)

For information about related resources and about the conventions that are used in this document, see the supplementary material starting on [page 417](#).

About Advisors

The Genesys Performance Management Advisors product family enables contact center business and operations managers and key users to see real-time graphical metrics and Key Performance Indicators based on their role. This enables them to quickly identify developing service and performance issues and take corrective action before customers and revenues are affected. With Genesys Advisors, agents can also manage their own performance in real time, correlate performance with supervisors and receive the information they need.

Genesys Contact Center Advisor creates visibility into real-time operations, allowing users to quickly determine the root cause of problems and collaborate to resolve them.

Genesys Workforce Advisor consolidates data from multiple switches and workforce management applications to help organizations more effectively manage the supply of agents against the ever-changing call demand in the contact center.

Genesys Frontline Advisor monitors contact center agent performance metrics and behavioral rules, alerting managers when business objectives are not being met and if calls are being handled outside of contact center performance guidelines. This breakthrough contact center performance monitoring allows supervisors to effectively coach-in-the-moment to improve agent performance and reduce turnover.

Genesys Agent Advisor allows contact center agents to self-manage their performance. Genesys Agent Advisor provides the agents with the same performance information the supervisor has and gives them the opportunity to proactively manage their own performance in real time.

Intended Audience

This document is primarily intended for system implementers and system administrators. It has been written with the assumption that you have a basic understanding of:

- Computer-telephony integration (CTI) concepts, processes, terminology, and applications.
- Network design and operation.
- Your own network configurations.

Making Comments on This Document

If you especially like or dislike anything about this document, feel free to e-mail your comments to Techpubs.webadmin@genesyslab.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 scope of this document only and to the way in which the information is presented. Contact your Genesys Account Representative or 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 Program Guide](#) for complete contact information and procedures.

Document Change History

This section describes information that has been added or substantially changed since the first release of this document.

Release 8.1.502.00

- Version 8.1.502.00 of this document is published to support Performance Management Advisors software release 8.1.401.
- Performance Management Advisors Release 8.1.401 includes support for a Transport Layer Security (TLS) connection to the Genesys Configuration Server. For information, see the following:
 - “Establishing a TLS Connection to Genesys Configuration Server” on [page 64](#)
 - [Procedure: Deploying Platform](#), on [page 120](#)
 - [Procedure: Deploying the Core Service component – 8.1.2 to 8.1.4](#), on [page 176](#)
 - “Notes on Genesys Adapter Configuration Parameters” on [page 201](#)
- Performance Management Advisors Release 8.1.401 includes support for Oracle Java Development Kit (JDK) 1.7. See “Deployment Prerequisites” on [page 25](#).
- Clarification has been added about the Advisors Genesys Adapter (AGA) metrics database for Release 8.1.5. If you migrate to Advisors Release 8.1.5, you do not migrate the Advisors Genesys Adapter metrics database; you must recreate the AGA metrics database(s) using the database creation script. For information, see the AGA entry in Table 1, “Distribution Artifacts,” on [page 30](#) and “Recreating the AGA metrics schema for Release 8.1.5” on [page 158](#). Also see additional information in [Procedure: Deploying Genesys Adapter manually](#), on [page 157](#).
- Clarification has been added about the Advisors cluster. See “Advisors Cluster Information” on [page 69](#) and “Changing the Members of an Advisors Cluster” on [page 140](#).

Release 8.1.501.00

- A property has been added to the System Configuration page in the Administration module to specify the configuration mode for Contact Center Advisor and Workforce Advisor:
 - Integrated CCAdv/WA configuration mode: Configuration in Workforce Advisor is dependent on configuration in Contact Center Advisor.
 - Independent CCAdv/WA configuration mode: Configuration in Workforce Advisor can be unique and independent of the Contact Center Advisor configuration structure.

For information about CCAdv/WA integrated and independent configuration modes, as well as other changes to the Administration module to support the modes, see “CCAdv/WA Modes” on [page 47](#).

- Data Manager now communicates with all Advisors Genesys Adapters, including Genesys Adapters for Contact Center Advisor. To use Data Manager for 8.1.5, you must migrate data from Advisors Genesys Adapter to the Platform database and to Genesys Configuration Server. The Advisors Object Migration wizard now includes this option.
 - For information about Data Manager for Release 8.1.5, see “Data Manager” on [page 50](#).
 - For changes to the Advisors Platform installer to support Data Manager, see [Procedure: Deploying Platform](#), on [page 120](#), specifically [Step 14](#).
 - For information about migrating data from AGA to the Platform database and Genesys Configuration Server, see “Running the Advisors Object Migration Wizard” on [page 397](#).
- Starting in Release 8.1.5, you have the option to horizontally scale both Workforce Advisor (WA) and Frontline Advisor (FA) to increase traffic capacity. For both applications, you can install the web services part on multiple nodes to more efficiently process requests from the associated Advisors browser module.
 - For more information about horizontal scaling, see “Scaling the System to Increase Capacity” on [page 66](#).
 - Information has been added to the Advisors Platform deployment procedure to provide direction if you are installing FA or WA on multiple nodes (distributed mode). See [Step 4](#) in [Procedure: Deploying Platform](#).
- You can encrypt sensitive data in the Advisors Genesys Adapter metrics database. For information about encryption support for data related to agent groups and queues, see “Encryption for AGA Metrics Database Data (Oracle)” on [page 69](#).

- The installation package to deploy Contact Center Advisor–Mobile Edition has been removed. You now use the Contact Center Advisor/Workforce Advisor installer to deploy the Contact Center Advisor–Mobile Edition application. Related to this, the *Genesys Performance Management Advisors Contact Center Advisor - Mobile Edition Deployment Guide* is consolidated with this book.
 - For information about Contact Center Advisor–Mobile Edition, see “Contact Center Advisor Mobile Edition” on [page 70](#).
 - For updates to the CCAdv/WA installer to support deployment of CCAdv–ME, see “Deploying CCAdv/WA Modules – 8.1.5” on [page 248](#).
 - For information about upgrading CCAdv–ME, see [Procedure: Upgrading an existing CCAdv-ME Installation](#), on [page 270](#).
 - For information about installing clients, see “Deploying Smartphone Client Applications” on [page 271](#).
 - For information about the ProxyPass statement to add to the `httpd.conf` file for CCAdv–ME, see [Step 1](#) in [Procedure: Deploying and configuring Apache](#).
- Prerequisites information has been added to the Advisors Platform deployment procedure. See [Procedure: Deploying Platform](#), on [page 120](#).
- Performance Management Advisors software release 8.1.5 support Genesys Management Framework 8.1.2, but do not fully support the password security authentication options available in Management Framework. A warning note has been added to [Step 18](#) of [Procedure: Deploying Platform](#) to provide direction to prevent accidental lock-out of users.
- You can perform a bulk configuration of contact groups for Workforce Advisor, as well as bulk configuration of Contact Center Advisor objects. For information, see [Chapter 11](#).
- The deployment installer for Advisors Genesys Adapter has been updated to accommodate functionality changes, including Data Manager. A new deployment procedure has been added to this book to describe the new installer. See [Procedure: Deploying the Core Service component – 8.1.5](#), on [page 160](#).
- The deployment installer for Contact Center Advisor and Workforce Advisor modules has been updated to accommodate functionality changes that improve performance. A new deployment procedure has been added to this book to describe the new installer. See “Deploying CCAdv/WA Modules – 8.1.5” on [page 248](#). All installation screens are included in this one procedure (including those for CCAdv–ME, the Workforce Advisor server options, and CCAdv XML Generator).
- You can adjust the graph shape used in the Metric Graphing window for forecast metrics. For more information, see “Configuring Forecast Metric Graph Shapes” on [page 305](#).

- A procedure has been added to this book that explains how to edit the name of an FA filtered metric. See [Procedure: Editing the name of a filtered metric](#), on [page 353](#).
- A chapter has been added to this book to describe bulk configuration procedures for CCAdv and WA. See Chapter 11, “Bulk Configuration,” on [page 355](#).

Release 8.1.403.00

- Advisors can now connect to Oracle Real Application Clusters (RAC). Information about Oracle RAC connectivity has been added in the following sections of this book:
 - Support for Oracle RAC connectivity is noted in “Deployment Prerequisites” on [page 25](#).
 - Find changes to the Platform installer to support Oracle RAC connectivity in [Procedure: Deploying Platform](#), on [page 120](#), beginning at [Step 23](#).
 - Find changes to the Advisors Genesys Adapter installer to support Oracle RAC connectivity in [Procedure: Deploying the Core Service component – 8.1.2 to 8.1.4](#), on [page 176](#), beginning at [Step 11](#).
 - Find changes to the Resource Management Console screens of the Advisors Genesys Adapter installer in [Procedure: Deploying Resource Management console](#), on [page 217](#).
 - Find changes to the Contact Center Advisor/Workforce Advisor module installer to support Oracle RAC connectivity in [Procedure: Deploying CCAdv/WA Modules in Releases 8.1.2 to 8.1.4](#), on [page 272](#), beginning at [Step 14](#).
 - Find changes to the Frontline Advisor module installer to support Oracle RAC connectivity in [Procedure: Deploying Frontline Advisor](#), on [page 334](#), beginning at [Step 15](#).
- The structure of the installation package for CCAdv/WA has been changed. Additional folders have been added to separate files into the following specific relational database management system (RDBMS) installations:
 - MS SQL Server Standard Edition
 - MS SQL Server Enterprise Edition
 - Oracle with the partitioning option
 - Oracle without the partitioning option.

For more information, see the CCAdv/WA entry in Table 1, “Distribution Artifacts,” on [page 30](#).

- A reference to the obsolete Genesys Adapter Administration module has been removed from [Procedure: Deploying Genesys Adapter manually \(Step 4\)](#). All Advisors administrative configuration is done in the Administration module; a standalone Genesys Adapter Administration module no longer exists in Advisors 8.1.2 and later.

Release 8.1.402.00

- The Release 8.1.4 Advisors Cisco Adapter database migration scripts have been added to the list of distribution artifacts. See the ACA entry in Table 1, “Distribution Artifacts,” on [page 30](#).
- A recommendation about the compatible Cisco ICM and IPCC version has been added. See “Deployment Notes” on [page 44](#).
- A clarification about the Advisors User account has been added. See “Creating the Advisors User Account in Configuration Server” on [page 45](#).
- An additional permission for the Advisors user account has been added. See the note about the Application folder in Table 2, “Permission for Advisors User Account,” on [page 45](#).
- The URL format for the FA manager dashboard that supports JAWS Standard version 11 has been added to “Providing a User Interface for Users with Visual Impairment” on [page 70](#).
- Corrections have been made to the information about configuring connectivity to metrics data sources. See Chapter 4, “Oracle 11g: Configuring Metrics Data Sources,” on [page 101](#).
- Information has been added about making changes to data source configuration after installation. See “Changing a Data Source Configuration after Installation” on [page 143](#).
- The procedure about customizing logos and colors in the Advisors browser has been updated. See “Customizing the Logo and Colors in the Advisors Browser” on [page 146](#).
- Corrections and clarification have been made in the procedure about deploying the Apache Web Server. See “Deploying and Configuring Apache” on [page 147](#).
- The name of the configuration file that must be updated if you are changing memory allocation for the Advisors Genesys Adapter has been corrected. See “Changing Memory Allocations” on [page 159](#).
- A correction has been made in the procedure for deploying the AGA core service component. Information about entering the port number for the Advisors Genesys Adapter web service is now available at the correct location in the procedure. See [Step 37](#) on [page 196](#).
- Information about supported workforce management systems has been added. See “Workforce Advisor Option – 8.1.2 to 8.1.4” on [page 290](#).
- Clarification has been added to information about connecting to the Genesys WFM when deploying the WA Web service. See [Procedure: Deploying Workforce Advisor Option](#), on [page 291](#), specifically [Step 9](#) and [Step 10](#).
- Clarification has been added to information about importing contact groups. See “Importing Contact Groups into Advisors” on [page 318](#).

Release 8.1.401.00

- Beginning in Release 8.1.4, Frontline Advisor includes performance metrics (both source and aggregated metrics) for which you must configure a filter to display the metrics for selection in the Column Chooser. For more information, see “Enabling and Editing Filtered Metrics” on [page 350](#).

Release 8.1.301.00

- In Release 8.1.3, Contact Center Advisor and Workforce Advisor support JAWS Standard version 11, an accessibility interface for users with visual impairment. For more information, see “Providing a User Interface for Users with Visual Impairment” on [page 70](#).
- There is a new object in the AGA metrics database in 8.1.3 associated with virtual queues requesting non-voice statistics. It is necessary to add permission for the Platform user to select from it. For information about the additional select permission, see “Configuring Connectivity to AGA Metrics Schema when on the Same Oracle instance as the Platform Schema” on [page 102](#) and “Connectivity to Cisco ICM Data Source from Platform Database on Oracle Instance” on [page 105](#).
- It is very important that you enter complete information on all installation screens when deploying the Advisors Platform. A note about this requirement is added to “Deploying Platform” on [page 119](#).
- Release 8.1.3 introduces a Metric Manager to the Administration module. Metric Manager replaces the Metrics administration page. The Metric Manager audit logs replace the Metrics logs. A note about this replacement is added to “Modules for which Actions are Logged” on [page 141](#).
- You can now specify the types of statistics supported on the Stat Server pair you are associating with a Genesys Adapter instance. You do this when installing the Genesys Adapter. For more information, see:
 - “Configuring Virtual Queues for Voice and Non-Voice Statistics Requests” on [page 62](#)
 - “Deploying the Adapter Core Service Component” on [page 160](#)
- When the agent group time period is set to 30 minutes, agent groups in a Cisco deployment display dashes. Genesys recommends a specific setting when configuring the agent group time period in a mixed environment (Cisco and Genesys deployments). For more information, see “Deploying the XML Generator” on [page 286](#).
- You can now specify the key that is used for the reason code statistic for a specific deployment of Frontline Advisor. For more information, see “Configuring the Reason Code Statistic Key” on [page 350](#).

- Release 8.1.3 introduces additional privileges for role-based access control. The new privileges are not defined in any existing Advisors role in the Configuration Server settings. Additional configuration is required if you are migrating from Release 8.1.2. For more information, see Chapter 12, “Migration Utilities,” on [page 395](#).

Release 8.1.201.00

- “Creating the Advisors User Account in Configuration Server” on [page 45](#)
- “Data Manager” on [page 50](#)
- “Configuring the Logs of Administrative Actions” on [page 141](#)
- “Stat Server Statistics Load Balancing” on [page 199](#)
- “Notes on Stat Server Configuration Settings” on [page 205](#)
- “Enabling the Browser Login Using HTTPS” on [page 311](#)
- “Language Order in Templates” on [page 317](#)
- “FA Hierarchy and Configuration Server” on [page 333](#)
- Chapter 12, “Migration Utilities,” on [page 395](#)

Release 8.1.101.00

- Installation process changes related to integration with Genesys Management Framework
- Installation process changes related to the hierarchy database for Frontline Advisor, which is now resides in the Genesys Configuration Server
- New optional configuration parameters for the processing and display of metrics and metric graphing



Chapter

1

Deployment Overview

This chapter gives an overview of deployment of an Advisors 8.1 solution:

- [Deployment Prerequisites, page 25](#)
- [Deployment Process Overview, page 27](#)
- [Software Distribution Contents, page 30](#)
- [Deployment Notes, page 44](#)
- [Creating the Advisors User Account in Configuration Server, page 45](#)
- [CCAdv/WA Modes, page 47](#)
- [Data Manager, page 50](#)
- [Configuring Virtual Queues for Voice and Non-Voice Statistics Requests, page 62](#)
- [Establishing a TLS Connection to Genesys Configuration Server, page 64](#)
- [Scaling the System to Increase Capacity, page 66](#)
- [Advisors Cluster Information, page 69](#)
- [Encryption for AGA Metrics Database Data \(Oracle\), page 69](#)
- [Providing a User Interface for Users with Visual Impairment, page 70](#)
- [Contact Center Advisor Mobile Edition, page 70](#)

Deployment Prerequisites

- | | |
|-----------------|---|
| Networks | Advisors components and all related components (Stat Server, Configuration Server) must be installed on the same network. |
| Software | <p>Before commencing Advisors deployment, ensure that the following external software is installed on the appropriate physical computer involved in Advisors installation:</p> <ul style="list-style-type: none">• Java Development Kit Installation, version JDK 1.6 or, starting in Release 8.1.401, Oracle JDK 1.7.• Flash Player 11 for non-IE browsers (such as Firefox). |

- Apache HTTP Server 2.2.6. Starting in Release 8.1.401, Advisors supports Apache HTTP Server 2.2.22.

Note: 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 will be able to use port 80.

- One of the following:
 - Microsoft SQL Server 2005 or Microsoft SQL Server 2008 – Genesys recommends that you use MS SQL Server Enterprise Edition for optimal performance, although Standard Edition is also supported. Beginning in Release 8.1.4, you can install the metric graphing feature with or without the MS SQL Server partitioning feature. The partitioning feature provides flexibility and can improve performance; partitioning has more options than non-partitioning for organizing the metric graphing data that comes from Workforce Advisor and Contact Center Advisor. You must use MS SQL Server Enterprise Edition if you plan to install metric graphing and use partitioning. MS SQL Server Standard Edition does not support the partitioning feature.
If you use MS SQL Enterprise Edition, but you do not use partitioning, you can use the script(s) from `\sql\mssql-standard`.
 - Oracle 11g – Beginning in Release 8.1.4, you can install the metric graphing feature with or without the Oracle database partitioning feature. The partitioning feature provides flexibility; partitioning has more options than non-partitioning for organizing the metric graphing data that comes from Workforce Advisor and Contact Center Advisor. Ensure you have Oracle Database Enterprise Edition with the partitioning option if you plan to install metric graphing and use partitioning.
If you use Oracle database software that includes the partitioning feature, but you do not use partitioning, you can use the scripts from `\sql\oracle-without-partitions`.
Beginning in Release 8.1.4, support is added for connection to Oracle Real Application Clusters (RAC).

- If using Oracle 10g or 11g, the appropriate Oracle JDBC driver is also required. You can obtain the driver from Oracle's website, www.oracle.com. Advisors requires versions compatible with supported JDK versions. (Drivers containing tracing code or compiled with `-g` option are not necessary.)

Note: The following Oracle JDBC drivers can be used:

- Oracle database 10g release 2 (10.2.0.4). The download file is `ojdbc14.jar`.
 - Oracle database 11g release 2 (11.2.0.2.0). The download file is `ojdbc6.jar`.
-

System Clocks All physical servers used in a given Advisors installation must have their system clocks synchronized with a central time server.

Deployment Process Overview

The high-level deployment process for an Advisors solution is described in [Task Summary: Deploying an Advisors Solution](#).

Task Summary: Deploying an Advisors Solution

Step	Task	Notes & References
1	Ensure that all the external prerequisites are in place.	See “Deployment Prerequisites” on page 25 .
2	Create the Advisors User account in Genesys Configuration Manager.	The Advisors User account is used by the Advisors products to connect to and retrieve information from the Configuration Server. See “Creating the Advisors User Account in Configuration Server” on page 45 .
3	For Release 8.1.5 only: create the Object Configuration User account in Configuration Manager.	The Object Configuration User account is configured in Configuration Server. The account is used to assign security permissions that allow object configuration for the CCAdv module in the Advisors Administration module (Base Object Configuration page). The user must be created in the Configuration Server before you install Advisors Platform. For information, see “Account Permissions for Data Manager” on page 52 .

Task Summary: Deploying an Advisors Solution (Continued)

Step	Task	Notes & References
4	Create the Platform database.	See either: <ul style="list-style-type: none"> Chapter 2, “Creating a SQL Server Database,” on page 77, or; Chapter 3, “Creating an Oracle 11g Database,” on page 93.
5	Install the Platform service, including Geronimo.	Unzip <code>advisors-platform-distribution- <version>.zip</code> into a temporary directory and check that all the build artifacts are present. See Chapter 6, “Deploying Advisors Platform,” on page 117 .
6	<p>Optionally, in releases 8.1.2 to 8.1.4, create either the Genesys Adapter or Cisco Adapter database if a Frontline Advisor installation is planned. Starting in Release 8.1.5, you require the Cisco Adapter database for a Frontline Advisor installation (in a Cisco environment). The Genesys Adapter database for FA is no longer required.</p> <p>Optionally, create Genesys Adapter databases for a Contact Center Advisor/Workforce Advisor installation. In releases prior to 8.1.5, note that you require two Genesys Adapter databases (Genesys Adapter Configuration database and Genesys Adapter Metrics database) for a CCAdv/WA installation. In release 8.1.5, you require the Genesys Adapter metrics database only.</p> <p>Adapter databases are not required for CCAdv/WA installations in Cisco-only environments.</p> <p>When both CCAdv and FA are installed, you must create one adapter database for CCAdv and another for FA.</p>	See either: <ul style="list-style-type: none"> Chapter 2, “Creating a SQL Server Database,” on page 77, or; Chapter 3, “Creating an Oracle 11g Database,” on page 93.

Task Summary: Deploying an Advisors Solution (Continued)

Step	Task	Notes & References
7	Install the core service for the Adapter(s) you plan to install.	<p>Unzip the relevant <code><component-name>-distribution-<version>.zip</code> into a temporary directory and check that all the build artifacts are present.</p> <ul style="list-style-type: none"> Chapter 7, “Deploying Genesys Adapter,” on page 153 Chapter 8, “Deploying Cisco Adapter,” on page 227 <p>A CCAdv/WA installation in a Cisco-only environment does not require a Genesys Adapter instance (or instances) installation.</p> <p>FA requires a Cisco Adapter instance for a Cisco environment and a Genesys Adapter instance (or instances) for a Genesys environment.</p> <p>Note that CCAdv/WA and FA cannot share Genesys Adapter instances.</p>
8	Optionally install Contact Center Advisor, Workforce Advisor, XML Generator, Advisors Browser, Resource Management, and Supervisor Desktop Service. Note: Resource Management is not available for the Cisco part of the installation.	<p>See Chapter 9, “Deploying Contact Center Advisor and Workforce Advisor,” on page 247.</p> <p>Platform must have been pre-installed on each physical server on which you install a Web application (such as Contact Center Advisor or Workforce Advisor).</p> <p>Servers running XMLGen require Advisors Platform to be installed.</p> <p>Resource Management is packaged with Advisors Genesys Adapter. For deployment instructions, see Chapter 7, “Deploying Genesys Adapter,” on page 153.</p>
9	Optionally, create the Frontline Advisor database.	<p>See either:</p> <ul style="list-style-type: none"> Chapter 2, “Creating a SQL Server Database,” on page 77, or; Chapter 3, “Creating an Oracle 11g Database,” on page 93.
10	Optionally, install Frontline Advisor/Agent Advisor.	See Chapter 10, “Deploying Frontline Advisor,” on page 331 .

Task Summary: Deploying an Advisors Solution (Continued)

Step	Task	Notes & References
11	Run the Advisors Migration wizard.	See “Running the Advisors Object Migration Wizard” on page 397 .
12	Make any additional configuration changes required.	See the relevant component chapters.

Please also refer to the information that applies across multiple components, which you can find in the following chapter:

- Chapter 13, “Deployment Generics,” on [page 411](#).

Software Distribution Contents

[Table 1](#) lists the contents of the Advisors software distribution.

Table 1: Distribution Artifacts

Advisors Component	Distribution Artifacts	Contents	Notes
Platform	advisors-platform-installer-<version>.jar		The installer for the Platform.
	advisors-migration-wizard-<version>.jar user-migration-util-<version>.jar (See “Running the User Migration Utility” on page 395)		Migration utilities located in supplement directory: <code>ip\supplement</code>
	baseweb-<version>-static-web.zip		A copy of the static files that can be served by Apache
	SQL Server platform-new-database-<version>.sql	Creates DB objects for MS SQL Platform database after the Platform database is created. Refer to “Creating a SQL Server Database” on page 77 for instructions about MS SQL Server database creation.	The creation and migration script for the Platform database for MSSQL. This script is located in the <code>sql\mssql</code> directory.

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
Platform cont'd	<p>Oracle</p> <p>For Releases up to, and including, 8.1.4:</p> <p>migrate_plt_<from version>_<to version>.sql</p> <p>(for example, migrate_plt_8.1.3_8.1.300.11.sql, where 8.1.300.11 means that the migration script will convert the platform schema to the build 8.1.300.11. The absence of the build number in the <from version> means that the script can be applied to the platform schema of any 8.1.3 version.)</p> <p>plt-<version>_INIT_DATA.sql</p> <p>plt-<version>_TBS.sql</p> <p>plt-<version>_Schema.sql</p> <p>plt-<version>_CUSTOM_ROUTINE.sql</p> <p>plt-<version>_ObjectsCustom.sql</p> <p>plt-<version>_ObjectsDefault.sql</p> <p>plt-<version>_ObjectsPlus.sql</p> <p>plt-<version>_Readme.txt</p> <p>plt-<version>_User.sql</p> <p>plt-<version>_ROUTINE.sql</p> <p>For Release 8.1.5 and later:</p> <p>advisors-platform-migrate_<old version>_<new version>.sql</p> <p>advisors-platform-<version>_CUSTOM_ROUTINE.sql</p> <p>advisors-platform-<version>_INIT_DATA.sql</p> <p>advisors-platform-<version>_ObjectsCustom.sql</p> <p>advisors-platform-<version>_ObjectsDefault.sql</p> <p>advisors-platform-<version>_ObjectsPlus.sql</p> <p>advisors-platform-<version>_Readme.txt</p> <p>advisors-platform-<version>_ROUTINE.sql</p>	<ol style="list-style-type: none"> 1. ..._CUSTOM_ROUTINE.sql Not to be executed manually. Used by the scripts in runtime. 2. .._INIT_DATA.sql Not to be executed manually. Used by the scripts in runtime. 3. ..._ROUTINE.sql Not to be executed manually. Used by the scripts in runtime. 4. ..._TBS.sql To be executed by a database user who has permission to create tablespaces. The script generates a resulting script, runTbsCre.sql, based on the user dialog input. The script issues a prompt which allows you to postpone the execution of the resulting script. If necessary, the resulting script can be customized to meet your needs and environment and executed later. A minimum requirement is to create at least one user default tablespace and a separate user temporary tablespace exclusively for the platform user/schema. In most cases, tablespaces are created by your DBA. The file can be used for DBA information as it shows sizing and possible table distribution among multiple tablespaces. Note, the sizing must be adjusted before the script execution. If created by the DBA, the DBA provides the tablespaces information to the engineer who proceeds with the installation. 	<p>The creation scripts for the Platform database for Oracle. These scripts are located in the sql\oracle directory.</p> <p>For additional details, please refer to:</p> <ul style="list-style-type: none"> • migrate_plt_Readme.txt, if present. Otherwise, refer to the Release Notes. • plt_Readme.txt, if present. Otherwise, refer to the Release Notes.

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
Platform cont'd	advisors-platform-<version>_Schema.sql advisors-platform-<version>_TBS.sql advisors-platform-<version>_User.sql	<p>5. ..User.sql Creates platform user and schema. To be executed by a database user who has permission to create other users. In most cases, users are created by your DBA. The file can be used as is or for DBA information as it shows user permission and tablespace requirements. If the user/schema is created by DBA, the DBA provides the relevant information to the engineer who proceeds with the installation.</p> <p>6. ...ObjectsPlus.sql An SQL*Plus script that creates all platform database objects. To be executed by the previously-created platform user and after all planned tablespaces are created.</p> <p>7. ...ObjectsCustom.sql An alternative script that has the same purpose as ...ObjectsPlus.sql, but can be executed from Oracle Sql Developer by the previously-created platform user and after all planned tablespaces are created. The script allows table and index distribution among multiple tablespaces by issuing pop-up prompts.</p> <p>8. ...ObjectsDefault.sql An alternative script similar to ...ObjectsCustom.sql that has the same purpose as ...ObjectsPlus.sql. To be executed from Oracle Sql Developer by the previously-created platform user. The script does not issue any pop-up prompts and creates all platform database objects in the platform user default tablespace assigned during platform user creation.</p>	

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
Platform cont'd		9. ..Schema.sql Creates the platform user, schema, and all database objects. To be executed by a database user who has permission to create other users. An alternative script that replaces, and has the same purpose as, ...User.sql and ...ObjectsPlus.sql combined.	
CCAdv/WA	ccadv-wa-server-installer-<version>.jar		The installer for CCAdv and WA modules, as well as CCAdv-ME starting in Release 8.1.5.
	SQL Server mg-new-database-<version>.sql		<p>The creation and migration database script for Metric Graphing for MS SQL. This script is located in the sql\mssql directory.</p> <p>If you are using the most recent version of 8.1.4 or later software, you have the following folders:</p> <ul style="list-style-type: none"> • mssql-standard (for installations that use MS SQL Standard Edition) • mssql-enterprise (for installations that use MS SQL Enterprise Edition) <p>Files within each folder use the same filename convention as previous releases. Ensure you use the files from the folder that corresponds to your edition of Microsoft SQL Server.</p>

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
CCAdv/WA cont'd	Oracle mg-<version>_User mg-<version>_TBS.sql mg-<version>_Schema.sql mg-<version>_ROUTINE.sql mg-<version>_ObjectsPlus mg-<version>_ObjectsDefault mg-<version>_ObjectsCustom mg-<version>_INIT_DATA.sql	<ol style="list-style-type: none"> 1. ..._CUSTOM_ROUTINE.sql Not to be executed manually. Used by the scripts in runtime. 2. ..._INIT_DATA.sql Not to be executed manually. Used by the scripts in runtime. 3. ..._ROUTINE.sql Not to be executed manually. Used by the scripts in runtime. 4. ..._TBS.sql To be executed by a database user who has permission to create tablespaces. The script generates a resulting script, runTbsCre.sql, based on the user dialog input. The script issues a prompt that allows you to postpone execution of the generated resulting script. If necessary, the resulting script can be customized to meet your needs and environment and executed later. A minimum requirement is to create at least one user default tablespace and a separate user temporary tablespace exclusively for the CCA/WA metric graphing user/schema. Note, the sizing must be adjusted before the script execution. In most cases tablespaces are created by your DBA. The file can be used for DBA information as it shows sizing and possible table distribution among multiple tablespaces. If created by the DBA, the DBA provides the tablespaces information to the engineer who proceeds with the installation. 	<p>The creation database scripts for Metric Graphing for Oracle. These scripts are located in the sql\oracle directory.</p> <p>If you are using the most recent version of 8.1.4 or later software, you have the following folders:</p> <ul style="list-style-type: none"> • oracle-without-partitions (for installations that use Oracle without the partitioning option) • oracle-with-partitions (for installations that use Oracle with the partitioning option) <p>Files within each folder use the same filename convention as previous releases. Ensure you use the files from the folder that corresponds to your edition of Oracle.</p> <p>For additional details, refer to the migrate_mg_8.1_<version> Readme.txt file, if present. Otherwise, refer to Release Notes.</p>

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
CCAdv/WA cont'd		<p>5. ...User.sql Creates the CCAdv/WA metrics graphing user and schema. To be executed by a database user who has permission to create other users. In most cases, users are created by your DBA. The file can be used as is or for DBA information as it shows user permission and tablespace requirements. If the user/schema is created by the DBA, the DBA provides the relevant information to the engineer who proceeds with the installation.</p> <p>6. ...ObjectsPlus.sql An SQL*Plus script that creates all CCA/WA database objects necessary for metrics graphing. To be executed by the previously-created CCAdv/WA metric graphing user and after all planned tablespaces are created.</p> <p>7. ...ObjectsCustom.sql An alternative script that has the same purpose as ...ObjectsPlus.sql, but can be executed from Oracle Sql Developer by the previously-created CCAdv/WA metric graphing user and after all planned tablespaces are created. The script allows table and index distribution among multiple tablespaces by issuing pop-up prompts.</p> <p>8. ...ObjectsDefault.sql An alternative script similar to ...ObjectsCustom.sql that has the same purpose as ...ObjectsPlus.sql. To be executed from Oracle Sql Developer by the previously-created CCAdv/WA metric graphing user. The script does not issue any pop-up prompts and creates all platform database objects in the platform user default tablespace assigned during platform user creation.</p>	

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
FA/AA	fa-server-installer- <version>.jar		The installer for FA/AA.
	SQL Server fa-new-database- <version>.sql fa-database-migration-3.1-to-3.3. sql fa-database-migration-3.3-to-8.0. sql fa-database-migration-8.0-to-8.1. sql fa-database-migration-8.1-to-8.1. 1.sql fa-database-migration-8.1.1-to-8. 1.2.sql fa-database-migration-8.1.2-to-8. 1.3.sql fa-database-migration-8.1.3-to-8. 1.4.sql fa-database-migration-8.1.4-to-8. 1.5.sql	Creates database objects for the MSSQL FA database after the FA database is created. Refer to “Creating a SQL Server Database” on page 77 for instruction about MSSQL Server database creation.	The creation and migration scripts for the FA/AA database for MSSQL. These scripts are located in the <code>mssql</code> and <code>mssql\migrations</code> directories.
	Oracle fa_<version>_TBS.sql fa_<version>_Schema.sql fa-new-database-<version>.sql fa-database-migration-8.1-to-8.1. 1.sql fa-database-migration-8.1.1-to-8. 1.2.sql fa-database-migration-8.1.2-to-8. 1.3.sql fa-database-migration-8.1.3-to-8. 1.4.sql fa-database-migration-8.1.4-to-8. 1.5.sql	1. fa_..._TBS.sql. The script creates FATBS_USER data tablespace and FATBS_TMP temporary tablespace under the path specified on the prompt and appends 'frontline' to this path sub-folder name. The script contains sizing recommendations. The sizing must be adjusted before the script execution. To be executed by a database user who has permission to create tablespaces. If it is necessary to change the suggested tablespace name and the file path, the script must be edited before its execution as follows: a. FATBS_USER must be replaced with another suitable tablespace name that needs to be used as the default FA user tablespace.	The creation and migration scripts for the FA/AA database for Oracle. These scripts are located in the <code>oracle</code> and <code>oracle\migrations</code> directories.

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
FA/AA cont'd		<p>b. FATBS_TMP must be replaced with another suitable tablespace name that must be used as the temporary FA user tablespace.</p> <p>c. Replace the line</p> <pre>fapath := ' ' fapath 'frontline' osfs;</pre> <p>with</p> <pre>fapath := ' ' fapath osfs;</pre> <p>to prevent the script from appending a 'frontline' sub-folder name to the specified path. In this case, the files are created under the path specified on the related prompt issued by the script when it is executed. The script generates a resulting script, runTbsCre.sql, based on user dialog input. If there is an error, the resulting script can be customized to the needs of the environment and executed again. A minimum requirement is to create at least one user default tablespace and a separate user temporary tablespace exclusively for FA user/schema.</p> <p>In most cases, tablespaces are created by your DBA. If created by the DBA, the DBA provides the tablespaces information to the engineer who proceeds with the installation.</p>	

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
FA/AA cont'd		<p>2. fa-new-database-....sql Creates all FA database objects. Executed by the previously-created FA user. In most cases, users are created by your DBA. The DBA can use fa_...Schema.sql for information about required user permissions and tablespace requirements. If the user/schema is created by the DBA, the DBA provides the relevant information to the engineer who proceeds with the database object creation and installation.</p> <p>3. fa_...Schema.sql Creates the FA user, schema, and all database objects. Replaces manual user creation and fa-new-database-....sql. To be executed by a database user who has permission to create other users. This is an alternative script normally used in non-production environments.</p>	
	SQL Server fa-hierarchy-mssql-<version>.sql hierarchy-migration-3.1-to-3.3.sql hierarchy-migration-3.3-to-8.0.sql hierarchy-migration-8.0-to-8.1.sql		The creation and migration scripts for the FA/AA Hierarchy database for MSSQL. These scripts are located in the mssql and mssql\migrations directories.
	Oracle Not applicable.		

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
AGA	aga-installer-<version>.jar		The installer for Genesys Adapter.
	SQL Server gc_core_newdb_<version>.sql (included with releases prior to 8.1.5) gc_core_migrate_<old version>_<new version>.sql (included with releases prior to 8.1.5) gc_metrics_newdb_<version>.sql gc_metrics_migrate_<old version>_<new version>.sql (included with releases prior to 8.1.5).		<p>The creation and migration scripts for the Genesys Adapter databases for MSSQL. These scripts are located in the configuration-schema\mssql directory.</p> <p>NOTE: Migration scripts are no longer required in Release 8.1.5. Also note that only the Genesys Adapter metrics database is required starting in Release 8.1.5. If you are migrating from a previous version to 8.1.5, you do not use a migration script. You must use the Release 8.1.5 metrics database creation script (gc_metrics_newdb_<version>.sql) to recreate the AGA metrics schema. For more information, see “Recreating the AGA metrics schema for Release 8.1.5” on page 158.</p>

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
AGA cont'd	<p>Oracle</p> <p>gc_cfg_new_<version>_TBS.sql (included with releases prior to 8.1.5)</p> <p>gc_cfg_new_<version>_Schema.sql (included with releases prior to 8.1.5)</p> <p>gc_cfg_new_<version>_DDL.sql (included with releases prior to 8.1.5)</p> <p>gc_metrics_new_<version>_ObjectsCustom.sql</p> <p>gc_metrics_new_<version>_ObjectsDefault.sql</p> <p>gc_metrics_new_<version>_ObjectsPlus.sql</p> <p>gc_metrics_new_<version>_ROUTINE.sql</p> <p>gc_metrics_new_<version>_User.sql</p> <p>gc_metrics_new_<version>_TBS.sql</p> <p>gc_metrics_new_<version>_Schema.sql</p> <p>gc_cfg_migrate_<old version>_<new version>.sql</p> <p>For example, gc_cfg_migrate_8.1.2_8.1.300.06.sql (included with releases prior to 8.1.5)</p> <p>gc_metrics_migrate_<old version>_<new version>.sql</p> <p>For example, gc_metrics_migrate_8.1.2_8.1.300.06.sql (included with releases prior to 8.1.5)</p>	<ol style="list-style-type: none"> 1. ..._ROUTINE.sql Not to be executed manually. Used by the scripts in runtime. 2. ..._TBS.sql To be executed by a database user who has permission to create tablespaces. The script contains some sizing recommendations. The sizing must be adjusted before the script execution. The script issues a prompt that allows you to postpone the actual tablespace creation. Instead, a resulting script, runTbsCre.sql, is generated based on the user dialog input. If necessary, the resulting script can be customized to the needs of the environment and executed later. A minimum requirement is to create at least one user default tablespace and a separate user temporary tablespace exclusively for AGA metrics user/schema. In most cases tablespaces are created by your DBA. If created by the DBA, the DBA provides the tablespaces information to the engineer who proceeds with the installation. 3. ...User.sql Creates the AGA metrics user and schema. To be executed by a database user who has permission to create other users. In most cases, users are created by your DBA. The file can be used as is or for DBA information as it shows user permission and tablespace requirements. If the user/schema is created by the DBA, the DBA provides the relevant information to the engineer who proceeds with the installation. 4. ...ObjectsPlus.sql An SQL*Plus script that creates all AGA metrics DB objects. To be executed by the previously-created AGA metrics user and after all the planned tablespaces are created. 	<p>The creation and migration scripts for the Genesys Adapter databases for Oracle. These scripts are located in the configuration-schema\oracle directory.</p> <p>NOTE: Migration scripts are no longer required in Release 8.1.5. Also note that only the Genesys Adapter metrics database is required starting in Release 8.1.5. If you are migrating from a previous version to 8.1.5, you do not use a migration script. You must use the Release 8.1.5 metrics database creation script (gc_metrics_new_<version>_Schema.sql) to recreate the AGA metrics schema. For more information, see “Recreating the AGA metrics schema for Release 8.1.5” on page 158.</p>

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
AGA cont'd		<p>5. ...ObjectsCustom.sql An alternative script that has the same purpose as ...ObjectsPlus.sql, but can be executed from Oracle Sql Developer by the previously-created AGA metrics user and after all the planned tablespaces are created. The script allows table and index distribution among multiple tablespaces by issuing pop-up prompts.</p> <p>6. ...ObjectsDefault.sql An alternative script similar to ...ObjectsCustom.sql that has the same purpose as ...ObjectsPlus.sql. To be executed from Oracle Sql Developer by the previously-created platform user. The script does not issue any pop-up prompts and creates all AGA metrics database objects in the platform user default tablespace assigned during platform user creation.</p> <p>7. ...Schema.sql Creates the AGA metrics user, schema, and all database objects. To be executed by a database user who has permission to create other users. An alternative script that replaces, and has the same purpose as, ...User.sql and ...ObjectsPlus.sql combined.</p>	

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
ACA	aca-installer-<version>.jar		The installer for Cisco Adapter
	SQL aca-new-database-<version>.sql aca-migration-3.3-to-8.0.sql aca-migration-8.0-to-8.1.sql aca-migration-8.1-to-8.1.1.sql aca-migration-8.1.1-to-8.1.2.sql aca-migration-8.1.2-to-8.1.3.sql aca-migration-8.1.3-to-8.1.4.sql aca-migration-8.1.4-to-8.1.5.sql GeneratePermsStatements.sql		The creation and migration scripts for the Cisco Adapter databases for MSSQL. These scripts are located in the <code>mssql</code> directory.
	Oracle aca-<version>_TBS.sql aca-<version>_Schema.sql aca-new-database-<version>.sql aca-migration-8.1-to-8.1.1.sql aca-migration-8.1.1-to-8.1.2.sql aca-migration-8.1.2-to-8.1.3.sql aca-migration-8.1.3-to-8.1.4.sql aca-migration-8.1.4-to-8.1.5.sql	1. aca_..._TBS.sql. The script creates ACATBS_USER data tablespace and ACATBS_TMP temporary tablespace under the path specified on the prompt. To be executed by a database user who has permission to create tablespaces. If necessary, the sizing can be adjusted before the script execution. If it is necessary to change the suggested tablespace names, the script must be edited before execution as follows: a. ACATBS_USER must be replaced with another suitable tablespace name that needs to be used as the default FA user tablespace.	The creation and migration scripts for the Cisco Adapter databases for Oracle. These scripts are located in the <code>oracle</code> directory.

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
ACA cont'd		<p>b. ACATBS_TMP must be replaced with another suitable tablespace name that must be used as the temporary ACA user tablespace. The script generates a resulting script, runTbsCre.sql, based on user dialog input. If there is any error, the resulting script can be customized to the needs and environment and executed again. A minimum requirement is to create one user default tablespace and a separate user temporary tablespace exclusively for the ACA user/schema. In most cases tablespaces are created by your DBA. If created by a DBA, the DBA provides the tablespaces information to the engineer who proceeds with the installation.</p> <p>2. faca-new-database-....sql Creates all ACA database objects. Executed by the previously-created ACA user. In most cases users are created by your DBA. The DBA can use aca_...Schema.sql (see the description below) for information about required user permissions and tablespace requirements. If the user/schema is created by the DBA, the DBA provides the relevant information to the engineer who proceeds with the database object creation and further installation.</p>	

Table 1: Distribution Artifacts (Continued)

Advisors Component	Distribution Artifacts	Contents	Notes
ACA cont'd		3. aca_...Schema.sql Creates the ACA user, schema and all database objects. Replaces manual user creation and aca-new-database-....sql. To be executed by a database user who has permission to create other users. This is an alternative script normally used in non-production environments.	
SDS	sds-installer-<version >.jar		The installer for Supervisor Desktop Service

Note: In 8.1.x releases, all Oracle scripts are creation scripts except those that contain the word `migrate` in the name. Any existing schema with the same name must be dropped prior to running the scripts.

In Release 8.1.1 and later, use the migration scripts when upgrading your software version.

Deployment Notes

- Alert e-mail templates are located in the <install_dir>\conf\templates directory.
- An 8.x version of the Advisors Browser can co-reside with a 3.x version on the same box; however, both versions cannot run on the same box simultaneously. Attempts to launch a second browser will only open another window for the running instance: for example, launching 3.3 and then 8.x will result in two 3.3 windows. For 8.x to co-reside with 3.X, you must do the following:
 - Agree to upgrade your browser to the later version found on the 8.x server, and
 - Agree not to remove the older version of the browser on your machine.
- The installation process has several distinct sections in order to accommodate different stages of system preparation. If some or all of the infrastructure software systems are already installed, various steps can be bypassed. It is important to get specific information about the location of these components from the original installer or the package manager.

- You cannot mix database types within an Advisors installation. Each installation must be either wholly MSSQL or wholly Oracle.
- Advisors requires the Genesys Configuration Server to be present, along with all its supporting components. For Releases 8.1.3 and 8.1.4, Genesys recommends you use Configuration Server 8.0.300.xx.
- If you use Cisco ICM and IPCC with Advisors, Genesys recommends you use Cisco ICM and IPCC version 4.6 or higher.

Creating the Advisors User Account in Configuration Server

In releases prior to 8.1.2, the Advisors suite used the default account to connect to the Configuration Server. This account has access to everything and therefore presents security problems.

In release 8.1.2 and later, a new account needs to be created in the Configuration Server that can be used by the Advisors products to connect to and retrieve information from the Configuration Server. In this document, the account is referred to as the Advisors User account, but you can give the account a name of your choice. That is, it is not necessary to name the account “Advisors User”. The permissions shown in Table 2 on [page 45](#) are required for this account.

Table 2: Permission for Advisors User Account

Object	Permissions	Notes
Applications folder	Execute	Only for Configuration Server 8.1.2 and later. Required for the Platform and AGA user account to connect to the Configuration Server and Stat Servers.
Stat Server Applications	Read	
Tenants	Read	
Agent Groups	Read, Read Permissions, Change, Change Permissions	Starting in Release 8.1.5, Change and Change Permissions are needed to propagate changes saved in the Base Object Configuration page to Configuration Server.
Switches	Read	

Table 2: Permission for Advisors User Account (Continued)

Object	Permissions	Notes
DNs (of type ACD Queues and Virtual Queues)	Read, Read Permissions, Change, Change Permissions	Starting in Release 8.1.5, Change and Change Permissions are needed to propagate changes saved in the Base Object Configuration page to Configuration Server.
Persons	Read, Read Permissions	
	Change	Only required if Advisors Administration module will be used to modify user accounts or RMC will be used to modify an agent's skill. See notes below.
Scripts (of type Interaction Queues)	Read, Read Permissions, Change, Change Permissions	Starting in Release 8.1.5, Change and Change Permissions are needed to propagate changes saved in the Base Object Configuration page to Configuration Server.
Access Groups	Read, Read Permissions	
	Change	Only required if Advisors Administration module will be used to modify user accounts. See notes below.
Roles	Read, Read Permissions	Used to determine functional permissions for users.
Business Attributes	Read, Read Permissions	Used to determine access to Advisors metadata objects.
Advisors Metrics Business Attributes	Read, Create, Change	Used for the Metric Manager beginning in Release 8.1.3.
Folders in Persons	Read, Read Permissions	Required for FA.
Folder in Agent Groups	Read, Read Permissions	Required for FA.

Example

Figure 1 on [page 47](#) shows an example of granting Read and Read Permissions access to an object.

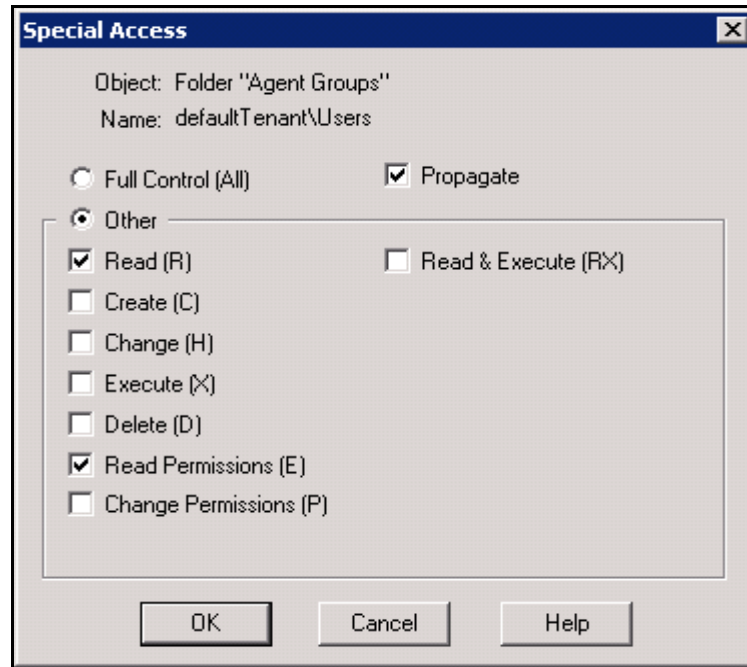


Figure 1: Configuring Read and Read Permissions Access for Advisors User Account

CCAdv/WA Modes

Starting in Release 8.1.5, you can choose between two Contact Center Advisor/Workforce Advisor configuration modes:

- Integrated CCAdv/WA configuration mode
- Independent CCAdv/WA configuration mode

Release 8.1.5 introduces independent configuration mode. It is still possible to configure CCAdv/WA in integrated mode, which was the method available in previous releases. The default mode is integrated configuration mode.

You specify the configuration mode on the **System Configuration** page of the **Administration** module.

The choice of the mode determines all further configuration processes, what data is stored, and how the configuration data is interpreted and used inside the application.

You can select the mode at any time on the **System Configuration** page (Integrated CCAdv/WA configuration = Yes or No).

A change to the parameter has an immediate impact on the application.

Both manual and bulk configuration options consider the configuration mode. For more information, see Chapter 11, “Bulk Configuration,” on [page 355](#).

In this section, the following terminology is used:

- *Configured application* is an application mapped to a contact center, an application group, a region, and/or an operating unit.
- *Configured contact group* is a contact group mapped to a contact center, an application group, a region, and/or an operating unit.

Integrated CCAdv/WA Configuration Mode

Earlier releases of the Advisors application included integrated, or dependent, configuration between Contact Center Advisor and Workforce Advisor. Starting in Release 8.1.5, to select integrated mode for CCAdv/WA, set the Integrated CCAdv/WA configuration parameter to Yes. The integrated configuration mode makes WA dependent on the CCAdv configuration structure.

After switching to integrated mode, the application applies the following rules automatically:

1. CCAdv applications mapped to WA contact groups contribute to contact group metrics only if they are included in the CCAdv rollup and these applications are mapped to the same aggregated objects as the associated contact groups (that is, contact centers, application groups, reporting regions, and operating units).
2. An agent group assigned to an application is automatically included (enabled) in the CCAdv rollup when you assign this agent group to an application mapped to a contact center and an application group.
3. Agent group-to-application relationships are automatically propagated to contact groups associated with these applications if the applications have properties described in 1 above.
4. An agent group assigned to an agent group contact center (AGCC) is automatically included (enabled) in the CCAdv rollup – under the network contact center (NCC) associated with that AGCC – when you assign this agent group to an application mapped to the NCC and the Include in CCAdv Rollup property for this agent group is set to Yes. If mapped to a contact group, such an agent group contributes to the related contact group metrics and becomes visible on the dashboard only when it is mapped to an application that has properties described in 1 above.

Changes to Functionality

It is no longer necessary to map contact groups to at least one application to generate WA dashboard views. If you map at least one contact group to a contact center, application group, and region (or operating unit), the dashboard view is generated and the forecast metrics display.

In the integrated mode, only configured applications mapped to the same contact center, application group, and regions appear as available for mapping to a contact group.

There are two new agent group properties:

- Include in CCAdv
- Include in WA

Both Include in CCAdv and Include in WA properties have a default setting of Yes in integrated mode.

In the integrated mode, setting Include in WA to Yes makes an agent group – agent group G, for example – available for mapping to a contact group – contact group C, for example – when:

- C is mapped to the same AGCC as G.
- There is a parent contact group – P – mapped to a configured application where the application is associated with the agent group G and where P is mapped to the parent NCC and the same application group and regions as C.

Independent CCAdv/WA Configuration Mode

To select the independent CCAdv/WA configuration mode, set the Integrated CCAdv/WA configuration parameter to No. In this configuration mode, WA operates independently from the CCAdv configuration structure.

After switching to independent mode, the application applies the following rules automatically:

1. All applications that are published, and not yet mapped to other contact groups, can be mapped to configured WA contact groups. Once mapped to configured contact groups, the applications contribute to real-time metrics for the contact groups.
2. You can manually assign any agent group to a configured WA contact group mapped to a network contact center (NCC).
3. Any agent group that is assigned to an agent group contact center (AGCC), and that has the Include in WA Rollup property set to Yes, can be mapped to configured WA contact groups that are also assigned to that AGCC.
4. An agent group can be mapped to multiple configured WA contact groups.
5. You can edit the Include in CCAdv and Include in WA agent group rollup properties. Agent groups appear on the CCAdv and WA dashboard views only if the corresponding Include in Rollup parameter is set to Yes.

Using the Include in Rollup Properties for Agent Groups

The Include in CCAdv and Include in WA agent group rollup properties control AGCC visibility in the independent CCAdv/WA configuration mode. The properties are applicable only to agent groups mapped to an AGCC.

When you set the Include in CCAdv rollup property to Y for an agent group, and that agent group is mapped to an AGCC, then the agent group and the AGCC are automatically enabled for CCAdv when you map the agent group to a configured application(s) that belongs to the associated NCC parent.

Changing the Include in CCAdv rollup value from N to Y automatically enables all AGCCs – and agent groups under this AGCC – if the agent groups are already mapped to a configured application(s) that belongs to the associated NCC parent.

If the Include in CCAdv rollup property is set to N for an agent group, that agent group does not appear in CCAdv configuration. An AGCC does not appear in CCAdv configuration if none of the agent groups mapped to it have the Include in CCAdv rollup property set to Y. If you do not want an AGCC used for WA to be visible on the CCAdv dashboard, then ensure you set the Include in CCAdv rollup property to N for all agent groups assigned to the AGCC.

CCAdv Dashboard Display

If an agent group is mapped to multiple agent group contact centers (AGCC) under the same network contact center, all AGCC names are listed in the row for that agent group in the Agent Groups pane of the CCAdv dashboard.

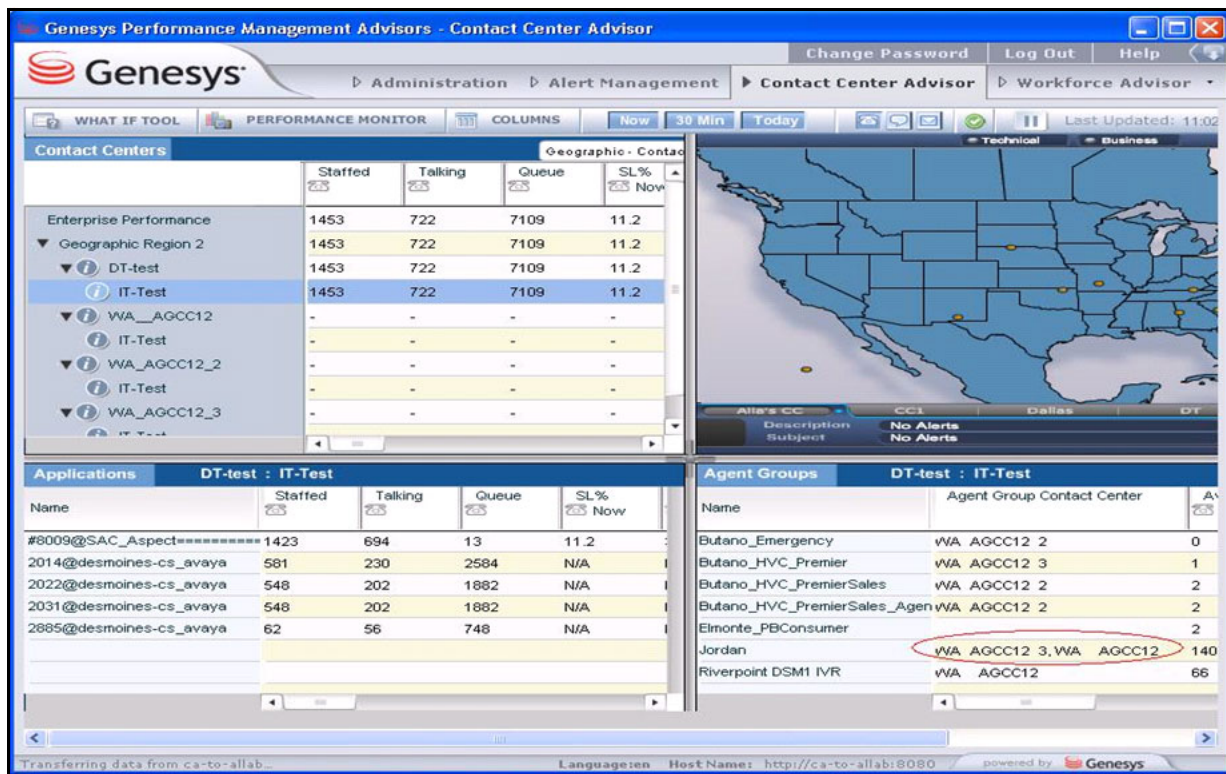


Figure 2: CCAdv dashboard showing multiple AGCCs in one row of the Agent Groups pane

Data Manager

Beginning in Release 8.1.2, the Data Manager feature provides the following new functionality:

- Support for multiple Genesys and Cisco Adapters
- Load balancing across multiple adapters using the same data source in a single Genesys environment (applicable to FA Genesys Adapters only in releases 8.1.2 to 8.1.5)

Starting in Release 8.1.5, Data Manager manages the flow of statistics from Advisors Genesys Adapters (AGA) to both Frontline Advisor (FA) and Contact Center Advisor/Workforce Advisor (CCAdv/WA). FA supported Data Manager starting in Release 8.1.2; CCAdv/WA support for Data Manager starts in Release 8.1.5.

In releases prior to 8.1.5, CCAdv was more or less disconnected from Advisors Genesys Adapter (AGA). CCAdv relied on the output from Advisors XML Generator, which was in turn fed by data provided by AGA. Moreover, AGA's configuration was considered authoritative—when you opened the `Object Configuration` page in the Administration module, the configuration data was fetched from the Adapter and displayed.

With the introduction of Data Manager to CCAdv, Data Manager is considered to hold the authoritative configuration data. Data Manager monitors Adapters to ensure that the issued statistics conform to its configuration.

Data Manager uses statistics template definitions to determine the statistics requests that need to be sent to the Genesys Adapters for each Advisors module (such as CCAdv or FA).

Data Manager uses a handshake protocol to establish connection with all adapters.

Data Migration

In Release 8.1.5, source metric definitions and statistics templates stored in the Adapter database must be migrated to the corresponding platform tables. The migration includes any custom metrics you use in your enterprise and must be done for all Advisors modules that use Genesys Adapter. The source metrics that migrate to the platform tables are for the CCAdv, WA, and FA modules that require Genesys data sources. The statistics templates that migrate to the platform tables are only for the CCAdv and WA modules. Because the FA statistics templates are of a transient nature, there is no need to migrate them and the migration tool ignores them. You use the Advisors Object Migration wizard to migrate the data from AGA to Advisors Platform and the Genesys Configuration Server.

For more information about migrating data, see “Running the Advisors Object Migration Wizard” on [page 397](#) and “Using the Object Migration Wizard to migrate AGA Configuration” on [page 405](#).

Installation and Configuration

During the installation of any Adapter, the installer optionally prompts for:

- The connection details for the Platform database
- A unique name for the Adapter and the source environment (source environment is not prompted for in a Genesys environment).

This information, along with the Adapter's host name, port and type (GENESYS or CISC0) is written to the Platform database. Data Manager uses this configuration information to establish connections to all installed Adapters.

The Adapter type is always set to either GENESYS or CISC0. In releases prior to 8.1.5, even if you choose to bypass Adapter registration, you are prompted for the port number on which it will listen. In Release 8.1.5, you must register all Genesys Adapters, although you can choose to bypass Cisco Adapter registration.

**Object
Configuration
User account**

Starting in Release 8.1.5, you must configure a user account in Configuration Server so security permissions can be assigned to allow object configuration for the CCAdv module in the Advisors Administration module (Base Object Configuration page). This is the "Object Configuration User". The user must be created in the Configuration Server before you install Advisors Platform. Advisors Platform installer prompts you for the account name (see [Step 14](#) in [Procedure: Deploying Platform](#)).

Account Permissions for Data Manager

Starting in Release 8.1.5, you must create the Object Configuration User account in Genesys Configuration Manager. You create this user account in the Configuration Server as a container for security permissions for objects (agent groups and queues). The Object Configuration User requires Read permission for any object that should be considered a configured or monitored object.

The Platform Configuration Server user (that is, the Advisors User account) also requires specific permissions to manage object configuration in Configuration Manager related to Data Manager. See "Creating the Advisors User Account in Configuration Server" on [page 45](#).

Configuration in Advisors Administration Module

For Genesys Adapters in Releases 8.1.2 to 8.1.4, this configuration can be viewed and modified using the existing Manage Adapters page of the Administration module. The New and Delete buttons in the Manage Adapters page continue to operate as before, but Data Manager only reads the Adapter configuration once at startup, so any configuration change, including adding or removing Adapters, requires Contact Center Advisor to be restarted before these changes take effect.

In Release 8.1.5, the Manage Adapters page is read-only. To make changes to the properties for a Advisors Genesys Adapter, update the configuration in the database (see "Updating AGA Properties in the Database" on [page 223](#)). You use the Base Object Configuration page in the Administration Module to

manage objects. The following Figure shows the Base Object Configuration page for Release 8.1.5.

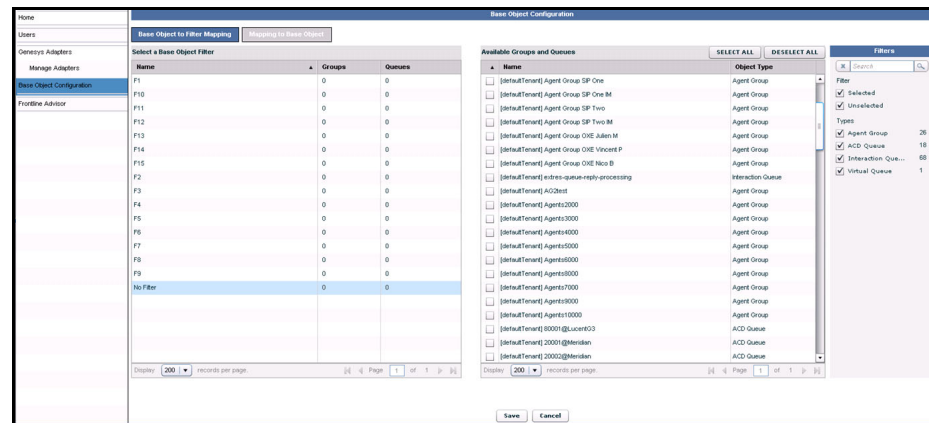


Figure 3: Base Object Configuration page in the Administration Module

The changes in Release 8.1.5 to the page where you configure objects (Base Object Configuration) include:

- The link to the object configuration page (now called Base Object Configuration) is one level higher in the navigation tree. Previously, the page was accessed from the Genesys Adapters area of the interface.
- The object configuration is done once and independently of any underlying adapters.
- Information is consolidated as compared to previous releases; there are only two tabs on the Base Object Configuration page.
- You can identify and filter objects by object type on both mapping screens.
- The page displays the count of configured objects.
- The page prevents contradictory configuration. If you select No Filter for an object, and later attempt to assign a filter, you receive an error message. You must de-select No Filter before a filter can be assigned to that object.

To perform object configuration, you no longer select a specific Genesys Adapter to which to connect because statistic distribution is handled automatically. The associations that display on the Base Object Configuration page are no longer tied to a selected Adapter, but instead represent a global configuration for CCAdv/WA.

Configuration Server Integration

The Data Manager feature uses the Configuration Server connection provided by Platform to load Genesys object metadata from Configuration Server. In Releases 8.1.2 to 8.1.4, this is limited to Person objects for providing Frontline Advisor with agent source metrics. The metadata includes:

- Object Type
- Object ID

- External ID
- Source Environment

The Object Type/Object ID combination (known as *node ID*) allows an object to be uniquely identified. This node ID is used when applications need to reference a specific object within the Configuration Server.

The object referenced by the node ID will have a different identifier in the external source environment. Data Manager is responsible for translating the node ID provided by the application into the appropriate external ID when forwarding requests to the appropriate Adapter.

Starting in Release 8.1.5, the object identifier in metadata is composed of the following:

- ObjectID: The DBID for the object (provided by Configuration Server).
- ObjectType: One of Agent, AgentGroup, or Queue.
- TenantName
- ObjectName:
 - For Genesys agents: EmployeeId
 - For Agent Groups and Queues: the name provided by Configuration Server
 - For Cisco Agents: N/A

It is assumed that one single data source can supply all statistics of a specific statistic type for a given object.

Changes in configuration made on the Base Object Configuration page are saved in the Configuration Server for incorporation. Therefore, the Configuration Server system user that is configured on the platform installation (that is, the Advisors user account) should have Change and Change Permissions privileges on the agent groups or queues that are monitored, as well as Read and Read Privilege access permissions for the Advisors User account (see Table 2 on [page 45](#)).

Configured objects are stored in the Configuration Server as security permissions of the Object Configuration User account. The agent groups and queues to which the Object Configuration User has Read access permission are treated as the configured objects for CCAdv/WA. If this user has access to agent groups or queues when Data Manager starts, Data Manager immediately issues statistics requests to the configured Genesys Adapter(s).

**Propagation of
Configuration
Changes made in
Configuration
Manager**

Changes made in Configuration Manager on configured objects (agent groups, queues, or interaction queues) affect the Base Object Configuration page in the Administration module as follows:

- The addition of an object to the Configuration Server is reflected on the Base Object Configuration page on page reload.
- A name change on an existing object is reflected on the Base Object Configuration page on page reload.

- Any change in an object's Annex properties, such as filter or queue type, is reflected on the `Base Object Configuration` page on restart of the Platform server.
- The addition of the Read permission on an object (new or existing) for the Object Configuration User is reflected on the `Base Object Configuration` page only after the overnight refresh or on restart of the Platform server. If you change one or more objects to be a monitored object in the Configuration Server or Configuration Manager, the additional statistics for those additional objects are not immediately requested. They are scheduled to be picked up during the overnight refresh, at which time the and additional statistics are requested. Similarly, if you remove the Read permission on an object for the Object Configuration User, statistics are not closed immediately—that happens during the overnight refresh.

If you need any of the above changes (adding a object or removing an object to or from being monitored) to be immediately available, make the changes on the `Base Object Configuration` page instead of making them in Configuration Manager.

Base Object Configuration Page Users and Permissions

The master list of objects in the `Base Object Configuration` page in the Administration Module is the list of agent groups and queues for which the Advisors User account has Read access permission.

When the administrator adds more objects to monitor from the available objects, the Object Configuration User is automatically granted Read access permission for those objects in Configuration Server. When the administrator removes existing configured objects, the Read access permission for those objects is revoked for the Object Configuration User.

The objects for which the Object Configuration User has Read permission should always be the same set or a subset of the objects for which the Advisors User account has Read access permission. If there are objects for which the Object Configuration User has Read access permission, but the Advisors User account does not, those objects are not considered and do not display on the `Object Configuration` page. Genesys recommends that you always configure the Advisors User account and the Object Configuration User to be two distinct accounts (not one user account used as both). If one account is used for both users, the administrative user could not add new objects using the Object Configuration page (all objects would be configured objects); the user could view and remove currently configured objects only.

Filter Configuration

Starting in Release 8.1.5, the master list of filters for Advisors (for CCAdv, WA, or FA) no longer comes from the Stat Server configuration, but from the

Business Attributes configured in the Configuration Server. You can see the list under **Advisors Filters** in the **Advisors Business Attributes** section of the Configuration Manager (see the following Figure).

Note: The **Advisors Filters** business attribute must exist on one – and only one – tenant. Genesys recommends you configure the **Advisors Filters** business attribute on a tenant that is the default tenant for the Advisors suite installation, on which you configure all Advisors metadata. If there are **Advisors Filters** business attributes configured on multiple tenants, an error message displays when Genesys Adapter starts, and the filters are not loaded.

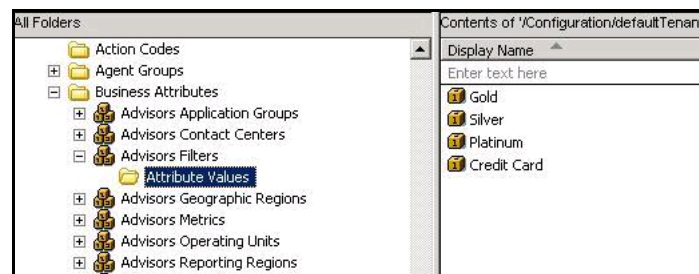


Figure 4: Advisors Filters in Configuration Manager

The filter expression is in the **Description** field on the **General** tab of the filter's **Properties** window. In a migration scenario, the Migration utility migrates existing filters from the Stat Server configuration to be the **Advisors Filter** business attributes, and populates the **Description** field with the filter expression. You configure any additional filters you require by entering the filter expression as the description of the filter. The following Figure shows an example.

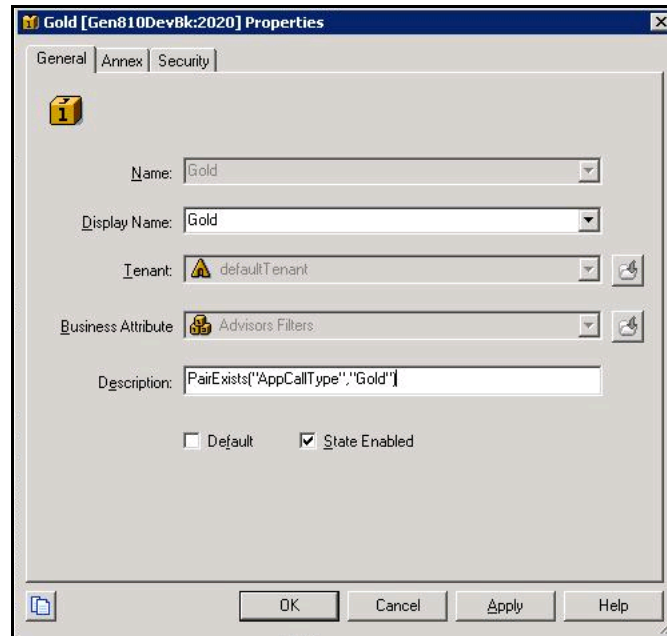


Figure 5: General Properties for a filter in Configuration Manager

When filters are associated with configured objects on the Base Object Configuration page in the Administration module, the filter and object combination is stored on the Annex tab of the object's Properties window. The following Figures show an example.

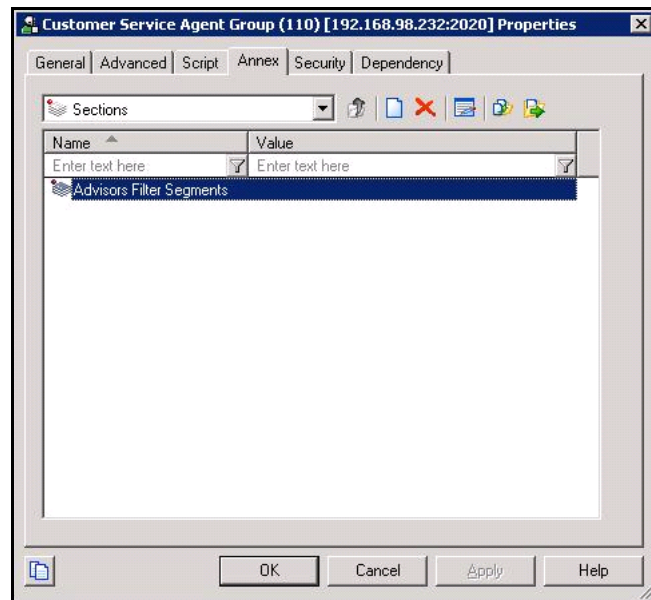


Figure 6: Annex tab with a stored filter segment

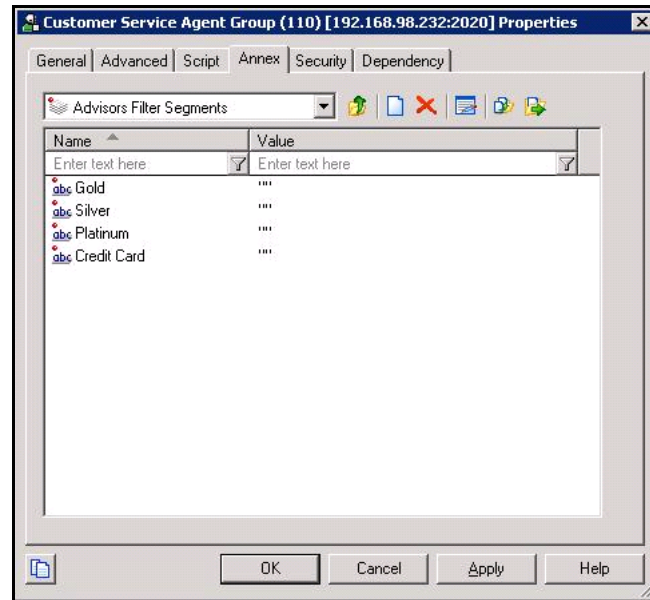


Figure 7: Annex tab showing the filters associated with the object

Data Manager uses the configured filters from the Annex properties of the object when it requests statistics. When one or more filter combinations is applied, Data Manager requests statistics for each filter. For example, if three filters (Gold, Silver and Platinum) are combined with an ACD Queue object, then three variations of CallsHandled are requested. The three filters are individually applied to yield three statistics: CallsHandled.Gold, CallsHandled.Silver, and CallsHandled.Platinum. If no filters are applied to an object, then only one statistic is requested for each source metric for that object.

Filters and Interaction Queues

Filter categorization is not applicable for interaction queue statistics. No Filter is the only option you can successfully apply to interaction queues. If you attempt to combine filters with an interaction queue, the filters are discarded and the No Filter option is automatically selected again.

Procedure:**Modifying the CCAdv statistics template to specify a metric filter name for a metric for one metric**

Purpose: If you want to configure a filter on the individual source metric, you can use following procedure.

Note: If there is already a filter applied at the object level from the Base Object Configuration page (for example, Filter A), and you specify an additional filter as a metric filter (for example, Filter B) at the statistics template, the effective filter applied at the statistics level is an "AND" filter that contains the two filter expressions:
(Filter A & Filter B)

Start of procedure

1. Ensure the filter to be configured exists as a business attribute value under the `Advisors Filters` business attribute of the default tenant.
2. Identify the statistic template(s), in the Platform database `statistics_templates` table, that corresponds to the metric for which you want to specify filters.
3. Run the following update statement:

```
update statistics_templates set metricFilter = <name_of_filter>
where templateId = ?
```
4. If the Advisors suite server and Genesys Adapters are running, you must restart them.

End of procedure

Frontline Advisor Base Object Configuration

For each source environment in which a given object is present, a corresponding object must exist in the Configuration Manager.

Where the object already exists in the Genesys environment (that is, it handles interactions monitored by Genesys components, the `External ID` has the format:

[Tenant Name] Employee ID

For all other source environments, the object must be created and an entry must be added to the object's `Annex` tab under an `Advisors` section. The key for each such entry has the format:

ExternalId.SourceEnvironment

The value is the ExternalID itself.

For Genesys Adapters, the source Environment is always GENESYS.

The Cisco Adapter installer prompts for the environment name, with the default value CISCO.

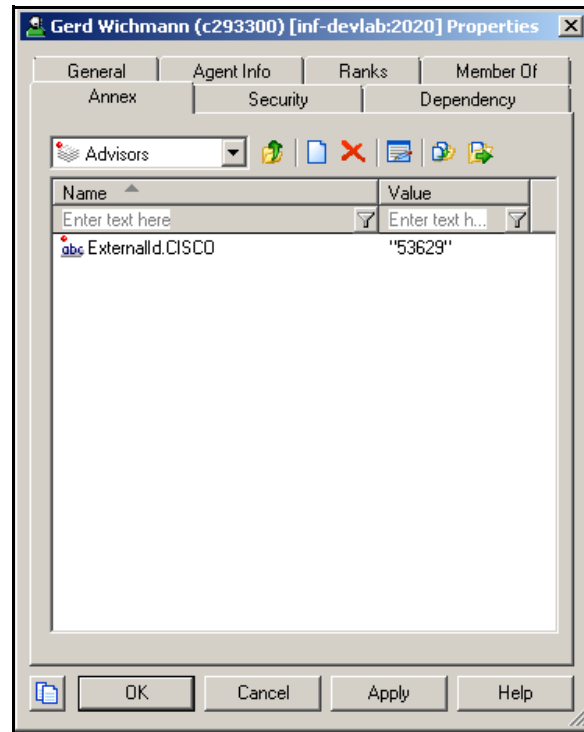


Figure 8: Setting the External ID for a Cisco Agent to their Agent Skill ID

Load Balancing

When two or more Adapters share the same source environment, this indicates that they are connected to the same underlying data provider infrastructure and hence are all able to provide the same set of source metrics.

Data Manager is free to select from any Adapter with the same source environment to issue a given statistic. Data Manager attempts to distribute sets of statistics for a given source evenly across all Adapters associated with that source.

Furthermore, once a statistic is opened for a given object with an Adapter, all subsequent statistics for that object will be opened using the same Adapter. This helps maintain (but does not guarantee) consistency among related metrics reported for this object.

In Releases 8.1.2 to 8.1.4, Data Manager, as used by Frontline Advisor, routed all statistics for a given base object to the same Adapter capable of providing

source metrics for that base object. In Release 8.1.5, statistics for a given object can span multiple Adapters, but only if the associated metrics have different Stat Server Type (SST) attributes. Examples of SST include Core (which all Stat Servers can provide), Interaction Queue, and Open Media. Statistics are partitioned by (object,SST). Each (object,SST) group is issued against the same Adapter. The Adapter requires the following:

- a source environment that matches the object's External ID
- a Stat Server Type supported by the Adapter

If a limited number of Adapters support metrics of a specific SST, such as Open Media, statistics of this type constitute the bulk of statistics issued to these Adapters. Statistics for more generally-supported metrics, such as Voice, are concentrated with Adapters that do not support such specialized statistic types.

Cisco Impact

Advisors Cisco Adapter is used with FA only. Because the Cisco Adapter automatically collects metrics for all agents in that source environment, there is no benefit to load balancing across multiple instances. The only scenario where multiple Cisco Adapters should be installed is if they provide metrics from separate HDS/AWDB source environments.

Troubleshooting Data Manager in Release 8.1.5 and later

If there are no Genesys Adapters installed or configured for a given module (for example, CCAdv), Data Manager cannot issue statistics for that module. This condition (that there are no supported Adapters) is reported in the `geronimo.log` file as a warning message. After installing an Adapter for the module, you must restart the Advisors Suite server.

If there is one or more Genesys Adapter installed and configured for a given module, but the Adapter is not running or is unreachable, Data Manager cannot request statistics for that module. This condition is reported in the `geronimo.log` file as an error message with an exception (`Multiple Adapters Exception`). The error is no longer reported after the configured Adapter is started.

For the CCAdv module, an Object Configuration User must be specified when you install Advisors Platform. If configuration of this user name is skipped or missing, no statistics are issued with the Adapters. This is indicated by an information message in the Platform `geronimo.log` file. The information message indicates that no statistics are requested because no agent groups and queues are found. To correct this, you can update `genesys.configServer.objectconfig-username` in the Platform `GenesysConfig.properties` file. Restart Platform after you update the properties file.

If the Object Configuration User does not exist in the Genesys Configuration Server, an error message is logged in the form of an exception. Create the user in Configuration Server, and update `genesys.configServer.objectconfig-username` in the Platform `GenesysConfig.properties` file. Restart Platform after you update the properties file.

Note: For the FA module, whenever the Advisors Suite server (Platform server) is restarted, you should also restart all Genesys Adapters that are configured for the FA module.

Configuring Virtual Queues for Voice and Non-Voice Statistics Requests

Beginning in Release 8.1.3, virtual queues support core and third-party media queue statistics.

If your environment uses third-party media statistics, you must have a corresponding Java Stat Server extension installed on the respective Stat Servers. To avoid having to install Java extensions on all the configured Advisors Stat Servers, Release 8.1.3 introduces a configuration option with which you can identify the configured Stat Servers to use to request specific types of statistics when statistics are requested from a pool of configured Stat Server pairs. 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. The configuration option is part of the Genesys Adapter installation process.

For information about installing Genesys Adapter, including the option to associate specific types of statistics with a Stat Server pair, see “Deploying the Adapter Core Service Component” on [page 160](#).

Configuring Queue Type

Both core and third-party media statistics can be requested on virtual queues. Beginning in Release 8.1.3, there is additional configuration in Configuration Manager to enable identification of `NonVoiceOnly` virtual queues. This configuration is optional. Depending on the types of statistics you request from your Stat Servers, this configuration may not be required in your environment.

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. For a specific virtual queue in Configuration Manager, use the Annex tab of that virtual queue to specify the queue type option to be `NonVoiceOnly` (see [Figure 9](#)). Create the Advisors section and configure the queue type, as required. The following configuration options for queue type are available:

- If you do not configure the queue type, then both core and third-party media statistics are requested for a given virtual queue.
- Only third-party media statistics are requested if you configure the queue type as `NonVoiceOnly` for a given virtual queue.
- Only core statistics are requested if you configure the queue type as `VoiceOnly` for a given virtual queue.

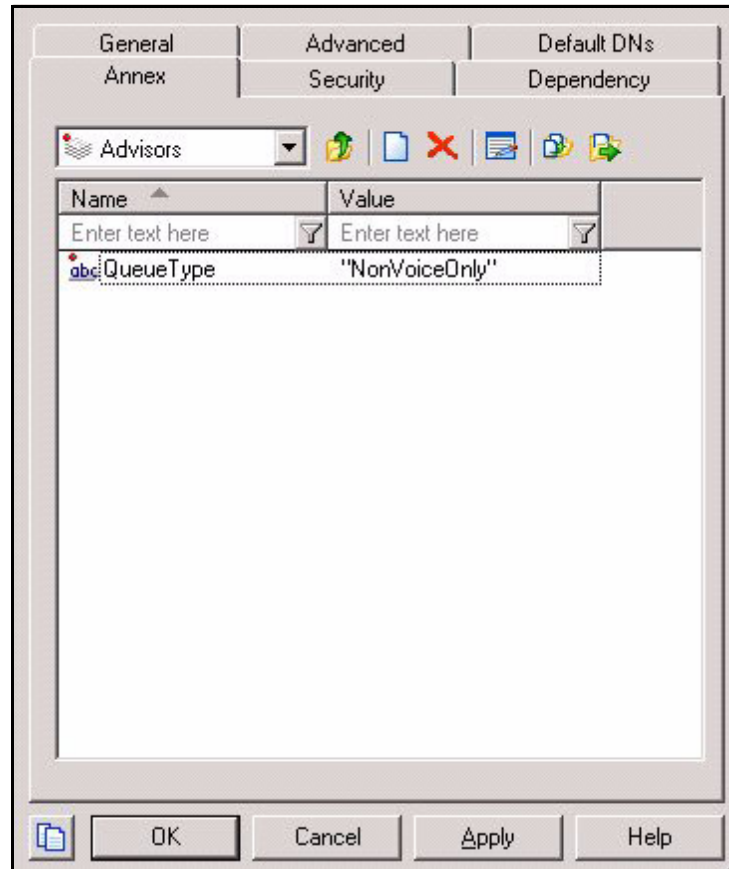


Figure 9: Configuring a NonVoiceOnly queue in Configuration Server

The configuration of a `NonVoiceOnly` queue is supported on virtual queues only, and not on ACD queues or interaction queues. Starting in Release 8.1.5, this is the only way to ensure only one type of statistics (either voice or non-voice) is requested on a virtual queue. If this not configured on a virtual queue, all configured queue statistics are requested for that virtual queue.

Establishing a TLS Connection to Genesys Configuration Server

- Performance Management Advisors Release 8.1.401 support optional TLS connection to the Genesys Configuration Server. Both the Advisors Suite Server (the Platform server) and the Advisors Genesys Adapter (AGA) can establish individual TLS connections to the Configuration Server. CCAdv, WA, FA, and AA also have a secure connection to the Configuration Server if you enable a TLS connection on Advisors Platform.
- If you plan to connect to the Configuration Server using TLS, you must first do the following:
- Configure a secure port for Genesys Configuration Server. For more information, see *Genesys 8.1 Security Deployment Guide*.
- Configure security certificates.
 - Configure the security providers and issue security certificates. For more information, see [Genesys 8.1 Platform SDK Developer's Guide](#).
 - Assign a certificate to the Configuration Server host in Configuration Manager. For more information, see *Genesys 8.1 Security Deployment Guide*.

You can use the same certificates for both AGA and Advisors Platform, if you enable a TLS connection on both, because all the same components are involved in the subsequent interactions across the TLS connection.

To configure a TLS connection to the Configuration Server, you can select this option on the installation screen when you deploy Advisors Platform and AGA, or you can enable TLS post-deployment using the properties files. If you have a backup Genesys Configuration Server and you enable a TLS connection to the primary Configuration Server when deploying AGA, AGA also connects to the backup Configuration Server using TLS.

If a TLS connection to Configuration Server cannot be established when you start the installed instance of Advisors Platform or AGA, error messages are logged in the log file. You can correct the TLS properties supplied during installation in the relevant property file post-installation.

Advisors Configuration Properties Files for TLS

The Advisors Platform properties file, `<PLATFORM_INSTALL>/conf/GenesysConfig.properties`, has the following TLS-related properties:

- `genesys.configServer.tlsproperties.file`
- `genesys.configServer.tls.port`
- `genesys.configServer.tls.enabled`

The AGA properties file, `<AGA_INSTALL>/conf/inf_genesys_adapter.properties`, has the following TLS-related properties:

- `genesys_connector.configServer.tls.enabled`
- `genesys_connector.configServer.tls.port`
- `genesys_connector.configServer.tlsproperties.file`

You can enable or disable the TLS connection to Configuration Server by changing the `configServer.tls.enabled` flag to `true` (enables TLS) or `false` (disables TLS) on a Platform installation or on an AGA installation. If you did not enable TLS initially during deployment, you can change the `configServer.tls.enabled` flag to `true`, but you must also add the TLS port and the TLS property file information using the relevant properties file (Platform or AGA) to fully enable TLS support post-installation.

Supported TLS Port Mode

You configure the port mode on the Configuration Server. There are three port modes for TLS configuration, but for an Advisors TLS connection to Genesys Configuration Server, only the upgrade port mode is supported. The upgrade port mode allows an unsecured connection to be established; the connection switches to TLS mode only after Advisors retrieves the TLS settings from Configuration Server.

Supported TLS Providers

Advisors support the following security providers:

- PEM
- MSCAPI
- PKCS#11

TLS Properties File

The TLS properties file is not supplied with Advisors distribution; it is unique to your enterprise. You must create a TLS properties file before deploying Advisors Platform or AGA if you intend to enable a TLS connection to the Genesys Configuration Server during Advisors installation. The Advisors Platform and AGA installers prompt for the location of the TLS properties file. The TLS configuration required to support each provider varies slightly, but each can be configured uniquely in a properties file. You can save the TLS properties file using any filename you choose.

The TLS properties file uses a simple key value pair format. On each line of the file, a key is followed by an equal sign (=), which is followed by a value for the key. For example:

```

provider=PEM
certificate=C:/advisors/security/conf/client1-cert.pem
certificate-key=C:/advisors/security/conf/client1-key.pem
trusted-ca=C:/advisors/security/conf/ca.pem
tls-crl=C:/advisors/security/conf/crl.pem
tls-mutual=0

```

In the preceding example, the provider key has a value of PEM identifying the security provider type. For this particular provider, additional security parameters (keys) must be supplied, and which are included in the example. You must copy the certificate files to a folder on the local hard drive.

The TLS properties file path you enter during installation (or in the Advisors Platform or AGA properties file post-installation) points to those security files. On a Windows OS, do not use a backslash (\) in the file path to separate folders; use a slash (/) only.

Note: The TLS property flags `tls=0` and `tls=1` are valid properties to indicate if the TLS connection is enabled or disabled, but the Advisors `configServer.tls.enabled` property flag overrides the property in the TLS properties file. That is, setting or resetting the TLS property to indicate TLS is enabled or disabled in the `tls.properties` file has no effect on an Advisors connection to Configuration Server.

For information about supported TLS properties, see that section in the [Genesys 8.1 Platform SDK Developer's Guide](#).

Troubleshooting the TLS Connection

When Advisors Platform or AGA attempt to establish the TLS connection to Configuration Server, progress is written in the log file. You can ignore a warning message in the log file that indicates that there is no TLS configuration for Advisors found in the Configuration Server. Advisors is not an application configured in Configuration Server, therefore it returns an empty configuration and relies on the TLS configuration supplied by the connection properties.

For information about troubleshooting issues with TLS connections, see *Genesys 8.1 Security Deployment Guide*.

Scaling the System to Increase Capacity

Starting in Release 8.1.2, you have the option to horizontally scale the web services module for Contact Center Advisor (CCAdv). Starting in Release

8.1.5, you also have the option to horizontally scale both Workforce Advisor (WA) and Frontline Advisor (FA).

Frontline Advisor Starting in Release 8.1.5, FA supports a distributed mode. You can deploy FA on multiple servers or hosts in distributed mode.

[Figure 10](#) shows a basic installation of Frontline Advisor. This is called standalone mode; there is one FA server that provides both the aggregation and presentation layers to support the FA module in the Advisors browser.

[Figure 11](#) shows Frontline Advisor deployed in distributed mode. In distributed mode, all FA instances share the Platform database and FA database. Only one FA instance, the FA engine, performs data aggregation. You enable the rollup engine on this FA instance during installation. 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. You disable the rollup engine on each such member of the distributed cluster during installation.

For the procedure to deploy FA in standalone or distributed mode, see [Procedure: Deploying Frontline Advisor](#).

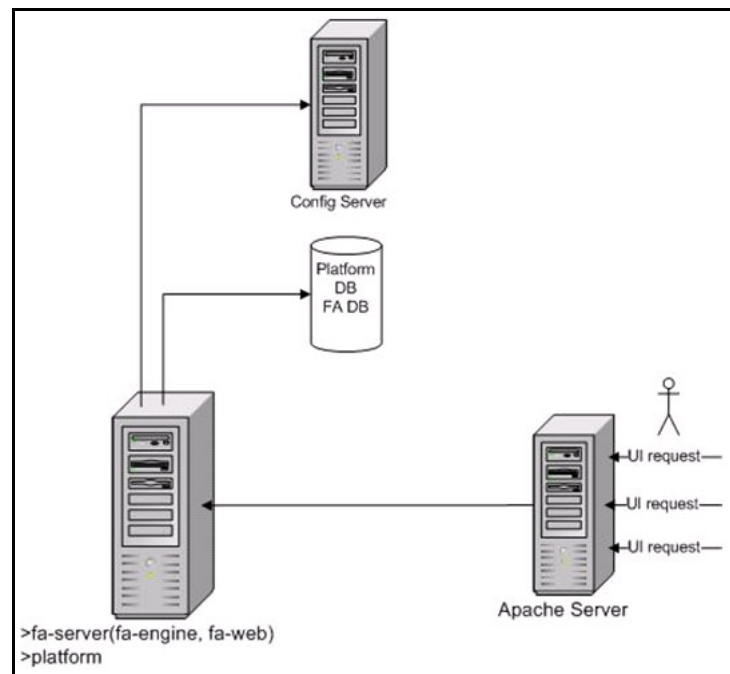


Figure 10: Architecture of the FA standalone mode

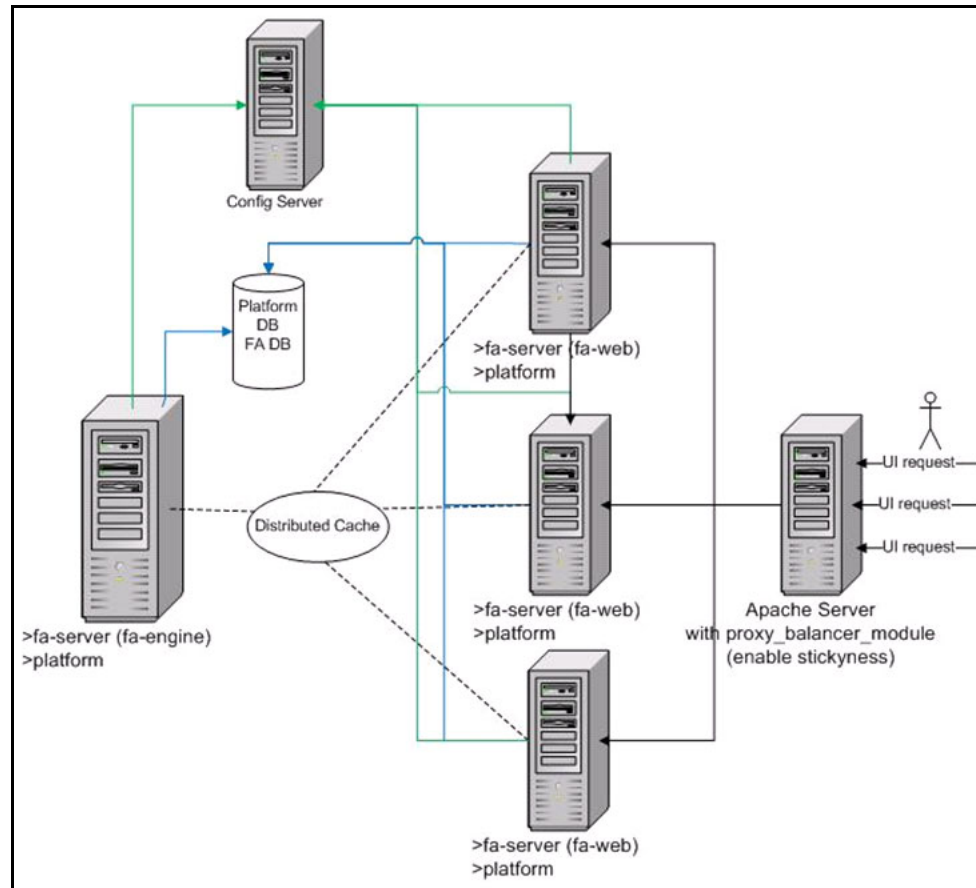


Figure 11: Architecture of the FA distributed mode

Workforce Advisor Similar to Frontline Advisor distributed mode, you can install WA web services on multiple WA nodes. To accomplish this, the *calculation* functionality of WA is separated from the *presentation* functionality. The CCAdv/WA installer offers two choices for WA installation:

- Workforce Advisor server: Reads data from external systems and calculates WA's metrics.
- Workforce Advisor web services: Responds to requests from clients and sends data about metrics and alerts to clients.

For changes to the CCAdv/WA installer, see “Deploying CCAdv/WA Modules – 8.1.5” on [page 248](#).

Contact Center Advisor You can install CCAdv web services on multiple CCAdv nodes. The CCAdv/WA installer offers the following options for CCAdv installation:

- CCAdv XML Generator: Reads data from external systems and calculates CCAdv's metrics.
- CCAdv web services: Responds to requests from clients and sends data about metrics and alerts to clients.

For changes to the CCAdv/WA installer, see “Deploying CCAdv/WA Modules – 8.1.5” on [page 248](#).

Advisors Cluster Information

Every system on which you install a module in the Advisors suite, where the module uses an Advisors Platform database, is a node in a cluster.

A *module* is an application in the Advisors suite that you can install separate from other applications. For example, a WA Server or Contact Center Advisor XML Generator is a module.

A node in a cluster is also referred to as a member of the cluster. Even if you install Advisors on only one system, that system is a node in a cluster containing that one system.

A system that is a node in a cluster can run one Advisors module, or more than one Advisors module. For example, the WA server and WA web services are two modules, and you can install both on the same node. Alternatively, you can install the WA server on one cluster member, and WA web services on another cluster member.

Members of the cluster communicate to share data that is cached in memory, and to share data to perform workflows that require more than one module.

For instructions about how to modify a cluster after you have installed Advisors, see “Changing the Members of an Advisors Cluster” on [page 140](#).

Encryption for AGA Metrics Database Data (Oracle)

Advisors Genesys Adapter (AGA) metrics schema objects hold metadata related to queues and agent groups, and save snapshots of the real-time queue and agent group metrics produced by the Genesys Stat Server. If you categorize this as sensitive data within your enterprise that should be secured, Genesys recommends placing AGA metrics schema objects into a separate tablespace and securing the tablespace with Oracle TDE tablespace encryption. Use common standardized ciphering methods:

- 3DES168
- AES128
- AES192, or
- AES256

Considering the specifics of AGA data flow and the real-time nature of the Advisors application, Genesys does not recommend TDE column encryption for AGA.

Oracle 11g documentation contains detailed information about TDE.

Providing a User Interface for Users with Visual Impairment

Beginning in Release 8.1.3, Contact Center Advisor and Workforce Advisor support JAWS Standard version 11, an accessibility interface for users with visual impairment. JAWS provides audio and a series of keyboard shortcuts for navigating the tabulated information on the screen. If you have users in your enterprise who require this type of user interface, you must ensure those users have Internet Explorer 6 or higher (Genesys recommends that you use Internet Explorer 8) to use the JAWS functionality.

Frontline Advisor (manager console) also supports JAWS Standard version 11.

The CCAdv login page URL uses the following format:

`http(s)://<server>[:port]/ca-xml/accessibleDashboard[?language=<en|de|fr>]`

The WA login page URL uses the following format:

`http(s)://<server>[:port]/wu/accessibleDashboard[?language=<en|de|fr>]`

The FA login page URL uses the following format:

`http(s)://<server>[:port]/fa/accessibleSupervisorDashboard[?language=<en|de|fr>]`

See Release Notes specific to the Advisors software release you use for the list of supported languages – not all languages are supported in all releases.

The server and port variables relate to the server or servers on which you have installed CCAdv and WA. The functionality to work with JAWS is installed when you install CCAdv and WA—there is no additional installation or configuration required. Users specify their language preference at login; again, no additional configuration is required to provide language options.

Note: In Release 8.1.3, Advisors supports only English (default) and German languages in user interfaces. If you are using these user interfaces with servers installed in a German locale, ensure you specify `?language=de` in the URL. Using the default language (English) in the user interfaces with servers installed in a German locale causes the user interface to behave unpredictably.

Contact Center Advisor Mobile Edition

Starting in Release 8.1.5, Contact Center Advisor - Mobile Edition (CCAdv - ME) installation is an option in the CCAdv/WA module installer. See “Deploying CCAdv/WA Modules – 8.1.5” on [page 248](#).

Role-Based Access Control for Mobile Devices

It is important to define a basic set of permissions in Configuration Server, so that users can view objects and functionality in the Application interface. For example, users with permissions to the CCAdv module (and ME) and permissions to view the Performance Monitor will not be able to view anything if they do not have access to any of the metrics and/or business attributes. They can log in to the Advisor interface, but the real-time tab will not render if they do not have permissions to at least one metric.

Permissions

Users who have access to ME will need the following minimum permissions:

- permissions to at least one contact center and/or application
- permissions to one of the following objects:
 - reporting region
 - geographic region, or
 - operating unit
- permissions to at least one metric

Note: If a user does not have permissions to view any of the default metrics, the first metric that displays in the ME Metrics or Hierarchy list is the first metric in the Column Chooser Available metrics list to which the user does have access permissions.

Using object permissions, you can assign a user's access permission to certain objects. When you apply permissions to an object, they apply equally to all properties of the object—if a user has access permissions, they see the entire object.

Starting in 8.1.4, CCAdv-ME loads metrics dynamically, based on user permissions taken from the server cache. It loads the metrics through `/ca-ws/columns.do`, to ensure the metrics information is up-to-date. If metrics permissions change after a user chooses to display that metric, it is displayed with no data. However, when a user reselects the metrics to display, the list is refreshed.

The following permissions are implemented in the CCAdv-ME `MapResource`:

- metrics
- operating units
- reporting regions
- geographical regions
- contact centers
- application groups

Relevant objects are loaded on-demand, based on the user access permissions granted for each object.

Mobile Edition Privileges

Compared to Contact Center Advisor, the Mobile Edition has limited functionality. Therefore, CCAdv-ME requires only a subset of functional privileges. The following Table provides a comparison of CCAdv privileges to Mobile Edition privileges.

Table 3: Comparison of CCAdv Privileges to Mobile Edition Privileges

Privileges	In CCAdv	In ME
ContactCenterAdvisor.Dashboard.canView	✓	✓
ContactCenterAdvisor.Dashboard.AgentGroupsPane.canView	✓	
ContactCenterAdvisor.Dashboard.ColumnChooser.canView	✓	✓
ContactCenterAdvisor.Dashboard.EnterpriseStats.canView	✓	✓
ContactCenterAdvisor.Dashboard.PivotSelect.canView	✓	
ContactCenterAdvisor.PerformanceMonitor.canView	✓	✓
ContactCenterAdvisor.PerformanceMonitor.CallFlowPane.canView	✓	✓
ContactCenterAdvisor.PerformanceMonitor.CurrentCapacity.canView	✓	✓
ContactCenterAdvisor.ActionManagementReport.canView	✓	
ContactCenterAdvisor.AlertManagement.canView	✓	

Dashboard Privilege

The Dashboard privilege (ContactCenterAdvisor.Dashboard.canView) controls access to the CCAdv dashboard.

Users with this privilege can access the CCAdv dashboard, the CCAdv tab in the Advisor browser, and log in to CCAdv-ME.

Note: Users cannot log in to CCAdv-ME if they do not have the privilege to access the Dashboard.

Column Chooser Privilege

The Column Chooser privilege (ContactCenterAdvisor.Dashboard.ColumnChooser.canView) determines which metrics the user can choose for display.

Users with this privilege can choose which metrics to display on the dashboard, access the Column Chooser button on the dashboard, and access the Metrics tab in the Mobile application.

Note: Users will either see a disabled Metrics tab (iOS) or will not see the Metrics menu/button (Blackberry) if they do not have the privilege to access Column Chooser.

**Enterprise Stats
Privilege**

The Enterprise Stats privilege (ContactCenterAdvisor.Dashboard.EnterpriseStats.canView) controls the display of Enterprise Stats row in the dashboard.

Users with this privilege can see the Enterprise Performance row in the dashboard.

Note: Users will see N/A in the Enterprise Performance row in the dashboard, if they do not have the privilege to access Enterprise Stats.

**Performance
Monitor Privilege**

The Performance Monitor privilege (ContactCenterAdvisor.PerformanceMonitor.canView) determines who can view the Performance Monitor.

Users with this privilege can access to the Performance Monitor button on the dashboard and the right-arrow button (which directs to the Performance Monitor view) on each row of stats.

Note: Users will not see any arrow buttons (iOS) or menu/buttons (Blackberry) if they do not have the privilege to access Performance Monitor.

**Call Flow Stats
Privilege**

The Call Flow Stats privilege (ContactCenterAdvisor.PerformanceMonitor.CallFlowPane.canView) determines who can view the Call Flow stats in the Performance Monitor.

Users with this privilege can view the Call Flow stats in the Performance Monitor.

Note: Users will see the Call Flow stats pane, but no data will be displayed if they do not have the privilege to access Call Flow Stats.

The behavior prompted by this flag is the same for both CCAdv and CCAdv-ME.

**Current Capacity
Stats Privilege**

The Current Capacity Stats privilege (ContactCenterAdvisor.PerformanceMonitor.CurrentCapacity.canView) determines who can view the Current Capacity stats in the Performance Monitor.

Users with this privilege can view the Current Capacity stats in the Performance Monitor.

Note: Users will see the Current Capacity stats pane, but no data will be displayed if they do not have the privilege to access Call Flow Stats.

The behavior prompted by this flag is the same for both CCAdv and CCAdv-ME.

Functionality Privileges

Functionality privileges determine what tasks the user can perform or what functions a user can execute on objects to which he/she has access.

Privileges are configured by using roles. If a privilege is present in a role, then any users assigned that role have access to the functionality controlled by that privilege. The value for the privilege key can be anything, or can be left blank.

Privileges for each role are stored as key-value pairs in the Annex tab of that role in Genesys Configuration Manager.

For more information about the CCAdv functional privileges, see the section, “Privileges in Advisors” and “List of Advisor Privileges”, Chapter 1, in the *Contact Center Advisor & Workforce Advisor Administrator User’s Guide*.



Part

1

Creating the Databases

[Part 1](#) of this document describes the generic creation of both a Microsoft SQL Server database and an Oracle database. These two creation processes will be repeated with specific variations for each Advisors component being deployed.

This information appears in the following chapters:

- [Creating a SQL Server Database, page 77](#)
- [Creating an Oracle 11g Database, page 93](#)
- [Oracle 11g: Configuring Metrics Data Sources, page 101](#)
- [Database Secure Deployment, page 109](#)



Chapter

2

Creating a SQL Server Database

This chapter describes how to create a SQL Server database. It contains the following section:

- [Creating a SQL Server Database, page 77](#)
- [Database Migration Scripts, page 90](#)

Creating a SQL Server Database

Procedure: Creating the database

Note: If due to security restrictions administrator or security administrator access cannot be granted, the local DBA should implement the steps described in this section.

Start of procedure

1. Connect to the SQL Server 2005 instance using Microsoft SQL Server Management Studio with the LoginID assigned to the SQL Server sysadmin server role. It can be sa or any other login assigned to the sysadmin server role and created for you for temporary use during the deployment.
2. In the object explorer right-click on Databases and choose New Database. Open the General screen (Figure 12 on [page 78](#)).

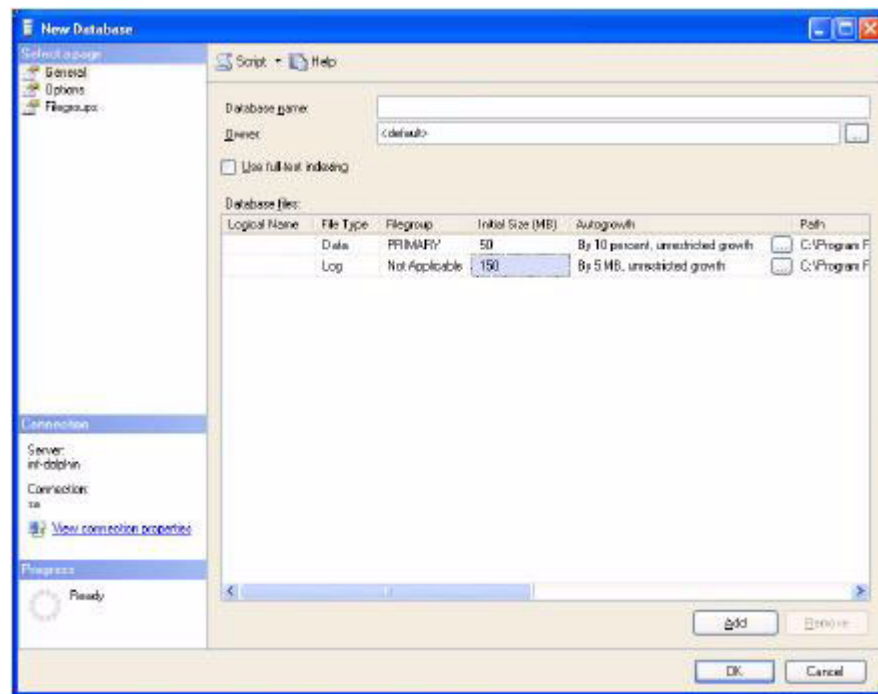


Figure 12: Database Properties—General

- a. Specify the database name. See Table 4 for details.
- b. Leave the owner as <default>.
- c. Specify 50 Mb as the initial data file size with Autogrowth set to By 10%, unrestricted file growth.
- d. Specify 150 Mb as the initial log file size with Autogrowth set to By 5MB, unrestricted file growth.
- e. Change the pathnames to the data and log files if necessary.

Table 4: SQL Database Recommended Names

Advisors Component	Recommended Database Name	Notes
Platform	advisors_platformdb	Required for Advisors implementations.
CCAdv/WA		Required for the CCAdv/WA modules. Uses the Platform and Metric Graphing databases.
Metric Graphing	advisors_mgdb	Metric Graphing database. Required for running CCAdv/WA Dashboards and XML Generator.

Table 4: SQL Database Recommended Names (Continued)

Advisors Component	Recommended Database Name	Notes
FA/AA	advisors_fadb	Required for the FA/AA modules.
Genesys Adapter	advisors_genadptdb	<p>Required for Genesys Adapter.</p> <p>Note: Genesys recommends that you create separate Genesys Adapter databases for CCAdv and FA.</p> <p>You do not require this database beginning in Release 8.1.5. Data maintained in this database in earlier releases moves to Advisors Platform and Genesys Configuration Server in Release 8.1.5. For more information, see “Data Manager” on page 50 and “Using the Object Migration Wizard to migrate AGA Configuration” on page 405.</p>
	advisors_gametricsdb	<p>Used by AGA to transfer Genesys configuration and statistics values to XML Generator. Only required for CCAdv/WA and WA server installations.</p> <p>There are no migration scripts supplied for the metrics database for Release 8.1.5; you must recreate the AGA metrics databases. See “Recreating the AGA metrics schema for Release 8.1.5” on page 158.</p>
Cisco Adapter	cisco_adapterdb	Required for Cisco Adapter.

3. Open the Options screen. See Figure 13 on [page 80](#).

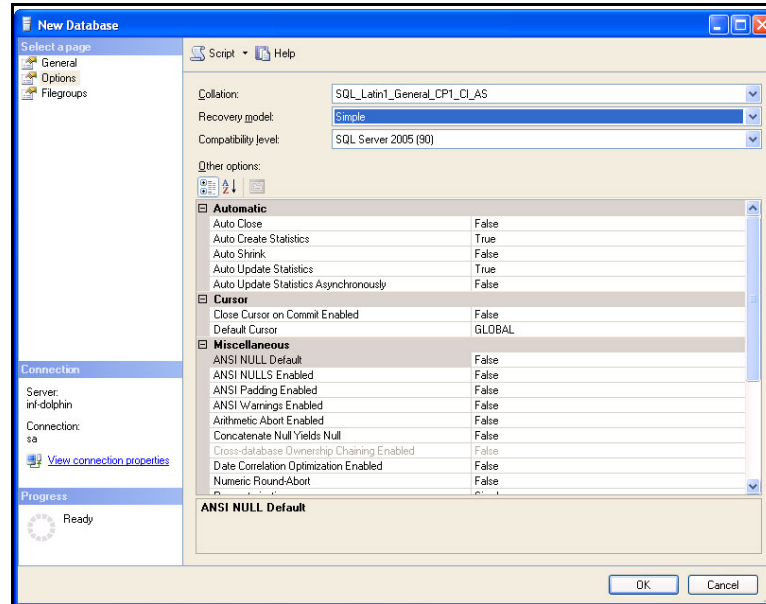


Figure 13: Database Properties, Options

- a. In the **Collation** field, select `SQL_Latin1_General_CP1_CI_AS`.
- b. In the **Recovery model** field, select `Simple`.
- c. Set **Auto Create Statistics** and **Auto Update Statistics** to the value `true`.
4. Click **OK**.
5. If you want to use a separate schema as a container for the database objects related to the Advisors applications, implement steps 6 and 7. Otherwise proceed to “Creating a login to be used by the database” on [page 81](#).
6. In the **Object Explorer**, expand **Databases**, `<dbname_db>`, **Security**, and **Schemas**.

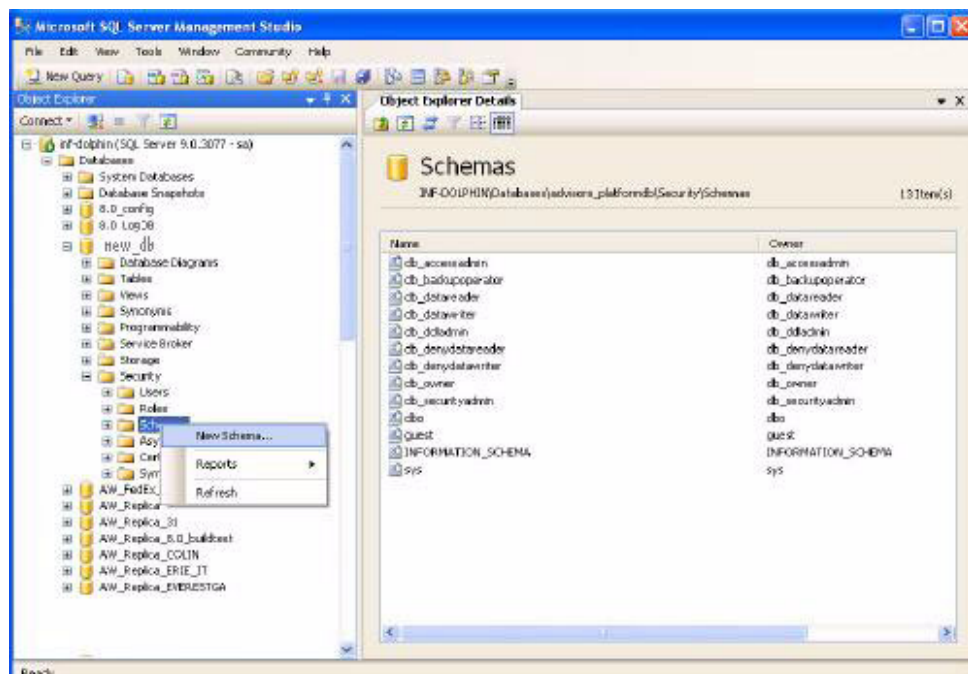


Figure 14: Database Security—Schemas

7. Right-click on Schemas, choose New Schema, then specify the schema name. You can choose any schema name that corresponds to your company and SQL Server naming conventions; for example, callcenter01.
8. Click OK. The database is created and properties are configured.

End of procedure

Procedure: Creating a login to be used by the database

Note: If due to security restrictions administrator or security administrator access cannot be granted, have the customer's DBA implement the steps described in this section.

Start of procedure

1. In the Microsoft SQL Server Management Studio object explorer, select **Server** and then **Security**.

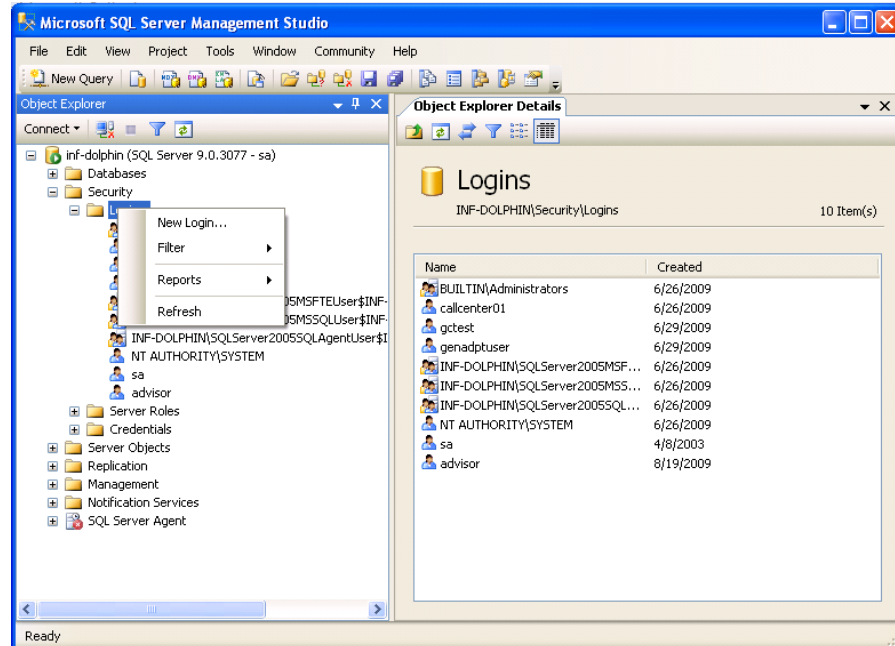


Figure 15: Server-Level Security

2. Right-click Logins and choose **New Login**.
 - a. Specify the login name (in this example, `callcenter01`).
 - b. Click **SQL Server Authentication**.
 - c. Specify a password that complies with the organization's security policy.
 - d. If strong passwords are part of the security policy, check the **Enforce password policy** check box.
3. Open the **Login Properties - User Mapping** screen (Figure 16).

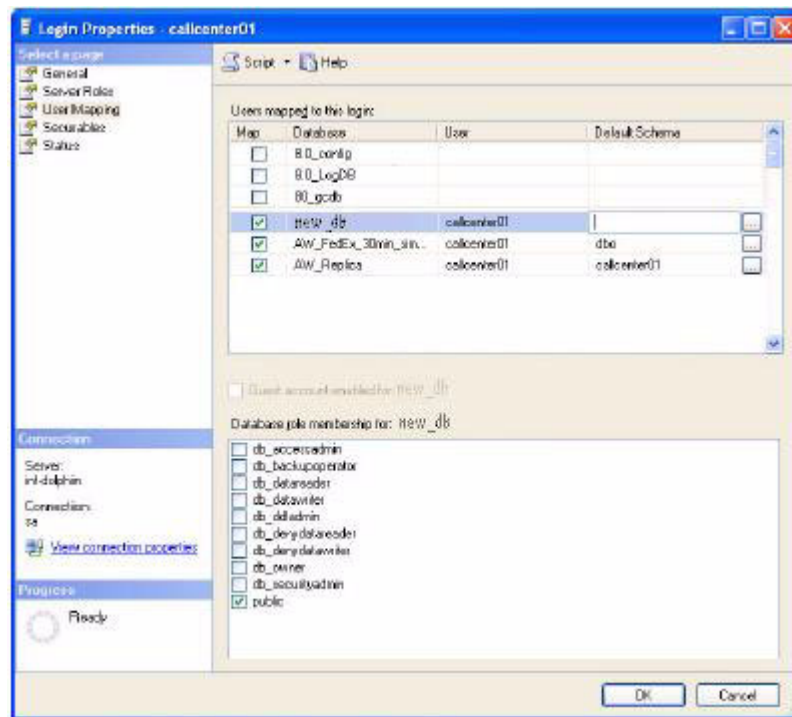


Figure 16: Login Properties—User Mapping

- a. Map the user (callcenter01 in this example) to the newly created database by checking the appropriate check box.
- b. Choose dbo as a default schema if you skipped steps 5 and 6 in the procedure “Creating the database” on [page 77](#). Otherwise select the name of the created schema.

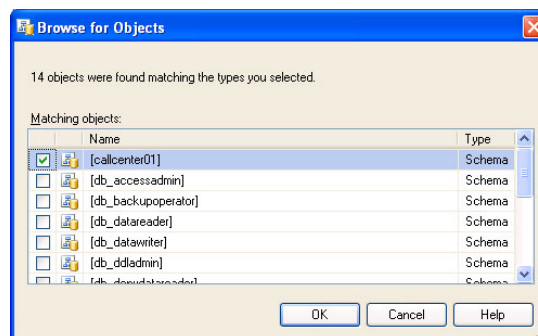


Figure 17: Browse for Objects

- c. Click OK, then confirm your selection by highlighting it and clicking OK again in the Select Schema dialog. This returns you to the User Mapping screen.
- d. Add the user to one or more database roles by checking the relevant check box in the lower panel of [Figure 16](#). Select either:

- The db_owner database role
- All three of the db_datareader, db_datawriter, and db_ddladmin roles

Note: If you choose db_datareader, db_datawriter, db_ddladmin option, ensure that, after you create all of the database objects, you then complete the step described in “Assigning Additional User Permissions” on [page 90](#).

The login to be used by database is now created and configured.

End of procedure

Procedure: Creating linked servers for the database

Note: If, due to security restrictions, administrator or security administrator access cannot be granted, the local DBA should implement the steps described in this section.

Prerequisites

Before you start the procedure, identify the data sources that must be accessed. If the customer uses a Cisco environment, then a linked server is necessary per each MSSQL Server used by CCAdv/WA CISCO ICM databases. Before each linked server is configured, the CISCO ICM database administrator must create a login on each such MSSQL Server and a corresponding AWDB user linked to it. The user must have read permission on the following AWDB views and a table:

- Agent_Skill_Group_Real_Time
- Call_Type
- Call_Type_Real_Time
- Logical_Interface_Controller
- Peripheral
- Peripheral_Real_Time
- Service
- Service_Real_Time
- Skill_Group
- Skill_Group_Real_Time
- Service_Member

- Controller_Time table

Note: Linked server is normally not required to access Genesys Adapter metrics database except some uncommon cases when Genesys Adapter metrics database and platform database reside on separate MSSQL Servers. However, each view in the Genesys Adapter metrics database must be accessible by the user defined in the Advisors Platform database. The platform user must be granted access to Genesys Adapter metrics database views that have the same names as the preceding list of CISCO ICM views. Genesys Adapter metrics database contains two additional views: Virtual_Queue_Set1_Real_Time and Controller_Time. Both views must be accessible by the Platform user.

The user can be given the above object-level permissions or assigned to an equivalent user-defined database role. If it is allowed by the customer security policy, the user can be assigned to any database standard role that includes the above minimum permissions. As an example the user can be assigned to the standard db_datareader role.

Start of procedure

1. In the Microsoft SQL Server Management Studio object explorer, click Server Objects.

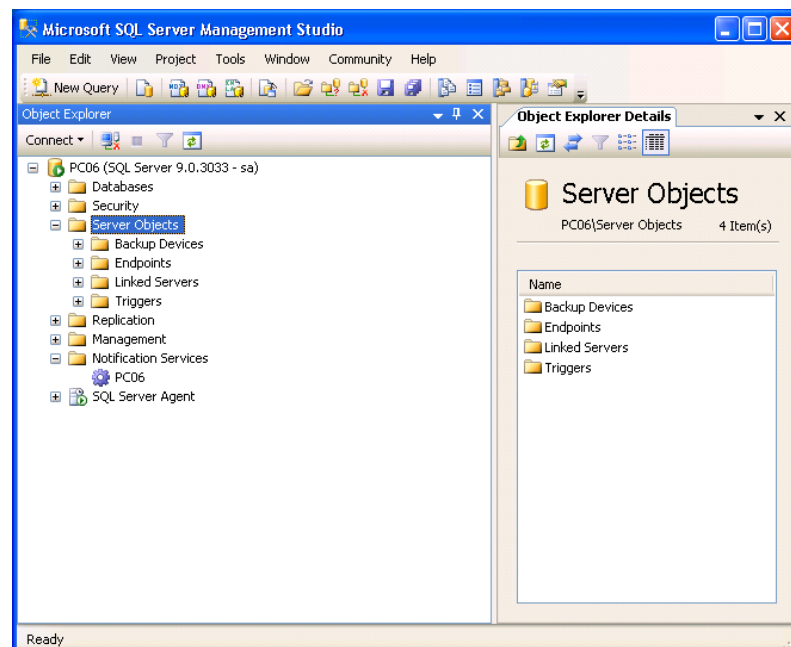


Figure 18: Server Objects

2. Right-click on Linked Servers and choose New Linked Server...The New Linked Servers screen displays (Figure 19 on [page 86](#)).

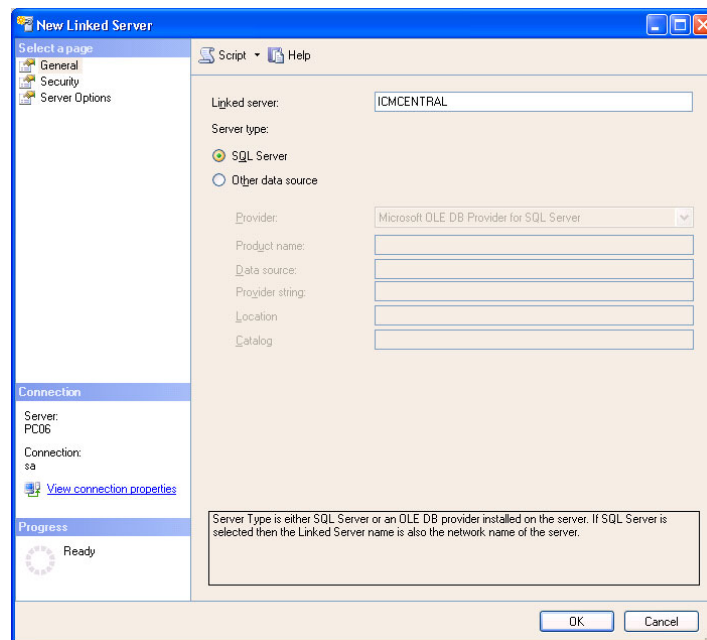


Figure 19: New Linked Server Screen

3. For the Server type, select SQL Server.
4. Specify the name of the external SQL database server to be accessed. Click OK. The New Linked Server—Security Screen displays.

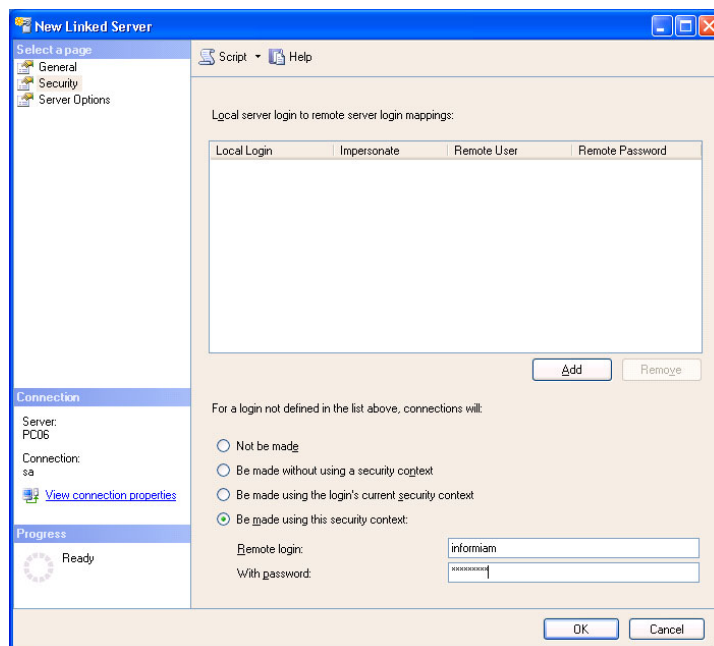


Figure 20: New Linked Server—Security Screen

5. On the Security screen:
 - a. Select Be made using this security context.
 - b. Specify the remote login and password created by the external administrator for access to the external database

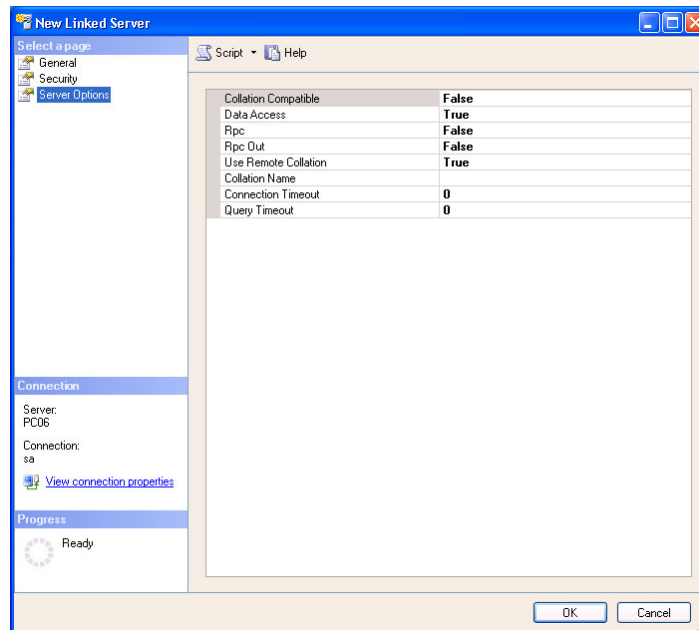


Figure 21: New Linked Server—Server Options

6. On the Server Options screen:
 - a. Check the Data Access check box and User Remote Collation check box.
 - b. Click OK.
7. To test the linked server connectivity run some SQL statements from the Microsoft SQL Server Management Studio.

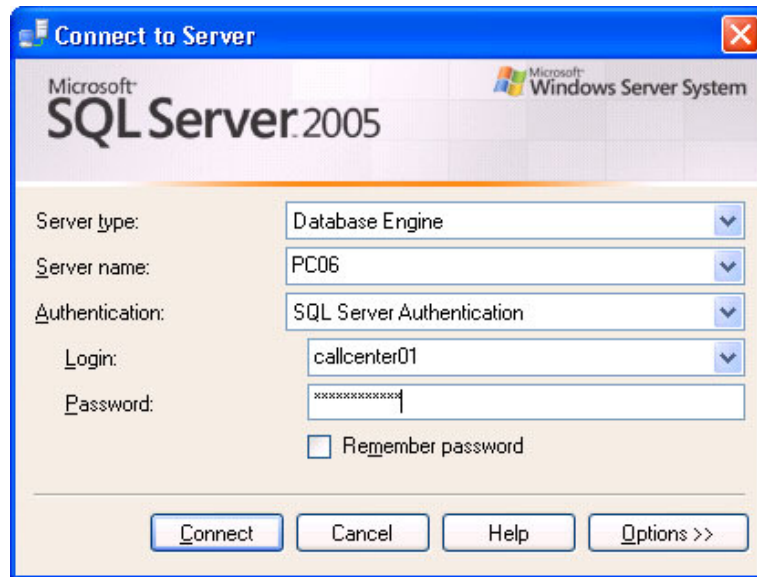


Figure 22: Connecting to Database Engine

8. Enter the correct connection details and click Connect. The New Query screen displays (Figure 20 on [page 86](#)).
9. Click New Query
10. Type a query using the following notation:
 - Select <...> from <Linked Server Name>.<Remote Database Name>.<Remote Database Owner>.<Remote Table Name>
 Or:
 - Select <...> from openquery(<Linked Server Name>, 'select <...> from >.<Remote Database Name>.<Remote Database Owner>.<Remote Table Name> [with (<locking hint>)]

Example–Cisco

Select * from ICM_AWDB1.company_awdb.dbo.Controller_Time

Or:

```
Select * from OpenQuery([ICM_AWDB1], 'select * from
company_awdb.dbo.Controller_Time
(noLock)')
```

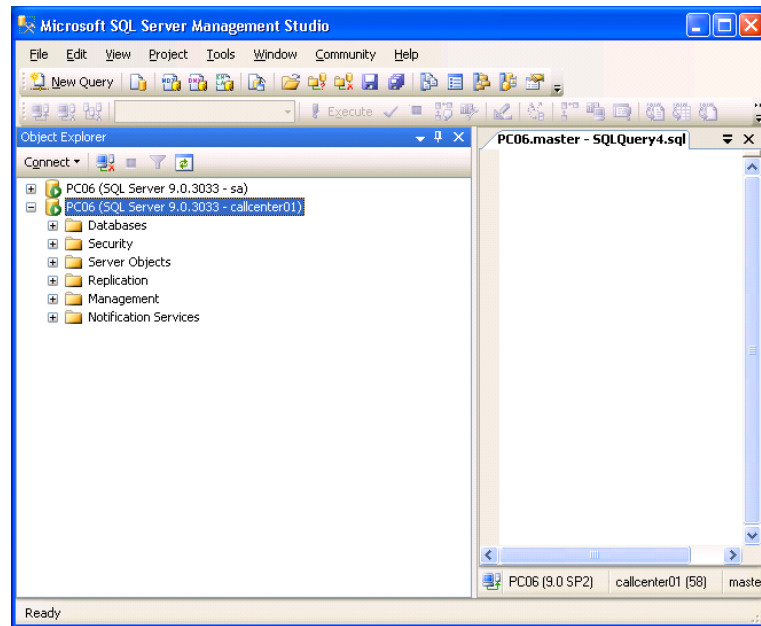



Figure 23: Microsoft SQL Management Studio—New Query

11. For each external data source, repeat this procedure.

End of procedure

Procedure: Creating objects in the database

Prerequisites

This step must be run either with the system administrator account or with a user having `db_owner` permissions to the database. In addition, the user must have the same default schema as that assigned to the Advisors user (created in the [“Creating a login to be used by the database”](#) section).

The `db_owner` role can be given temporarily to the Advisors user for the purpose of running these steps.

Start of procedure

1. From Microsoft SQL Server Management Studio, click **File**. Connect to the database engine as a user meeting the criteria above.
2. Make sure that you choose the correct database from the list of available databases.

3. From the `../sql_files` folder in the distribution folder, run the SQL script `[databasename]-new-database-<version>.sql` against the newly created database. This script creates the database user objects and populates some tables with default configuration data.
4. Scroll down the query results tab and check for errors. Ignore warnings. The objects are created.

End of procedure

Assigning Additional User Permissions

Assigning additional user permissions is necessary if the created database user is assigned to `db_datareader`, `db_datawriter` and `ddl_admin` roles but is not assigned to the `db_owner` role.

The user assigned to `db_datareader`, `db_datawriter` and `ddl_admin` roles must be granted execute permissions only on all user stored procedures that exist in the database after the objects are created.

You can use the SQL Server interface to assign the permissions or create a grant permissions script and execute it against the newly created database. The following statement when executed against the newly created database will produce a set of grant permission statements.

To run the script press CTRL/T, then CTRL/E.

Copy the result from the result pane. That is, click on the **Result** pane, then click CTRL/A then CTRL/C. Paste the content (CTRL/V) into the query pane and execute the following:

```
select 'grant execute on
['+ routine_catalog+'].['+routine_schema+'].['+routine_name+'] to
<database user>' from INFORMATION_SCHEMA.ROUTINES where
ROUTINE_TYPE='PROCEDURE'
```

Note: Before executing the script, please change `<database user>` to the ID for your database user.

Database Migration Scripts

Platform database deployment/migration in MSSQL is performed by executing the `platform-new-database-<version>.sql` script supplied in the distribution for releases up to, and including, Release 8.1.4. Starting in Release 8.1.5, the script is labeled `advisors-platform-new-database-<version>.sql`. The same script can be applied to a new empty database or a database of any previous version. Always check Release Notes for exceptions to this rule.

Migration for other databases is performed by executing migration scripts supplied in the distribution.

These follow this pattern:

```
<database-name>-migration-<old-version>-to-<new-version>.sql
```

The example below is for the FA database:

```
fa-database-migration-3.1-to-3.3.sql  
fa-database-migration-3.3-to-8.0.sql  
fa-database-migration-8.0-to-8.1.sql  
fa-database-migration-8.1-to-8.1.1.sql  
fa-database-migration-8.1.1-to-8.1.2.sql  
fa-database-migration-8.1.2-to-8.1.3.sql  
fa-database-migration-8.1.3-to-8.1.4.sql  
fa-database-migration-8.1.4-to-8.1.5.sql
```

To migrate a database across more than one update, run the scripts in sequence from earliest to latest.

**Release 8.1.5
Metrics Databases**

There are no migration scripts supplied for the metrics database for Release 8.1.5. You must recreate the AGA metrics databases for Release 8.1.5. For more information, see the AGA entry in Table 1, “Distribution Artifacts,” on [page 30](#). For information about recreating the AGA metrics database if you are migrating to Release 8.1.5, see “Recreating the AGA metrics schema for Release 8.1.5” on [page 158](#).



Chapter

3

Creating an Oracle 11g Database

This chapter describes how to create a generic Oracle 11g database. Each individual Oracle database in an Advisors implementation has its own creation script in the 8.1 release.

This chapter contains the following section:

- [Creating an Oracle Database, page 93](#)

Creating an Oracle Database

You must perform all the steps below on a machine where you have Oracle client installed. The installation scripts require SQLPlus which is installed as part of Oracle client installation.

Please verify that you have your `ORACLE_HOME` environment variable and `tnsnames.ora` content set properly. Verify the connectivity to the instance by running the following command line:

```
tnsping <alias to the oracle instance contained in the local  
tnsnames.ora file>.
```

Note: It is important to use <alias to the oracle instance contained in the local `tnsnames.ora` file> as a response on all prompts where the database scripts ask you to <Enter the database instance alias>.

Example:

Your `tnsnames.ora` contains the following entry:

```
wolf =
```

```

      (DESCRIPTION =
        (ADDRESS = (PROTOCOL = TCP)(HOST = inf-wolf.qalab.com)(PORT =
1521))
        (CONNECT_DATA =
          (SERVER = DEDICATED)
          (SERVICE_NAME = orcl.qalab.com)
        )
      )
    )

```

To check the connectivity type:

```
C:>tnsping wolf
```

The successful message will look as follows:

Used TNSNAMES adapter to resolve the alias

```

Attempting to contact (DESCRIPTION = (ADDRESS = (PROTOCOL = TCP)(HOST =
inf-wolf.qalab.com)(PORT = 1521)) (CONNECT_DATA = (SERVER = DEDICATED)
(SERVICE_NAME = orcl.qalab.com)))

```

```
OK (0 msec)
```

Use [Table 5](#) as a guide when naming databases.

Table 5: Database Recommended Names

Advisors Component	Recommended Database Name	Notes
Platform	advisors_platformdb	Required for Advisors implementations.
CCAdv/WA		Required for the CCAdv/WA modules. Uses the Platform database.
Metric Graphing	advisors_mgdb	Required for running Dashboards and XML Gen.
FA/AA	advisors_fadb	Required for the FA/AA modules.

Table 5: Database Recommended Names (Continued)

Advisors Component	Recommended Database Name	Notes
Genesys Adapter	advisors_genadptdb	<p>Required for Genesys Adapter.</p> <p>Note: Genesys recommends that you create separate Genesys Adapter databases for CCAdv and FA.</p> <p>You do not require this database beginning in Release 8.1.5. Data maintained in this database in earlier releases moves to Advisors Platform and Genesys Configuration Server in Release 8.1.5. For more information, see “Data Manager” on page 50 and “Using the Object Migration Wizard to migrate AGA Configuration” on page 405.</p>
	advisors_gametricsdb	<p>Used by AGA to transfer Genesys configuration and statistics values to XML Generator. Only required for CCAdv/WA installations.</p> <p>There are no migration scripts supplied for the metrics database for Release 8.1.5; you must recreate the AGA metrics databases. See “Recreating the AGA metrics schema for Release 8.1.5” on page 158.</p>
Cisco Adapter	cisco_adapterdb	Required for Cisco Adapter.

Note: In 8.1.x releases, all Oracle scripts are creation scripts except those that contain the word `migrate` in the name. Any existing schema with the same name must be dropped prior to running the scripts.

In Release 8.1.1 and later, use the migration scripts when upgrading your software version.

Procedure: Creating an Oracle 11g database

Note: If due to security restrictions administrator or security administrator access cannot be granted, the local DBA should implement the steps described in this section.

Purpose: This procedure applies to an Oracle user who has permissions to create tablespaces, users, and to grant permissions. Follow your enterprise's policies in production environments. If necessary, have the DBA create tablespaces, users, and grant permissions. Use scripts relevant to your environment after the DBA completes the work. Refer to the script content description contained in "Software Distribution Contents" on [page 30](#).

Start of procedure

1. Copy all of your Oracle database scripts to a folder on the machine where you have the Oracle client installed. The path name for this location must not contain spaces.
2. On the machine where the Oracle client is installed, open a command prompt and change directory to the folder where the database scripts now reside.
3. Review the readme files located in the script directories.
4. Start SQLPlus by entering `sqlplus /nolog` at the command prompt. You should see the prompt change to `SQL>`.

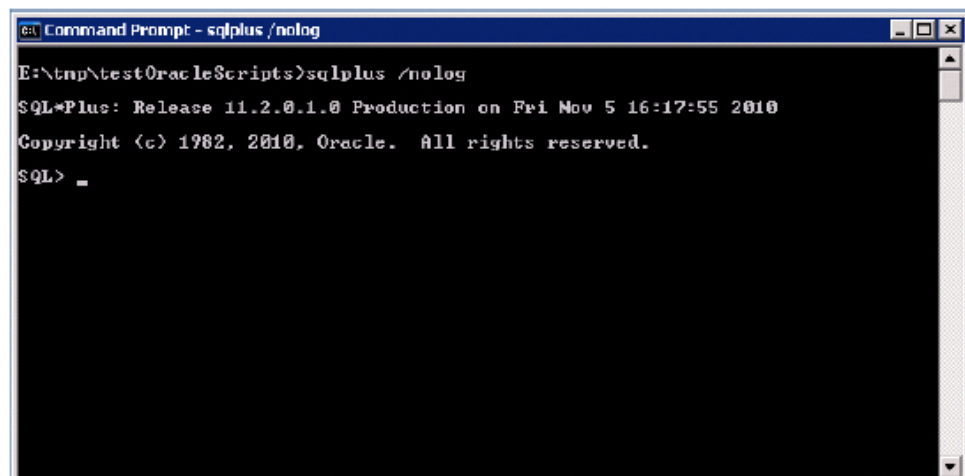
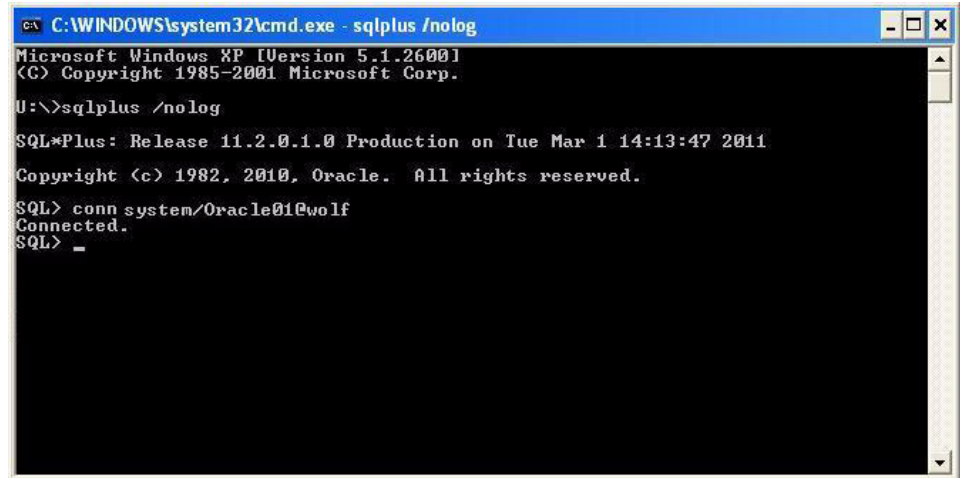


Figure 24: SQL Command Prompt

5. Using a user account that has DBA privileges (for example, SYSTEM), connect to the Oracle instance by entering:
`conn {User}/{Password}@<alias to the Oracle instance contained in the local your tnsnames.ora file>`
at the prompt.



```
C:\WINDOWS\system32\cmd.exe - sqlplus /nolog
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

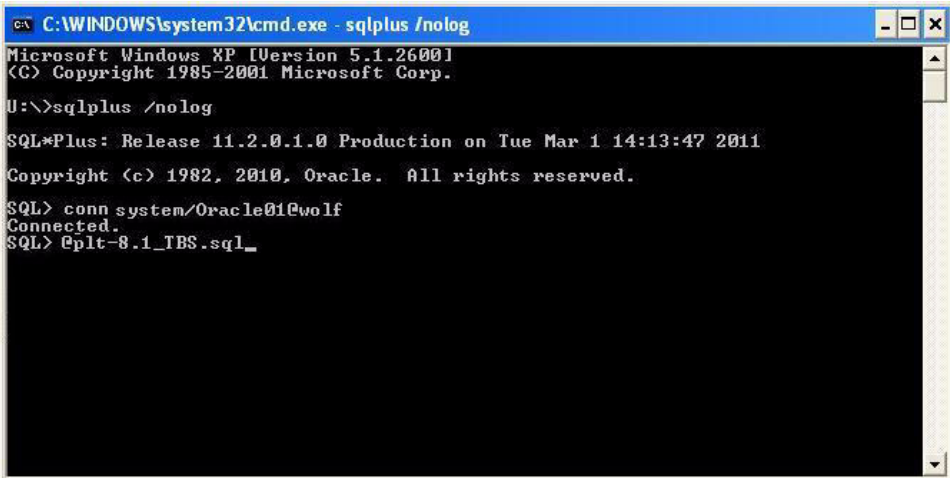
U:\>sqlplus /nolog

SQL*Plus: Release 11.2.0.1.0 Production on Tue Mar 1 14:13:47 2011
Copyright (c) 1982, 2010, Oracle. All rights reserved.

SQL> conn system/Oracle01@wolf
Connected.
SQL> _
```

Figure 25: SQL Command Prompt 2

6. (Optional: perform Steps 8 through 10 only if the required tablespaces do not yet exist.
If table spaces are already present, skip to Step 11.)
If table spaces are not present, run the tablespace script by entering
`@<script name>`
at the prompt (where “<script name>” is the name of your tablespace script—`@plt-8.1-TBS.sql` in the example in [Figure 26](#)).



```

C:\WINDOWS\system32\cmd.exe - sqlplus /nolog
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

U:\>sqlplus /nolog

SQL*Plus: Release 11.2.0.1.0 Production on Tue Mar 1 14:13:47 2011
Copyright (c) 1982, 2010, Oracle. All rights reserved.

SQL> conn system/Oracle01@wolf
Connected.
SQL> @plt-8.1_TBS.sql_

```

Figure 26: SQL Command Prompt 3

Note: See Table 1, “Distribution Artifacts,” on [page 30](#) for details of script names supplied in the distribution.

7. When prompted, enter the full path to your base data file directory (from Step 2), including the trailing slash.

The script will either:

- Create the tablespaces if they do not yet exist, or;
- Skip the creation if the tablespaces are already present.

Note that the script will preserve your SQLPlus connection, which you will reuse later in this procedure.



```

Command Prompt - sqlplus /nolog

Connected.
SQL> @plt-8.1_TBS.sql
Enter a file path to the base data file directory.
For Example /u02/app/oracle/oradata/orade/<!!!Note trailing slash>.
Before you proceed make sure that the following
directory is already present under the base file directory:
platform, ccaua, genadapt.

Base data file directory path? E:\TestOracleTablespace\oradata\

```

Figure 27: SQL Command Prompt 4

8. Verify the results of your script execution:
 - a. Using a separate command prompt / terminal session, examine the `runTbsCre.log` file. You can find this log file in the same directory as your installation scripts.
 - b. Browse your data file location to ensure that the files were created. Alternately, you can run the following query from any Oracle client connected as the system user:

```
SELECT * FROM dba_data_files
```

9. To create the database schema and objects, and to load initial data, connect as a user with database administrator privileges (such as, `SYSTEM`), and run the schema script by entering
`@plt-<version>_Schema.sql`
at the prompt.

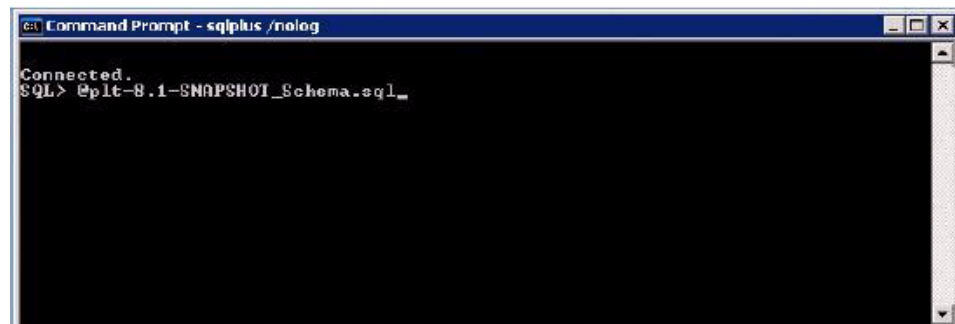


Figure 28: SQL Command Prompt 5

Note: See Table 1, “Distribution Artifacts,” on [page 30](#) for details of script names supplied in the distribution.

10. When prompted, enter your schema name for the database objects. (The screens following use the example `AdvPlatform`.)



Figure 29: SQL Command Prompt 6

11. When prompted, enter the schema password.

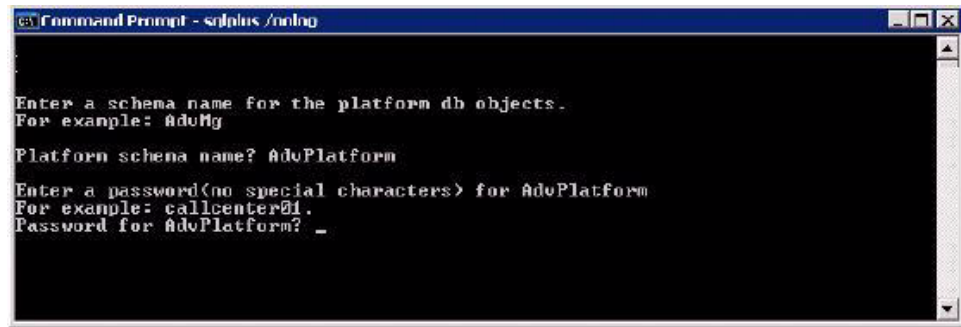


Figure 30: SQL Command Prompt 7

12. On SID prompt enter the alias to the Oracle instance contained in the local tnsnames.ora.

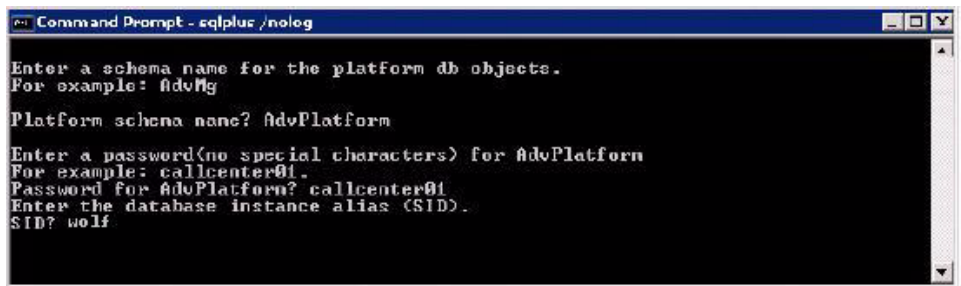


Figure 31: SQL Command Prompt 8

13. Once the script completes and SQLPlus exits, verify the results by examining the runUserCre.log file, located in the same directory as your installation scripts.

End of procedure



Chapter

4

Oracle 11g: Configuring Metrics Data Sources

This chapter describes how to configure connectivity to data sources. This chapter contains the following sections:

- [Connectivity to AGA Metrics Schema when it is on the Same Oracle Instance as the Platform Schema, page 101](#)
- [Connectivity to AGA Metrics Schema when it is on a Different Oracle Instance than the Platform Schema, page 104](#)
- [Connectivity to Cisco ICM Data Source from Platform Database on Oracle Instance, page 105](#)

Connectivity to AGA Metrics Schema when it is on the Same Oracle Instance as the Platform Schema

This section describes how to configure connectivity to AGA metrics where the AGA data source is on the same Oracle instance as the Platform schema.

Procedure: Configuring Connectivity to AGA Metrics Schema when on the Same Oracle instance as the Platform Schema

Start of procedure

1. Either:

- Connect as a privileged user (such as system) and grant the following select permissions to the platform user:

```
GRANT SELECT ON <aga metrics schema>.AGENT_SKILL_GROUP_REAL_TIME  
TO <platform user>;  
GRANT SELECT ON <aga metrics schema>.CALL_TYPE TO <platform  
user>;  
GRANT SELECT ON <aga metrics schema>.CALL_TYPE_REAL_TIME TO  
<platform user>;  
GRANT SELECT ON <aga metrics schema>.CONTROLLER_TIME TO  
<platform user>;  
GRANT SELECT ON <aga metrics schema>.INTERACTION_QUEUE TO  
<platform user>;  
GRANT SELECT ON <aga metrics schema>.INTERACTION_QUEUE_REAL_TIME  
TO <platform user>;  
GRANT SELECT ON <aga metrics  
schema>.LOGICAL_INTERFACE_CONTROLLER TO <platform user>;  
GRANT SELECT ON <aga metrics schema>.PERIPHERAL TO <platform  
user>;  
GRANT SELECT ON <aga metrics schema>.PERIPHERAL_REAL_TIME TO  
<platform user>;  
GRANT SELECT ON <aga metrics schema>.SERVICE TO <platform user>;  
GRANT SELECT ON <aga metrics schema>.SERVICE_MEMBER TO <platform  
user>;  
GRANT SELECT ON <aga metrics schema>.SERVICE_REAL_TIME TO  
<platform user>;  
GRANT SELECT ON <aga metrics schema>.SKILL_GROUP TO <platform  
user>;  
GRANT SELECT ON <aga metrics schema>.SKILL_GROUP_REAL_TIME TO  
<platform user>;  
GRANT SELECT ON <aga metrics  
schema>.VIRTUAL_QUEUE_SET1_REAL_TIME TO <platform user>;
```

Or;

- Connect to the AGA metrics schema as its owner and execute the following statements:

```
GRANT SELECT ON AGENT_SKILL_GROUP_REAL_TIME TO <platform user>;
GRANT SELECT ON CALL_TYPE TO <platform user>;
GRANT SELECT ON CALL_TYPE_REAL_TIME TO <platform user>;
GRANT SELECT ON CONTROLLER_TIME TO <platform user>;
GRANT SELECT ON INTERACTION_QUEUE TO <platform user>;
GRANT SELECT ON INTERACTION_QUEUE_REAL_TIME TO <platform user>;
GRANT SELECT ON LOGICAL_INTERFACE_CONTROLLER TO <platform user>;
GRANT SELECT ON PERIPHERAL TO <platform user>;
GRANT SELECT ON PERIPHERAL_REAL_TIME TO <platform user>;
GRANT SELECT ON SERVICE TO <platform user>;
GRANT SELECT ON SERVICE_MEMBER TO <platform user>;
GRANT SELECT ON SERVICE_REAL_TIME TO <platform user>;
GRANT SELECT ON SKILL_GROUP TO <platform user>;
GRANT SELECT ON SKILL_GROUP_REAL_TIME TO <platform user>;
GRANT SELECT ON VIRTUAL_QUEUE_SET1_REAL_TIME TO <platform user>;
```

2. Test the connectivity by verifying that the following select statements return 0 or more rows if executed by Platform user:

```
SELECT * FROM <aga metrics schema>.AGENT_SKILL_GROUP_REAL_TIME;
SELECT * FROM <aga metrics schema>.CALL_TYPE;
SELECT * FROM <aga metrics schema>.CALL_TYPE_REAL_TIME;
SELECT * FROM <aga metrics schema>.CONTROLLER_TIME;
SELECT * FROM <aga metrics schema>.INTERACTION_QUEUE;
SELECT * FROM <aga metrics schema>.INTERACTION_QUEUE_REAL_TIME;
SELECT * FROM <aga metrics schema>.LOGICAL_INTERFACE_CONTROLLER;
SELECT * FROM <aga metrics schema>.PERIPHERAL;
SELECT * FROM <aga metrics schema>.PERIPHERAL_REAL_TIME;
SELECT * FROM <aga metrics schema>.SERVICE;
SELECT * FROM <aga metrics schema>.SERVICE_MEMBER;
SELECT * FROM <aga metrics schema>.SERVICE_REAL_TIME;
SELECT * FROM <aga metrics schema>.SKILL_GROUP;
SELECT * FROM <aga metrics schema>.SKILL_GROUP_REAL_TIME;
SELECT * FROM <aga metrics schema>.VIRTUAL_QUEUE_SET1_REAL_TIME;
```

End of procedure

Connectivity to AGA Metrics Schema when it is on a Different Oracle Instance than the Platform Schema

This section describes how to configure connectivity to the AGA metrics data source when it is installed on a different Oracle instance than the Platform schema.

Prerequisites

- The `tnsnames.ora` file, located on the Oracle instance where the Platform schema resides, must contain a SID entry for the Oracle instance where the AGA metrics schema is located.

Example:

```
atlanta12 =
  (DESCRIPTION =
    (ADDRESS = (PROTOCOL = TCP)(HOST = p3458atl12
.us.prod.company.com)(PORT = 1521))
    (CONNECT_DATA =
      (SERVER = DEDICATED)
      (SERVICE_NAME = orcl12.us.prod.company.com)))
```

- To ensure a database link can be created, the user who will perform this operation must be granted the following permission:

```
GRANT CREATE DATABASE LINK TO <platform user>
```

You can locate your `tnsnames.ora` file in the `$ORACLE_HOME/network/admin` directory.

Procedure: Configuring Connectivity to AGA Metrics Schema when it is on a Different Oracle Instance than the Platform Schema

Start of procedure

1. Create a database link inside the Platform schema or a public database link. For example;

```
CREATE DATABASE LINK atl12.gcldb81 CONNECT TO
    "<aga metrics schema>" IDENTIFIED BY "<aga metrics
schema owner pwd>" USING 'atlanta12';
```


2. Test the links from SqlDeveloper or run a select statement as Platform user. For example;

```
SELECT * FROM Controller_Time@atl12.gcldb81;
```

End of procedure

Connectivity to Cisco ICM Data Source from Platform Database on Oracle Instance

This section describes how to configure connectivity to the Cisco ICM data source (ICM AWDB) when the Platform database is installed on an Oracle instance.

Prerequisites

- Identify all ICM AWDBs that must be accessed by CCAdv and WA, as well as the SQL Servers that host those databases.
- Ensure that SQL Server accounts exist on all SQL Servers that host the ICM AWDBs accessed by CCAdv and WA.
- Ensure that each MSSQL Server account (see preceding bullet) has the MSSQL master database as a default database.
- Ensure that each ICM AWDB that must be accessed by CCAdv and WA has a user mapped to the relevant SQL Server account (see preceding bullets). The minimum requirement is that this user has permissions to select the data from:

CISCO source AWDB views

Agent_Skill_Group_Real_Time
Call_Type
Call_Type_Real_Time
Logical_Interface_Controller
Peripheral
Peripheral_Real_Time
Service
Service_Real_Time
Skill_Group
Skill_Group_Real_Time
Service_Member
and
AWDB Controller_Time table.

- Ensure the user has the preceding object-level permissions or this user is assigned to an equivalent user-defined database role. If it is allowed by your organization's security policy, the user can be assigned to any database standard role that includes the above minimum permissions. As an example, the user can be assigned to the standard db_datareader role.
- Ensure the Oracle Database Gateway for SQL Server is installed.
- Ensure the Gateway Initialization parameter file(s) exists for each Cisco ICM data source used by CCAdv and WA.
- Ensure the Oracle Net Listener configuration file has an entry for every gateway instance that exists for Cisco ICM data sources.
- Ensure the Oracle database that hosts the Platform schema is configured for Gateway Access and its tnsnames.ora configuration file contains a separate entry for each gateway instance. The alias from each such entry is used as database link creation parameters.

For detailed information about SQL Server security configuration, see the online documentation for Microsoft SQL Server at <http://msdn.microsoft.com>.

For detailed information about Oracle Database Gateway for SQL Server installation and configuration, see http://docs.oracle.com/cd/E18283_01/gateways.112/e12061/sqlserver.htm.

Procedure:

Configuring Connectivity to Cisco ICM from an Oracle Instance

Start of procedure

1. Create – or have your DBA create – a separate database link for each ICM source using a corresponding gateway instance. The links can be created inside the Platform schema or they can be created as public database links.

Create database links using the following pattern:

```
CREATE [PUBLIC] DATABASE LINK <arbitrary mssql database link name>  
CONNECT TO
```

```
"<MSSQL username created for you in ICM awdb>" IDENTIFIED BY "<MSSQL  
password created for you in ICM awdb>" USING '<gateway_sid>';
```

where gateway_sid is the entry of the corresponding gateway instance contained in the tnsnames.ora file.

For example;

```
CREATE PUBLIC DATABASE LINK "prod67543.icm1" CONNECT TO  
"user1" IDENTIFIED BY "password1" USING 'dg4msql2';
```

2. Test the links from SqlDeveloper or run a select statement against the whole set of views as Platform user. For example:

```
SELECT * FROM "Controller_Time"@prod67543.icm1;
```

End of procedure

The configuration of ICM data sources is now complete.

5

Database Secure Deployment

This chapter describes how to deploy Oracle and MS SQL securely. This chapter contains the following sections:

- [Secure Deployment for Oracle 11g, page 109](#)
- [Secure Deployment for MS SQL Server 2008, page 112](#)

Secure Deployment for Oracle 11g

Oracle 11g offers:

- Transparent Database Encryption (TDE) introduced in Oracle 10g which allows the encryption of individual column content on the data file level.
- Tablespace encryption introduced in Oracle 11g which allows the encryption of the entire content of a tablespace.

Note: To make sure databases are secured with TDE encryption, do the following:

1. Run the following query and all your tables should be using the ENCRYPTED_TS tablespace.:

```
select * from user_tables
```

2. Run the following query and check if the ENCRYPTED_TS table space shows Yes:

```
select tablespace_name, encrypted from user_tablespaces
```

The following specifics of Advisors database deployment must be considered if the above Oracle features are used.

**Platform, Metric
Graphing and
Genesys Adapter
Databases**

Initial Platform, Metric Graphing, and Genesys Adapter database scripts contain tablespace names in a form of variables in each create SQL statement for tables, primary keys, and indexes. The tables and indexes are distributed among several groupings based on Genesys' recommendations related to the data update patterns and its usage characteristics.

The Platform deployment script replaces the variables dynamically with the values provided by the user in the deployment script dialog. The deployment script generates a new `runObjCre.sql` script with the substituted variables. The deployment script executes `runObjCre.sql` and other SQL scripts in a certain order.

It is important to make a decision about what objects need encryption and what objects should go to what tablespace before the deployment script execution. If any customization is necessary (for instance change table/index grouping or encrypt the data on the column level), the user will need to implement the following steps:

1. Run the deployment script from SQL*plus to generate `runObjCre.sql`.
2. Drop the previously created user.
3. Customize the generated `runObjCre.sql`.
4. Save it and then execute the scripts in the following order:
 - a. Platform schema:


```
runUsrCre.sql
runObjCre.sql
version_ROUTINE.sql
version_INIT_DATA.sql
version_CUSTOM_ROUTINE.sql
exec spCompileInvalid();
```
 - b. Metrics Graphing schema:


```
runMgUsrCre.sql
runObjCre.sql
version_INIT_DATA.sql
version_ROUTINE.sql
exec spCompileInvalid();
```
 - c. Genesys Adapter configuration schema (not required in Release 8.1.5):


```
runAgaUsrCre.sql
runObjCre.sql
gc_cfg_new_version_ROUTINE.sql
exec spCompileInvalid();
```
 - d. Genesys Adapter Metrics schema:


```
runMetricsUsrCre.sql
runObjCre.sql
```

```
gc_metrics_new_version_ROUTINE.sql
exec spCompileInvalid();
```

Frontline Advisor Databases

The objects in all Frontline Advisor schemas are created in the default user tablespace specified during the user creation. Create statements do not contain a TABLESPACE clause and indexes are not separated from tables through tablespaces. If any object separation is necessary, the user will need to implement the following steps:

1. Frontline Advisor Schema:
 - a. Customize the `fa-new-database_version.sql`.
 - b. Save it and execute while connected as an FA user.
2. Cisco Adapter Schema:
 - a. Customize the `aca-new-database-version.sql`.
 - b. Save it and execute while connected as a CISCO FA user.

List of Function-Based Indexes

TDE limitations related to the column-based encryption of the content with function-based indexes are applicable to the Advisors Suite. The Advisors schema contains a number of function-based indexes that need to be modified or dropped if the column-based encryption of the related columns is chosen.

Platform Schema

Index: IX_APPLICATION_NAME

Table: APPLICATION—Contains application group metadata

Column expression: UPPER("NAME")

Index: IX_CALL_APP_UP

Table: CALL_APPLICATION—Contains metadata for queues, call types, services, interaction queues

Column expression: UPPER("NAME")

Index: IX_CALL_CENTER_NAME

Table: CALL_CENTER—Contains contact center metadata

Column expression: UPPER("NAME")

Index: IX_CALL_CREGION_NAME

Table: REGIONS—Contains metadata for geographic regions, reporting regions and operating units

Column expression: UPPER("NAME"), UPPER("TYPE")

Index: IX_CG_UP

Table: CONTACT_GROUP—Contains metadata for workforce contact groups

Column expression: UPPER("NAME")

Index: IX_CG_ORIGIN

Table: CONTACT_GROUP

Column expression: UPPER("WFM_EQUIVALENT_ID"), UPPER("SOURCE_SYSTEM")

Index: IX_CONTACT

Table: CONTACT—Contains Advisors users contact data

Column expression: UPPER("EMAIL")

Index: IX_PG_NAME

Table: PG—Contains metadata for peripheral gateways

Column expression: UPPER("PG_NAME")

Index: IX_USERS_USERNAME

Table: USERS—Contains the list of Advisor users

Column expression: UPPER("USERNAME")

Index: IX_KEY_ACTION_NAME

Table: KEY_ACTION

Column expression: UPPER("NAME")

Index: IX_ADAPTER_INST_HOST_PORT

Table: ADAPTER_INSTANCES

Column expression: UPPER("HOST")

Secure Deployment for MS SQL Server 2008

For MS SQL Server 2008 secure deployment, Genesys recommends using MS SQL Server Transparent Data Encryption (TDE) which performs a real-time I/O encryption and decryption of the data and log files. This method has only a minor impact on performance, which is critical for the Advisors Suite.

It is important to mention that TDE is available only for MS SQL Server Enterprise edition. The data cannot be encrypted using TDE if any other MS SQL Server edition is used.

Advisors Suite MS SQL databases do not have any properties that can prevent the application of TDE. The databases do not contain any READ-ONLY file groups, full text indexes or filestreams. Users must follow the standard Microsoft documentation related to this topic.

Note: The Advisors Suite does not support MS SQL Server cell-level encryption.



Part

2

Deploying Advisor Components

Part 2 of this document describes the deployment of all Advisor components. This information appears in the following chapters:

- [Deploying Advisors Platform, page 117](#)
- [Deploying Genesys Adapter, page 153](#)
- [Deploying Cisco Adapter, page 227](#)
- [Deploying Contact Center Advisor and Workforce Advisor, page 247](#)
- [Deploying Frontline Advisor, page 331](#)
- [Bulk Configuration, page 355](#)
- [Migration Utilities, page 395](#)
- [Deployment Generics, page 411](#)

Screenshots are included in procedures as an aid only. The appearance of installer screens can vary from release to release. You may see minor differences in appearance between your installation screens and those provided in this book.

6

Deploying Advisors Platform

This chapter describes how to deploy the Advisors Platform component. It contains the following sections:

- [Deploying Advisors Platform, page 117](#)
- [Troubleshooting Installation Errors, page 137](#)
- [Changing Memory Allocations, page 139](#)
- [Changing the Members of an Advisors Cluster, page 140](#)
- [Configuring the Logs of Administrative Actions, page 141](#)
- [Changing a Data Source Configuration after Installation, page 143](#)
- [Changing the Mail Server Configuration After Server Installation, page 144](#)
- [Changing Encrypted Passwords After Installation, page 145](#)
- [Adding a Text Message on the Login Page, page 145](#)
- [Customizing the Logo and Colors in the Advisors Browser, page 146](#)
- [Deploying and Configuring Apache, page 147](#)
- [Latency Getting to the Login page, page 151](#)

Deploying Advisors Platform

The installer will not upgrade an existing installation. The old installation must be completely removed by deleting its installation directory.

If you plan to do this, uninstall the Windows services for the Advisors CCAAdv XMLGen and Advisors Suite Server before you delete the installation directory. You must do this if you are going to re-install Genesys Advisors in a different directory from the one in which it is currently installed. This is because uninstalling the Windows services requires files that are in the

installation directories you are going to delete. Once you delete them you cannot uninstall the Windows services.

User Authentication

From release 8.1.1, all user authentication is performed by Genesys Configuration Server. The Advisors Platform module, which is responsible for handling user authentication for all other modules (Contact Center Advisor, Workforce Advisor, and Frontline Advisor) now connects to the Configuration Server via the PSDK. When a user tries to log in, the credentials are passed to the Configuration Server for validation.

This change means that where previously customers need to maintain two sets of Genesys accounts, one for the Genesys Platform and one for Advisors, this duplication is now removed and a single authentication mechanism replaces it.

Additionally, from release 8.1.2, all user attributes and the agent groups into which they are organized are created and maintained within the Genesys Configuration Manager. No user record maintenance is carried out in the Advisors Administration module.

From release 8.1.2, users can belong to more than one agent group. Previously users could belong to only a single agent group.

Cisco Impact

A migration tool is provided for Cisco customers to import the user accounts from the Advisors database to the Configuration Server. This tool provides a simple bulk push of all existing user accounts in the Advisors database to the Configuration Server under the *Resources* tenant. The access groups in the Configuration Server are also set up under the *Resources* tenant, and the user accounts are added to the appropriate access groups based on their role.

User Access to Modules

All access to Advisors modules is maintained in the Genesys Configuration Manager from release 8.1.2 onwards.

Please see the *Performance Management Advisors 8.1 Contact Center Advisor & Workforce Advisor Administration User's Guide* for details of role-based access control (RBAC).

Installation Process

Procedure: Uninstalling Windows services

Start of procedure

1. Stop the Windows services for Advisor's components.
2. Close the Services window.
3. Open a command prompt window.
4. Change directory to the Advisors base directory (the one in which you installed Genesys Advisors), and then change it to `bin\windows-x86`.
5. Run the command: `UninstallAdvisorsServer.bat`.
6. Change the directory to the one in which XMLGen is installed.
7. Run the command `UninstallXmlgen.bat`.
8. If Genesys Adapter is installed, change the directory to the one in which the Genesys Adapter is installed, then change it to `bin`.
9. Run the command `Uninstall-Adapter-NT.bat`.

Note: Repeat Steps 8 and 9 if Cisco Adapter is installed.

10. Close the command prompt window.
11. Delete all contents from the Advisors base directory.

Note: Do NOT delete all the contents of the GCTI directory, because this may contain non-Advisors Genesys components.

End of procedure

Deploying Platform

Each application (such as dashboards, the System Administration module, the Workforce Web Service, and the XMLGen application) requires the installation of the Advisors Platform. The Platform installer installs the base services:

- Geronimo
- Base web
- Navigation service

- Mail-Delivery service
- Preferences service
- Cache service
- Security Realm
- The data source
- Cluster Manager

Note: Each application (such as dashboards, the System Administration module, the Workforce Web Service, and the XMLGen application) relies on Advisors Platform to function. It is very important that you enter complete information on all installation screens when deploying the Advisors Platform to ensure correct functionality in the applications.

Procedure: Deploying Platform

Prerequisites

- Connection to the Genesys Configuration Server must be established in a Genesys environment. The Advisors Platform installer prompts you for Genesys Configuration Server connection details.
- Databases must be initialized. The Advisors Platform installer prompts you for connection details.
- Ensure you have information about your mail server. The Advisors Platform installer prompts you for SMTP server information.
- The Object Configuration User is configured in the Genesys Configuration Server. The Advisors Platform installer prompts you for the Object Configuration User account name. For more information, see “Data Manager” on [page 50](#).
- JDK must be installed on the server on which you are deploying Advisors Platform. The Platform installer prompts you for the root directory of the JDK.
- If you plan to connect to the Configuration Server using TLS, you must first do the following:
 - Configure a secure port for Genesys Configuration Server. For more information, see *Genesys 8.1 Security Deployment Guide*.
 - Configure security certificates.
 - Configure the security providers and issue security certificates. For more information, see [Genesys 8.1 Platform SDK Developer's Guide](#).

- Assign a certificate to the Configuration Server host in Configuration Manager. For more information, see *Genesys 8.1 Security Deployment Guide*.

Start of procedure

1. On the system on which you are installing platform, set the Regional and Language Options to the locale for which you want the servers to be deployed.
You can reach the Regional and Language Options through the Start menu > Settings > Control Panel.
For an English locale, choose English (United States). For a German locale, choose German (Germany).
2. Run the installation jar file by either;
 - Using the command `java -jar advisors-platform-installer-<version>.jar` (recommended); or;
 - Double-clicking the `advisors-platform-installer-<version>.jar` in the release bundle.

Note: Double-clicking may not work due to system settings, but using the command line terminal should always work.



Figure 32: Installer Screen

3. Click Next. The Module to Install screen displays (see Figure 33 on [page 122](#)).

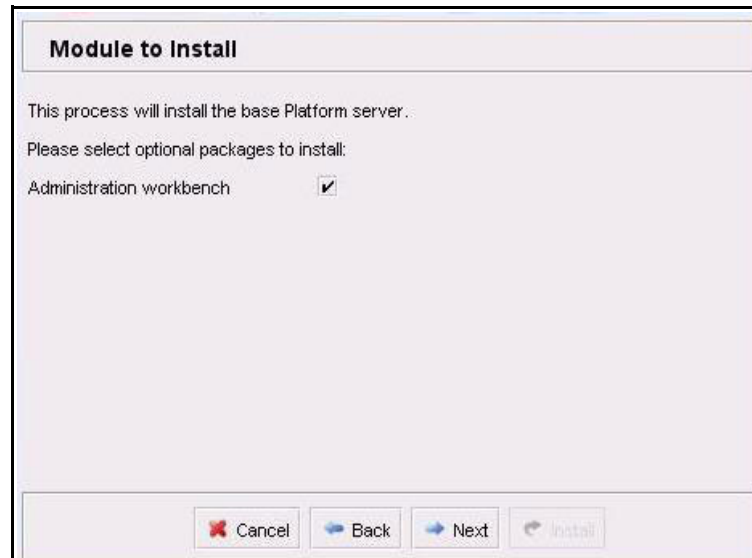


Figure 33: Module to Install Screen

4. Check the Administration workbench checkbox to install this package. Selecting this option installs the Administration module in the Advisors browser.

Starting in Release 8.1.5, Frontline Advisor administration is combined with the Administration workbench (module). To administer FA, you must install the Administration workbench with at least one FA instance. See the following notes for details about installing the Administration workbench with FA in distributed mode.

Notes: If you are installing Advisors Platform to support a clustered Advisors suite server, then install only one instance of the Administration workbench, on one system in the cluster.

It is best to install the Administration workbench on a system that is not running the web services for one of the Advisors applications.

For more information about a clustered Advisors suite server, see “Scaling the System to Increase Capacity” on [page 66](#).

5. Click Next. The Languages for E-Mail Templates screen displays.

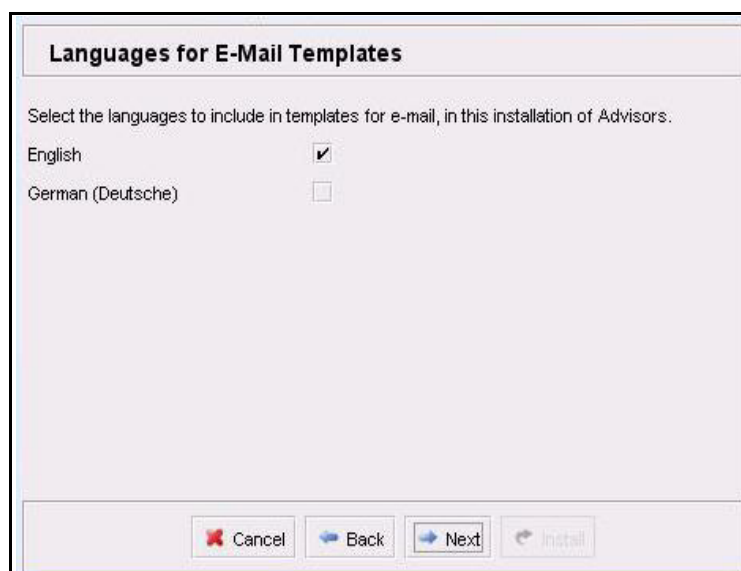


Figure 34: Languages for E-Mail Templates Screen

6. Select the language for your installation. If no languages are selected, English is used.
You can choose either option, or both, regardless of the regional and language setting of the system on which you are installing the platform.
7. Click Next. The *Destination Directory* screen displays.

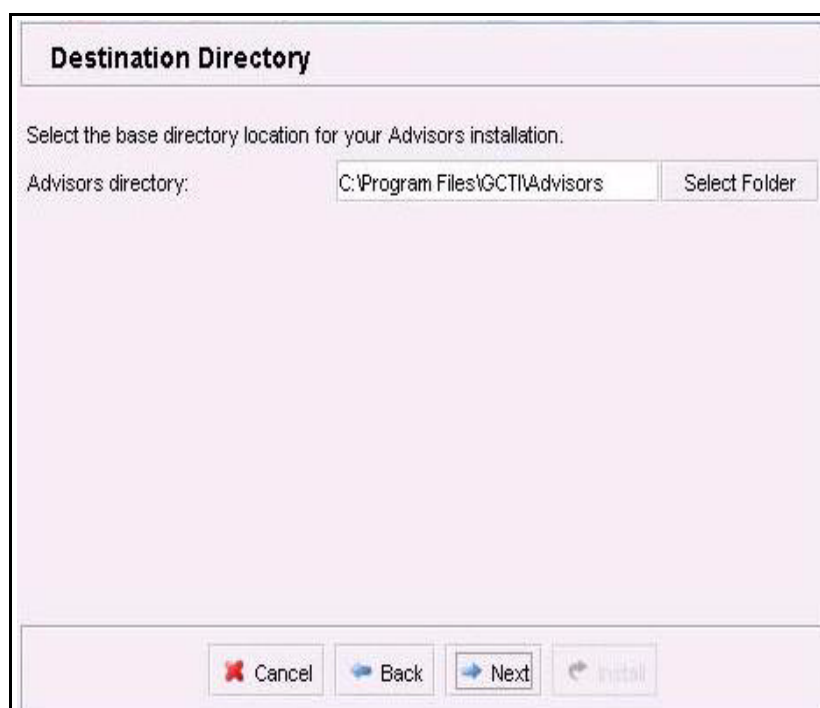


Figure 35: Destination Directory Screen

8. Select the destination directory in which the files will be installed (the Advisors base directory).

The default directory is `..\GCTI\Advisors`. If this directory does not yet exist, you will be prompted to create it.

Click Next.

9. The Java Development Kit screen displays (Figure 36 on [page 124](#)).

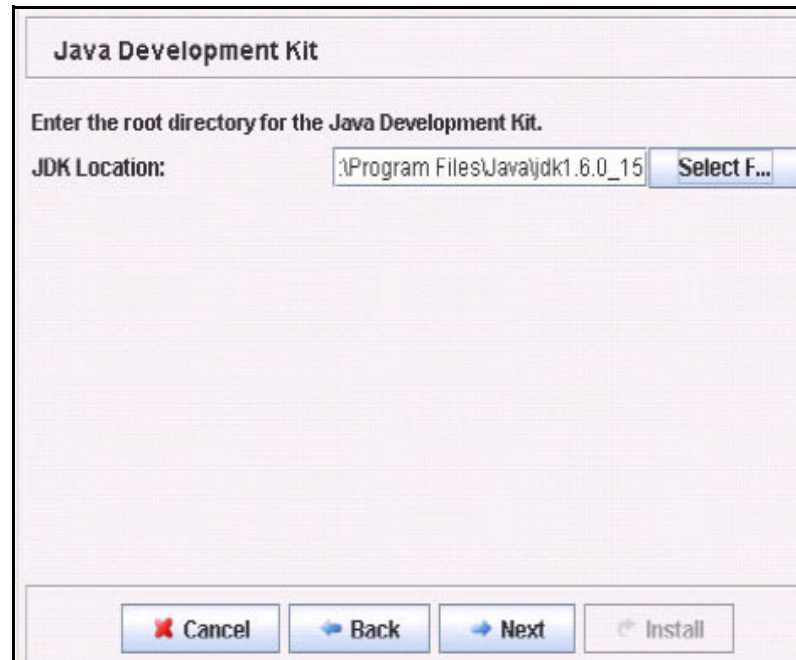


Figure 36: Java Development Kit Screen

10. Enter or select the JDK folder location for the Java Development Kit and click Next. The Cluster Node Configuration screen displays ([Figure 37](#)).

Cluster Node configuration

Enter a unique string that can be used to identify this node as part of its cluster

Enter this installation's Node ID

Node ID (max 16)

Enter the IP address or hostname that other members of the cluster can use to contact this node.

Enter this installation's IP address or hostname

IP Address/Hostname

Enter the address used to identify localhost (i.e. 127.0.0.1 or 'localhost')

Enter the localhost address for this machine

Localhost Address (max 32)

Figure 37: Cluster Node Configuration Screen

11. Each server on which you install Platform requires a unique cluster node. Configure the node with the following information:
 - **Node ID**—A unique ID across all Platform installations. Must not contain spaces or any special characters, must be only alpha numeric. Node IDs are not case sensitive. Within one cluster, Node1, node1, and NODE1 are considered to be the same ID. You can use node1, node2, and so on.
 - **IP Address/Hostname**—The IP address or host name that other cluster members will use to contact this node, not localhost nor 127.0.0.1, for example, 192.168.100.1.
 - **Localhost address**—The local host address, localhost or 127.0.0.1.

Note: When using numerical IP v6 addresses, please enclose the literal in brackets.

Click Next.

12. The Genesys Configuration Server Connection Details page displays. [Figure 38](#) shows the installer screen for releases that do not support a Transport Layer Security (TLS) connection. [Figure 39](#) shows the installer screen for releases that support a TLS connection.
- To configure a TLS connection to the Configuration Server, you must select that option on the installation screen, enter the Configuration Server TLS port number, and identify the location of the TLS properties file. The

TLS properties file contains all the properties required to connect successfully using TLS, as well as any other optional TLS attributes that you use.

Genesys Config Server Connection Details

Config Server Name: confserv

Config Server Address: inf-wolf-4

Config Server Port Number: 2020

Config Server Client Name: default

Config Server user: default

Config Server password:

Confirm password:

Buttons: Cancel, Back, Next, Install

Figure 38: Genesys Configuration Server Connection Details page

Installer Wizard

Genesys

Genesys Config Server Connection Details

Config Server Name:

Config Server Address:

Config Server Port Number:

Config Server Client Name:

Config Server user:

Config Server password:

Confirm password:

Enable TLS Connection? ☒

Config Server TLS Port Number:

Locate TLS properties file: C:/ Select File

Buttons: Cancel, Back, Next, Install

Figure 39: Genesys Configuration Server Connection Details including TLS

13. Complete the details of the Genesys Configuration Server to which this instance of Platform will connect.
 - Name—The name of the primary configuration server. The name is obtained from the Configuration Manager and is case sensitive.

- **Config Server Address**—The name or IP address of the machine hosting the Configuration Server.

Note: When using numerical IPv6 addresses, please enclose the literal in brackets.

- **Port Number**—The port that the configuration server is listening on. If you enter a port number in this field, and then enable a TLS connection, this port number is ignored.
- **Client Name**—Enter the login credentials of the user account assigned for use by the Advisors Platform to access the Configuration Server.
- **User name**—The user name of the account that Advisors Platform will use to connect to the Configuration Server.
- **Password**—The password of the account that Advisors Platform will use to connect to the Configuration Server.

Note: The Genesys Configuration Server password is encrypted and saved in the `.. \GCTI\Advisors\conf\GenesysConfig.properties` file by default (unless altered in Step 4). To change the password see “Changing Encrypted Passwords After Installation” on [page 145](#).

- **Enable TLS connection**—To configure a TLS connection to the Configuration Server, select this option on the installation screen.
- **Config Server TLS Port Number**—Enter the Configuration Server TLS port number. Advisors Platform uses the TLS port number, when TLS is enabled, instead of the unsecured port number.
- **Locate TLS properties file**—Identify the location of the TLS properties file. The TLS properties file contains all the properties required to connect successfully using TLS, as well as any other optional TLS attributes that you use.

14. Click Next. If you are installing a release prior to 8.1.5, skip this Step.

Starting in Release 8.1.5, the Object Configuration User screen displays (see [Figure 40](#)). If you are installing an earlier release of Advisors Platform, go to the next Step.

Optionally, enter the name of the Object Configuration User account (configured in Configuration Server). The Object Configuration User account is used by Data Manager for object configuration for the CCAdv/WA modules.

You are not prompted for the password for this user account because there is no user authentication performed for this user.

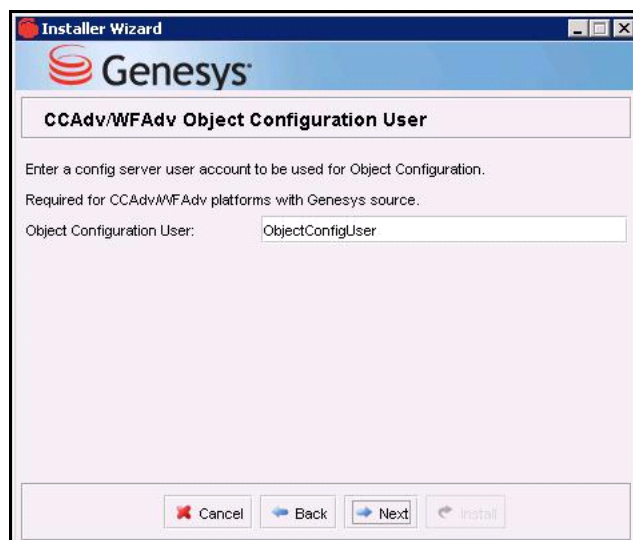


Figure 40: Contact Center Advisor/Workforce Advisor Object Configuration User screen

15. The User Management Options page displays.

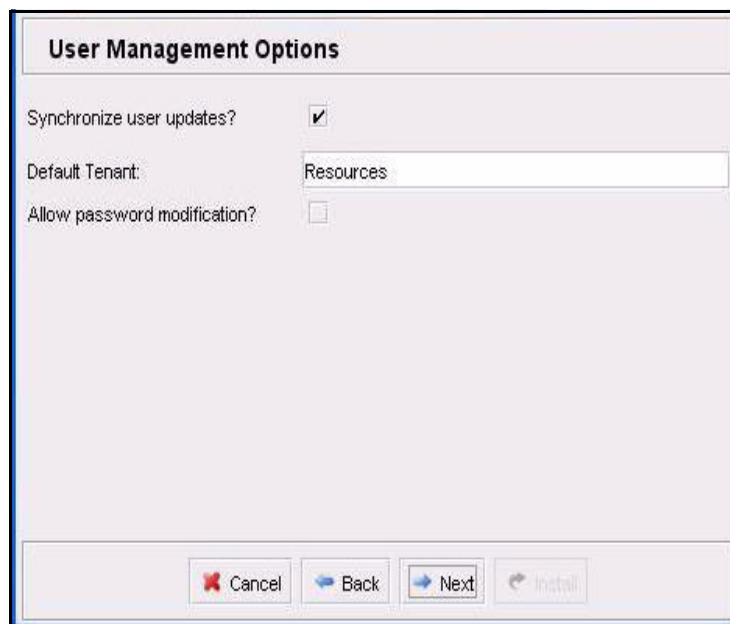


Figure 41: User Management Option page

16. To synchronize user updates, check the check box.

Note: Selecting this option controls whether update events from the Configuration Server result in updating the Advisors database with the new information.

In a clustered environment, a single Platform instance must be designated as responsible for maintaining the user account synchronization. Other Platform instances in the cluster will continue to provide PSDK access to Advisors modules, so for them, this configuration option can be deselected.

Enabling this option on multiple clustered instances of Platform will result in redundant updates to the database.

17. Add the name of the default Genesys tenant to which new users will be added.

Note: The name of the tenant is case sensitive.

18. Select `Allow Password Modification?` to enable the `Forgot your password?` functionality in the Advisors login page, the Administration module, and the dashboards. If you leave this option unselected, you still see the functionality in the user interface. But if you try to use it, Advisors tells you that password modification is not enabled.

Note that the user's ability to see this functionality depends on the privilege `Advisors.ChangePassword.canView` being granted to the user in Configuration Manager.

Warning! Beginning in Release 8.1.5, Performance Management Advisors support Genesys Management Framework Release 8.1.2, but do not fully support the password security authentication options available in Management Framework. Users can be locked out of the Advisors browser if you use Genesys Management Framework 8.1.x in your enterprise. To avoid lockouts, do one or both of the following:

- Change the following two options in Management Framework to `true`: the no password change at first login option and the override password expiration option.
- Assign the `Advisors.ChangePassword.canView` privilege to all users.

For information about the no password change at first login and override password expiration options, see *Genesys Framework 8.1 Configuration Options Reference Manual*.

19. Click `Next`. The `Database Type` screen displays.

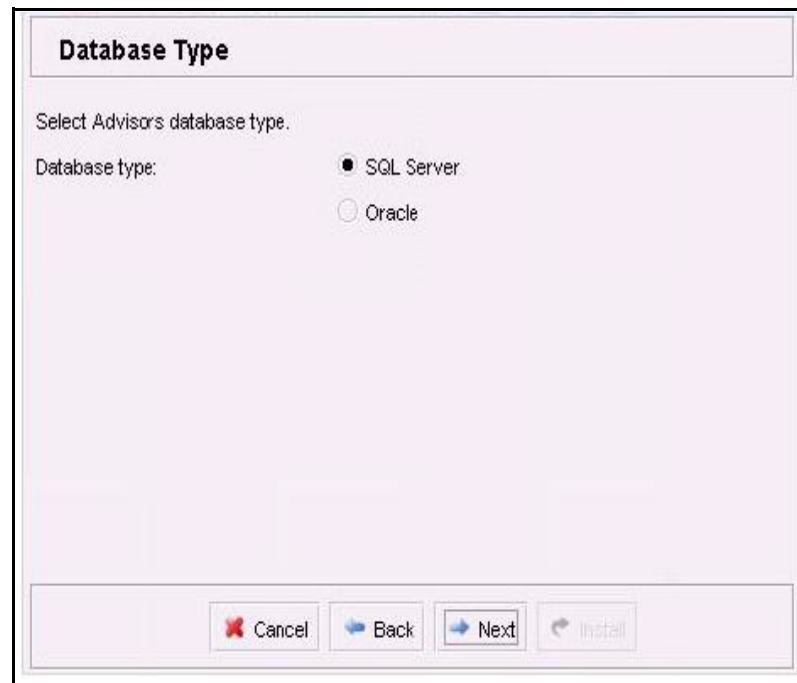


Figure 42: Database Type Screen

20. Select the database type for this installation:

- Microsoft SQL Server
Click Next and go to [Step 21](#).
- Oracle
Click Next and go to [Step 23](#)

21. The Genesys Advisor Platform Database screen for MS SQL is displayed.

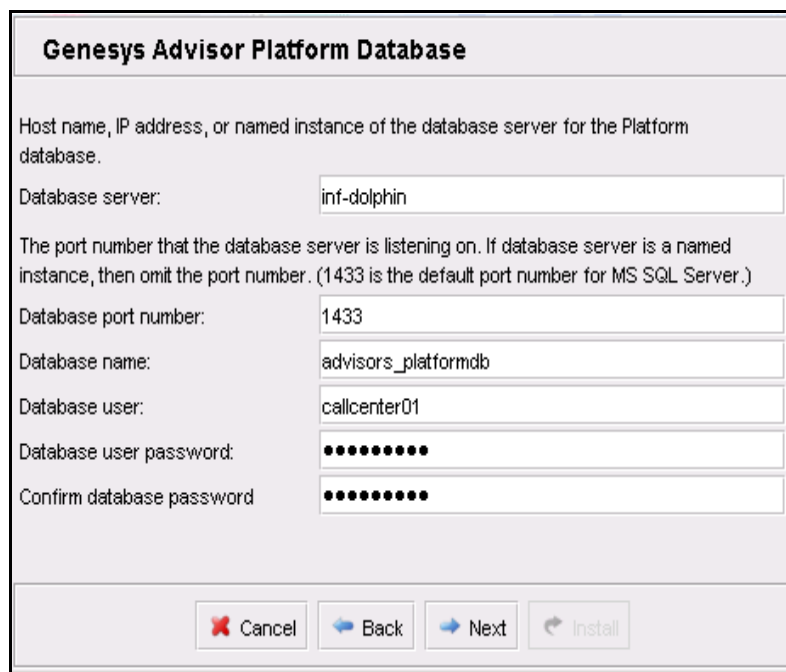


Figure 43: Genesys Advisor Database Screen for MSSQL

22. Enter the database connectivity parameters for the already created or upgraded database (that is, the database must be present and at the current version prior to running the installer). These parameters are server (machine), port number, name, user, and password.

Note: When using numerical IP v6 addresses, please enclose the literal in brackets.

If the database server is a named instance, then omit the port number. Click Next. The Mail Service Configuration screen is displayed (Figure 48 on [page 136](#)). Go to [Step 30](#).

23. If you selected Oracle as the database type, and if the Oracle setup type screen is available in your Advisors Platform installer (available starting in Release 8.1.4), select the Oracle setup option that describes your environment (see [Figure 44](#)):
 - Select the Basic option if you are using a single-instance Oracle database. The following steps describe the Basic Oracle setup.
 - Select the RAC connectivity setup option to connect to Oracle RAC. Go to [Step 27](#) to continue.

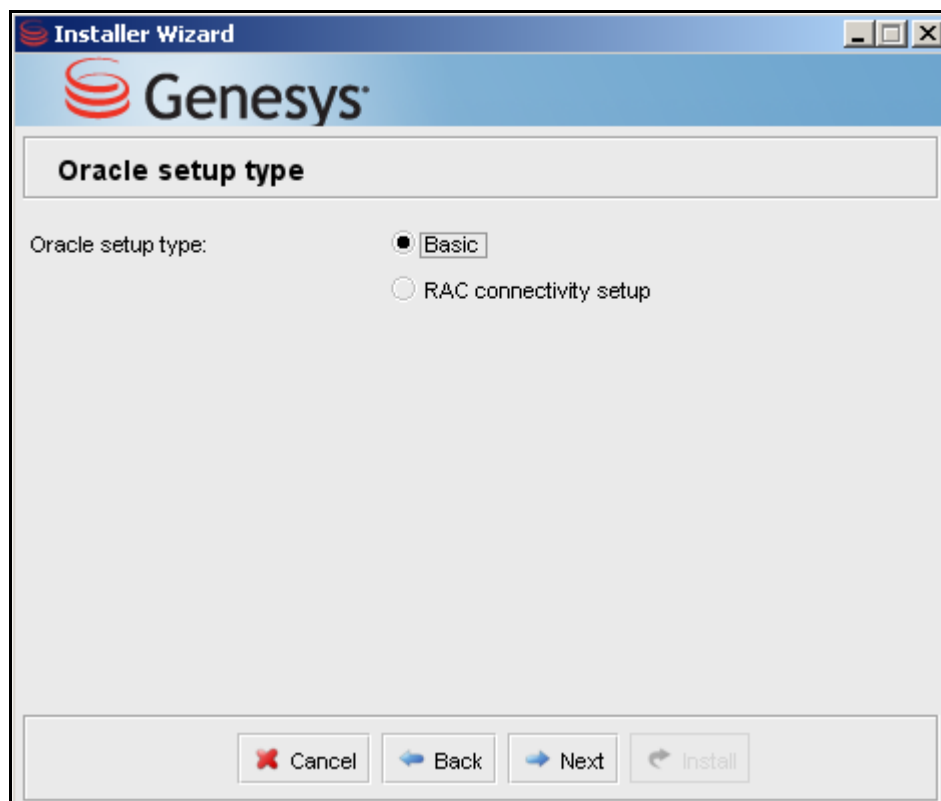


Figure 44: Genesys Advisors Platform Oracle setup type screen

24. The Genesys Advisor Platform Database screen for Oracle is displayed.

The screenshot shows a window titled "Genesys Advisor Platform Database". It contains several input fields with labels and instructions. The "Database server:" field has the value "inf-dolphin". The "Database port number:" field has the value "1521". The "SID:" field has the value "orcl". The "Database user:" field has the value "AdvPlatform". The "Database user password:" and "Confirm database password:" fields are masked with dots. At the bottom are four buttons: "Cancel" (with a red X icon), "Back" (with a left arrow icon), "Next" (with a right arrow icon), and "Install" (with a circular arrow icon).

Figure 45: Genesys Advisors Platform Database Screen for Oracle - Basic

25. Specify the parameters for the Platform Oracle database:

- Database Server—The host name where the database server is running
- Database port number—The database server's port number
- SID—Unique name of the database instance.
- Database user and password—The database schema created / used for the Platform database.

Note: When using numerical IP v6 addresses, please enclose the literal in brackets.

26. Click Next. Go to [Step 28](#).

27. If you selected the Oracle RAC connectivity option, configure Advisors Platform to connect to Oracle Real Application Clusters (RAC); enter information in all text fields on the Genesys Advisors Platform Database - RAC screen (see [Figure 46](#)).

The Database user and password refers to the database schema created and used for the Platform database.

In the `Locate file` field, enter the location of the file that contains the RAC JDBC URL (you should have the freeform JDBC URL in a text file). The installer applies the specified freeform JDBC URL when configuring the datasources. If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator.

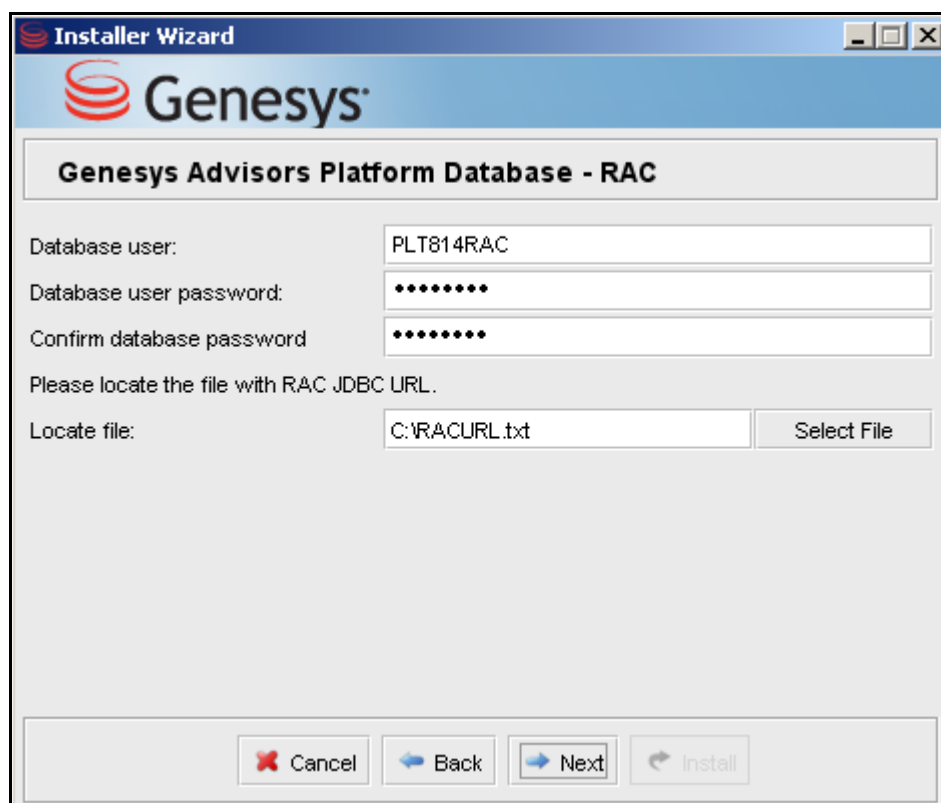


Figure 46: Genesys Advisors Platform Database – RAC screen

28. Locate the Oracle JDBC driver, then click Next.

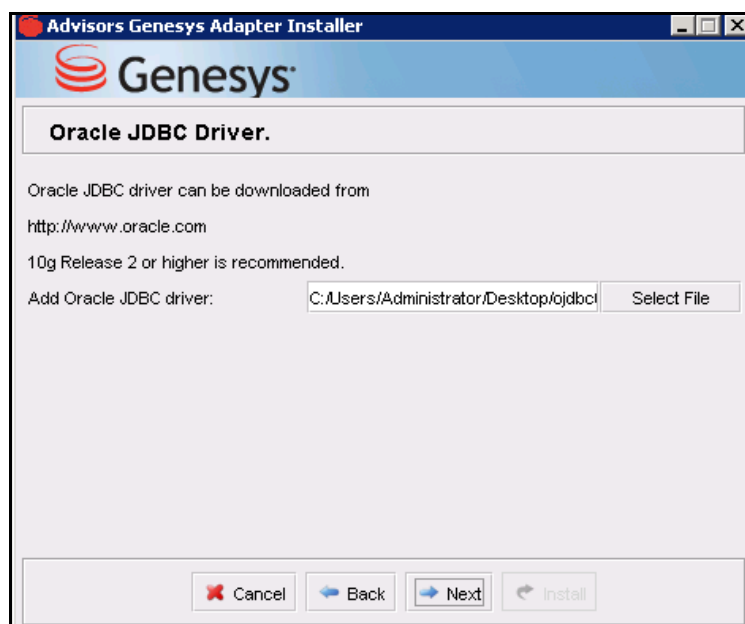


Figure 47: Oracle JBDC Driver Screen

Note: The following Oracle JDBC drivers can be used:

- Oracle database 10g release 2 (10.2.0.4). The download file is `ojdbc14.jar`.
 - Oracle database 11g release 2 (11.2.0.2.0). The download file is `ojdbc6.jar`.
-

29. The Mail Service Configuration screen is displayed (Figure 48 on [page 136](#)).

Mail Service Configuration

SMTP service to be used for notification messages sent from the mail service:

SMTP server:

Default address from which to send application notification E-Mails.

Application from address:

Default address to which to send application notification E-Mails.

Application to address:

Buttons:

Figure 48: Mail Service Configuration Screen

30. Enter the SMTP and e-mail parameters.
31. Click Next. The Installation Progress screen is displayed.
32. Click Install.
The progress displays on the Output tab. Any errors display in the Errors tab.
33. If no errors display, dismiss the Finished popup. The Output tab displays the message Build Successful and the total time taken for the deployment.
34. If errors display, diagnose them in the Errors tab, or refer to “Troubleshooting Installation Errors” on [page 137](#).
35. Install the Advisors windows service:
 - a. Open a command prompt, and change directory first to your Advisors base directory (for example, Program Files\GCTI\Advisors), then to bin\windows-x86.
 - b. Run InstallAdvisorsServer.bat.

End of procedure

Next Steps

- If you are running Platform with a 64-bit JVM, Genesys recommends that you increase your Geronimo PermGen memory settings.

Troubleshooting Installation Errors

The following are parameter validation errors that you may encounter at the end of installation:

Table 6: Installation Error Messages

Error Message	Cause
<pre>[echo] Setting up cluster member configuration for this node [java] Connecting to database: inf-wolf.us.int.genesyslab.com;oracle:1521;DatabaseName=orcl;user= yevgeny_plt_81 ... [java] updating node: KoolNode ipAddress: 138.120.xx.xx localhost: localhost [java] java.sql.SQLException: ORA-01013: user requested cancel of current operation [java] at oracle.jdbc.driver.Database Error.throwSQLException(DatabaseError.java:112) [java] at oracle.jdbc.driver.T4CTTioer.process Error(T4CTTioer.java:331) [java] at oracle.jdbc.driver.T4CTTioer.process Error(T4CTTioer.java:288) [java] at oracle.jdbc.driver.T4C80all.receive(T4C80all.java:745) [java] at oracle.jdbc.driver.T4CPreparedStatement. doOall8(T4CPreparedStatement.java:219) [java] at oracle.jdbc.driver.T4CPreparedStatement. executeForRows(T4CPreparedStatement.java:970) [java] at oracle.jdbc.driver.OracleStatement. doExecuteWithTimeout(OracleStatement.java:1190) [java] at oracle.jdbc.driver.OraclePreparedStatement. executeInternal(OraclePreparedStatement.java:3370) [java] at oracle.jdbc.driver.OraclePreparedStatement. executeUpdate(OraclePreparedStatement.java:3454) [java] at com.informiam.installer.DAO.executeTimedOutUpdate (DAO.java:214) [java] at com.informiam.installer.ConfigureClusterMember. performActivities(ConfigureClusterMember.java:60) [java] at com.informiam.installer.AbstractDatabaseUtility. doMain(AbstractDatabaseUtility.java:56) [java] at com.informiam.installer.ConfigureClusterMember. main(ConfigureClusterMember.java:34)</pre>	<p>This type of error may happen when the installer attempts to update a table which is locked by a not-committed transaction (usually with Oracle database).</p> <p>The wording of the error may differ, but the key phrase to look for is "ORA-01013: user requested cancel of current operation".</p> <p>Typically this could happen with Oracle database when someone runs a query like <code>DELETE FROM <TABLE_NAME></code> without then executing <code>COMMIT</code>; and the installer tries to update the same table.</p> <p>In this case, the installer will wait for 20 seconds and fail with an error similar to the above. To correct this, execute <code>COMMIT</code>; after the <code>DELETE</code> statement and re-run the installer. To prevent this situation, always run <code>COMMIT</code>; when manually updating tables in Oracle.</p>
<pre>[java] Failed to connect to the database using connection URL: [java] jdbc:sqlserver://192.168.xx.yy:nnn;DatabaseName=ys_pldb;user=sa;pa ssword=very_secure_pwd;selectMethod=cursor [java] The following exception was thrown: com.microsoft.sqlserver.jdbc.SQLServerException: The TCP/IP connection to the host 192.168.xx.yy, port nnn has failed. Error: "Connection refused. Verify the connection properties, check that an instance of SQL Server is running on the host and accepting TCP/IP connections at the port, and that no firewall is blocking TCP connections to the port.</pre>	<p>Wrong database server name / IP address or port number</p>

Table 6: Installation Error Messages (Continued)

Error Message	Cause
<pre>[java] Failed to connect to the database using connection URL: [java] jdbc:sqlserver://192.168.xx.yy:nnnn;DatabaseName=NotAPPlatformDB;selectMethod=cursor;user=sa;password=very_secure_pwd [java] The following exception was thrown: com.microsoft.sqlserver.jdbc.SQLServerException: The TCP/IP connection to the host 192.168.xx.yy, port nnnn has failed. Error: "connect timed out. Verify the connection properties, check that an instance of SQL Server is running on the host and accepting TCP/IP connections at the port, and that no firewall is blocking TCP connections to the port."</pre>	Wrong database name
<pre>[java] Exception while connecting: Login failed for user 'badUserId'. [java] url used: jdbc:sqlserver://192.168.xx.yy:nnnn;DatabaseName=ys_pldb;selectMethod=cursor;user=badUserId;password=very_secure_password</pre>	Wrong database user name or password
<pre>[echo] pinging cluster node IP address 138.120.yy.zz... [java] WARNING! Host 138.120.yy.zz is unknown - java.net.UnknownHostException: 138.120.yy.zz. This may be due to a firewall blocking requests or a specific server configuration, e.g.: permissions. [java] ERROR! Host 138.120.yy.zz is unknown - java.net.UnknownHostException: 138.120.yy.zz. This may be due to a firewall blocking requests or a specific server configuration, e.g.: permissions. [java] Exception in thread "main" java.security.InvalidParameterException: Host 138.120.yy.zz is unknown - java.net.UnknownHostException: 138.120.yy.zz. This may be due to a firewall blocking requests or a specific server configuration, e.g.: permissions.</pre>	<p>The cluster member node identified by the IP address specified is not reachable. This may be for one of the following reasons:</p> <ul style="list-style-type: none"> • The host is not online • A firewall is blocking access to the host • The IP address of the host is incorrect • The host is configured not to respond to ICMP ping requests

Table 6: Installation Error Messages (Continued)

Error Message	Cause
<pre>Apr 11, 2011 3:53:46 PM oracle.jdbc.driver.OracleDriver registerMBeans WARNING: Error while registering Oracle JDBC Diagnosability MBean. java.security.AccessControlException: access denied (javax.management.MBeanTrustPermission register) at java.security.AccessControlContext.checkPermission(Unknown Source) at java.lang.SecurityManager.checkPermission(Unknown Source) at com.sun.jmx.interceptor.DefaultMBeanServerInterceptor.checkMBeanTr ustPermission(Unknown Source) at com.sun.jmx.interceptor.DefaultMBeanServerInterceptor.registerMBea n(Unknown Source) at com.sun.jmx.mbeanserver.JmxMBeanServer.registerMBean(Unknown Source) at oracle.jdbc.driver.OracleDriver.registerMBeans(OracleDriver.java:3 60) at oracle.jdbc.driver.OracleDriver\$1.run(OracleDriver.java:199) at java.security.AccessController.doPrivileged(Native Method) at oracle.jdbc.driver.OracleDriver.<clinit>(OracleDriver.java:195)</pre>	<p>Produced in error and can be ignored.</p> <p>Displays in the Errors tab when installing Platform with Oracle JDBC driver ojdbc6-11.2.0.2.0, and accurately reports that installation was successful.</p>
<pre>Exception in thread "AWT-EventQueue-0" java.lang.ArrayIndexOutOfBoundsException: 32 at sun.font.FontDesignMetrics.charsWidth(Unknown Source) at javax.swing.text.Utilities.getTabbedTextOffset(Unknown Source) at javax.swing.text.Utilities.getTabbedTextOffset(Unknown Source) at javax.swing.text.Utilities.getTabbedTextOffset(Unknown Source) at javax.swing.text.PlainView.viewToModel(Unknown Source) at javax.swing.text.FieldView.viewToModel(Unknown Source) at javax.swing.plaf.basic.BasicTextUI\$RootView.viewToModel(Unknown Source) at javax.swing.plaf.basic.BasicTextUI.viewToModel(Unknown Source)</pre>	<p>Produced in error and can be ignored.</p>
<pre>[loadfile] Unable to load file: java.io.FileNotFoundException: C:\ (The system cannot find the path specified)</pre>	<p>Produced in error and can be ignored.</p>

Changing Memory Allocations

If the `geronimo.log` for the Advisors Suite server is reporting an out of memory error, set the heap size higher by editing the `<install dir>/conf/advisors-server-wrapper.conf` file. About a third down the file, change the following lines:

```
# Initial Java Heap Size (in MB)
wrapper.java.initmemory=128
```

```
# Maximum Java Heap Size (in MB)
```

```
wrapper.java.maxmemory=1024  
to  
# Initial Java Heap Size (in MB)  
wrapper.java.initmemory=800
```

```
# Maximum Java Heap Size (in MB)  
wrapper.java.maxmemory=1200
```

If the log is reporting a PermGen out of memory error, increase the permanent generation memory by editing the following line in the same file:

```
wrapper.java.additional.13=-XX:MaxPermSize=128m  
to  
wrapper.java.additional.13=-XX:MaxPermSize=256m
```

This increase in PermGen memory is normally required only when Platform uses a 64-bit JVM. The most memory you can allocate to `wrapper.java.maxmemory` under 32-bit windows is 1600MB, but with 64-bit Windows, much larger values can be used.

If the problem persists, experiment with higher values; however, the service may fail to start if it is unable to allocate all of the memory requested from the operating system. This will be noticeable if the server fails to start (reports an error during start). Turn various log settings to DEBUG in the conf file to help diagnose problems.

Changing the Members of an Advisors Cluster

For the definition and overview of an Advisors modules cluster, see “Advisors Cluster Information” on [page 69](#).

Information about nodes is stored in the CLUSTER_MEMBER table of the Platform database. Each node in the cluster is represented by one row in that table.

When you install Advisors Platform on a system that is a cluster member, the installer creates an entry for that node in the table.

Each node entry in the CLUSTER_MEMBER table has the following properties:

- NAME
- IP_ADDRESS
- LOCALHOST_ADDRESS

The Platform installer adds the values you enter in the `Cluster Node configuration` screen to that node entry in the Platform database table. Valid values for the properties are specified in [Step 11](#) of the [Procedure: Deploying Platform](#).

To change the cluster after installing Advisors, you can modify the `CLUSTER_MEMBER` table in the Platform database. Make sure that the values you enter meet the specifications in the procedure about installing Platform (see [Step 11](#) of the [Procedure: Deploying Platform](#)).

The names on the Cluster Node configuration screen, and the properties in the `CLUSTER_MEMBER` table, correspond as follows;

- Node ID = NAME
- IP address/hostname = IP_ADDRESS
- Localhost address = LOCALHOST_ADDRESS

Configuring the Logs of Administrative Actions

In release 8.1.2 and later, all administration actions carried out in the Advisors environment are logged. The following sections give information about how the logging should be configured.

Modules for which Actions are Logged

The following modules have administrative logging available:

- Advisors Administration for Contact Center Advisor and Workforce Advisor

Note: Beginning in Release 8.1.3, Metrics logs are replaced with Metric Manager audit logs (generated when a user creates a new metric, attempts but fails to create a new metric, deletes a metric).

- Advisors Genesys Adapter

Modules for which Actions are Not Logged

- Configuration Server, for actions on objects used by Contact Center Advisor and Workforce Advisor.
- Frontline Advisor Administration
- Resource Management Administration
- Alert Management
- Action Management

Actions Not Logged by This Functionality

Changes to contact groups that are made when contact groups are imported from a WFM system are not captured by this logging functionality.

Information Logged

The following information about each action is logged:

- A timestamp of when the action's data was saved in the format specified by the log configuration properties. (See "Configuring the Audit Logs" on [page 142](#).)
- The username of the user who performed the action.
- The properties or relationships of the object that are being changed by the action, showing their values both before and after the action.
- Whether the action succeeded or not.

Configuring the Audit Logs

The audit logs are separate files written in the directory that contains the Geronimo logs. This directory is:

```
... \Advisors\geronimo-tomcat6-minimal-2.2.1\var\log\
```

The audit log is configured by log4j properties in Geronimo's `server-log4j.properties` file, in this directory:

```
... \Advisors\geronimo-tomcat6-minimal-2.2.1\var\log.
```

Sample log4j Appender

This section contains the definition of the appender that configures the audit logs.

```
log4j.appender.ADMINISTRATIONAUDIT.append=true
log4j.appender.ADMINISTRATIONAUDIT.file=${org.apache.geronimo.server.dir}/var/log/AdministrationAudit.log
log4j.appender.ADMINISTRATIONAUDIT.bufferedIO=false
log4j.appender.ADMINISTRATIONAUDIT.maxBackupIndex=3
log4j.appender.ADMINISTRATIONAUDIT.maxFileSize=10MB
log4j.appender.ADMINISTRATIONAUDIT=org.apache.log4j.RollingFileAppender
log4j.appender.ADMINISTRATIONAUDIT.threshold=INFO
log4j.appender.ADMINISTRATIONAUDIT.layout=org.apache.log4j.PatternLayout
log4j.appender.ADMINISTRATIONAUDIT.layout.ConversionPattern=%d %m%n
```

The appender makes the log files' names indicate the day on which they were written. If more than one file is written per day, then the name also indicates the order in which the file was produced on that day; for example:

```
AdministrationAudit.log
AdministrationAudit.log.2011-12-01.1
AdministrationAudit.log.2011-12-01.2
AdministrationAudit.log.2011-11-31.1
AdministrationAudit.log.2011-11-31.2
```

Definitions

MaxFileSize of 10 MB—Indicates that the largest size of any individual log file is 10 MB.

MaxBackupIndex0f3—Indicates that on any day, a maximum of three files will be written. If more than that are actually produced, the oldest ones will be deleted.

Changing a Data Source Configuration after Installation

The following procedure uses Advisors Platform data source as an example of how to make changes to the data source configuration after installation.

Procedure: Changing a Data Source Configuration after Installation

Start of procedure

1. Copy the data source descriptor file to a new location.

For example:

Copy geronimo-ra.xml from

```
**/GCTI/Advisors/geronimo-tomcat6-minimal-2.2.1/repository/com/
informiam/platform/platform-datasource-service/<version>/platform-
datasource-service-<version>.rar/rar/META-INF
```

to

```
**/GCTI/Advisors/platform-datasource.
```

2. Edit the descriptor (geronimo-ra.xml that you copied to **/GCTI/Advisors/platform-datasource), as required.

For example:

Edit the password.

3. Ensure the Advisors service is stopped before proceeding.
4. Open a command prompt window.
5. Navigate to the ****/GCTI/Advisors/geronimo-tomcat6-minimal-2.2.1/bin** directory.
6. Run the following command:

```
java -jar deployer.jar --offline --user system --password manager
redeploy ../../platform-datasource/platform-datasource.rar
../../platform-datasource/geronimo-ra.xml
```

Note: In the preceding example, `../../platform-datasource/geronimo-ra.xml` is the path to the recently-edited descriptor.

7. Start the Advisors service and verify that the reconfigured data source works.
8. If the database parameters require further updates, edit the data source descriptor file and run the command again to re-deploy it.
For example:
Edit `../../platform-datasource/geronimo-ra.xml` and run the command again.

End of procedure

Changing the Mail Server Configuration After Server Installation

Procedure:
Changing the Mail Server configuration after Platform server is installed

Start of procedure

1. In the `conf` directory, locate the `MailService.properties`.
2. Edit the settings.
3. For the new settings to take effect, restart the server.

4. If you have installed Contact Center Advisor XML Generator, then also change the configuration of the SMTP appender in the logging properties file for XML Generator. See “Modifying XML Generator Email Notifications about Logged Errors” on [page 304](#).

End of procedure

Changing Encrypted Passwords After Installation

The passwords provided during installation are encrypted. The Advisors password encryption utility can be used to change passwords after installation.

Procedure: Changing an encrypted password

Start of procedure

1. Open the Command prompt and navigate to the `..\GCTI\Advisors\bin` directory.
2. Run the command `encrypt-password`.
3. When prompted, enter the new password and press Enter.
4. Copy the resulting encrypted password and replace the old password in the configuration file.

End of procedure

Adding a Text Message on the Login Page

To add a message on the Login page, you must have administrative privileges on the machine where the Web components of Genesys Advisors offering reside. Once logged in, locate the `baseweb\custom\browser` directory in the Advisors installation. Modify the `remote-message.txt` file using a text editor.

Customizing the Logo and Colors in the Advisors Browser

You can change the logo and background on the Advisors Browser to display your company's logo and background. The dimensions of the new logo must be the same as the dimensions of the Genesys logo (maximum 210*52 pixels).

Procedure: Customizing the logo and colors

Start of procedure

1. In the deployment directory, navigate to the folder:
C:\<installation directory>\baseweb\custom\browser
2. Replace the existing logo file with the custom logo.
The logo filename must be `remote-logo.png` and the file should have the same dimensions as `/chrome/skin/ea/ent-images/logo.png` (210 x 52 pixels).
3. Replace the existing background file with the custom background.
The background filename must be `remote-background.jpg` and the file should have the same dimensions as `/chrome/skin/ea/ent-images/login-bkgnd.jpg`.
4. To customize Contact Center Advisor and Workforce Advisor browser colors, update the following parameters in the `skin.js` object that is in the Apache Server directory:

```
informiamCustom =
{ mainColor: '#0288D7',
  secondaryColor: '#59B1E4',
  thirdColor: '#BDE7FF',
  accentColor: '#024B7D',
  textColor: '#023E67',
```
5. Update the following parameters in the `skin.js` object to customize the colors in the Alert Management module:

```
toolBarColor: '#6893cc',
borderColor: '#3b5984',
backgroundColor: '#d2e3f8' };
```

End of procedure

Deploying and Configuring Apache

Procedure:

Deploying and configuring Apache

Purpose: To install an Apache Web Server 2.2+ instance to direct http requests to the appropriate server. It is recommended to install Apache Web Server on a separate box.

Notes:

- Beginning in Release 8.1.2, a second Apache instance is not required on the XML Generator server (local files are no longer produced). You can install a single Apache instance on a standalone server that points to the Advisor IP addresses and ports.
- Beginning in Release 8.1.5, in an FA distributed mode configuration, the Apache HTTP configuration can be configured on any FA instance.

Start of procedure

1. To enable Apache Web Server serving different modules in the Advisors Browser (for example, Administration, Contact Center Advisor, Workforce Advisor), edit the `httpd.conf` file located in the `conf` folder of the Apache Web Server installation as outlined below.
 - a. Locate the following lines in the `httpd.conf` file:
 - `#LoadModule headers_module modules/mod_headers.so`
 - `#LoadModule proxy_module modules/mod_proxy.so`
 - `#LoadModule proxy_ajp_module modules/mod_proxy_ajp.so`
 - `#LoadModule proxy_http_module modules/mod_proxy_http.so`
 - b. Remove the hash mark (`#`) from the beginning of each line, so that these four lines appear like this:
 - `LoadModule headers_module modules/mod_headers.so`
 - `LoadModule proxy_module modules/mod_proxy.so`
 - `LoadModule proxy_ajp_module modules/mod_proxy_ajp.so`
 - `LoadModule proxy_http_module modules/mod_proxy_http.so`
 - c. Locate the following entry and add a `#` to comment out `Deny from all` and to add `Allow from all`:


```
<Directory />
Options FollowSymLinks
AllowOverride None
Order deny,allow
#Deny from all
```

```

    Allow from all
    Satisfy all
</Directory>

```

- d. Locate the following entry near line 133 and add a # to comment it out:

```
#ServerAdmin
```

- e. Add the following line:

```
ProxyRequests Off
```

- f. Add the following lines to the bottom of the file and change the IP addresses or host names, as necessary – the format of this Guide can cause lines to wrap, but it is very important that each entry is on a single line in your httpd.conf file:

```

# Platform and Advisors Modules
ProxyPass /am/ ajp://192.168.40.234:8009/am/
ProxyPass /admin/ ajp://192.168.40.234:8009/admin/
ProxyPass /am-admin/ ajp://192.168.40.234:8009/am-admin/
ProxyPass /ca/ ajp://192.168.40.234:8009/ca/
ProxyPass /ca-ws/ ajp://192.168.40.234:8009/ca-ws/
ProxyPass /ea-ws/ ajp://192.168.40.234:8009/ea-ws/
ProxyPass /base-ws/ ajp://192.168.40.234:8009/base-ws/
ProxyPass /dashboard/ ajp://192.168.40.234:8009/dashboard/
ProxyPass /nav-service/ ajp://192.168.40.234:8009/nav-service/
ProxyPass /prefs-service/
ajp://192.168.40.234:8009/prefs-service/
ProxyPass /wu/ ajp://192.168.40.235:8009/wu/
ProxyPass /ca-xml/ ajp://192.168.40.234:8009/ca-xml/

```

Note: Remove, or comment out, the ProxyPass /admin/ ajp://192.168.40.234:8009/admin/ statement on FA presentation-only instances. If you use a load balancer, do not direct requests to the /admin/ context to FA presentation-only instances.

```

# Genesys Resource Management Console Web Application
ProxyPass /rmc/ ajp://192.168.40.235:8009/rmc/

```

```

# Genesys Adapter Admin Web Application
ProxyPass /gc-admin/ ajp://192.168.40.235:8009/gc-admin/

```

```

# FA
ProxyPass /fa/ ajp://192.168.40.234:8009/fa/

```

```
# Contact Center Advisor Mobile Edition
```

```
ProxyPass /ma/ ajp://HOSTNAME:8009/ma/
```

Note: If you need to access external applications through the Genesys Browser, you should have lines for each of those applications.

For example:

```
ProxyPass /APEX/  
http://www.cra-arc.gc.ca/formspubs/menu-eng.html
```

The format of this Guide can cause lines to wrap, but it is very important that each entry is on a single line in your `httpd.conf` file.

You can comment out or exclude lines to proxy passes that are not installed.

Note: The trailing slash must appear at the end of the line. If it is omitted, users might see 404 or Not Found error, or simply get no response when clicking, or see empty white screens in the Advisor browser. Errors can typically be seen in the Geronimo log if DEBUG is enabled.

The solution is to fix the `httpd.conf` and restart Apache.

Example:

```
ProxyPass /gc-admin/ ajp://server:8009/gc-admin
```

would generate an error.

2. Copy the contents of the `baseweb-<version>-static-web.zip` from the Advisors Platform distribution (the directories within the `static-web-content`) into the Apache `htdocs` directory.

End of procedure

Configuring Apache to Support HTTPS

To configure Apache to support HTTPS you must:

1. Generate the SSL security certificate and private key.
2. Reconfigure Apache.

Procedure: Generating the SSL security certificate and private key

Start of procedure

1. If not already installed, download and install the C++ redistributables from the official Microsoft downloads site.
2. If not already installed, download and install OpenSSL from an official SSL download site.
3. Add the OpenSSL bin directory (by default C:\OpenSSL-Win32\bin) to your Windows PATH.
4. From the Start menu, enter Run > mmc.
5. From the File menu select Add/Remove Snap-In.
6. Execute the following: Add > Certificates > Add > Computer Account > Local Computer
7. Expand Console Root > Certificates > Personal > Certificates.
8. Right-click > All Tasks > Export.
9. Select Yes to export the private key.
10. Deselect Enable strong protection.
11. Extract the certificate and key using the following command from the directory where the certificate was exported:

```
openssl pkcs12 -in inf-koi.pfx -out inf-koi.crt -nodes
```

End of procedure

Procedure: Reconfiguring Apache to support HTTPS

Start of procedure

1. Copy the certificate/key (inf-koy.crt) to the Apache conf directory (by default C:\Program Files\Apache Software Foundation\Apache2.2\conf).
2. Edit {Apache conf}\httpd.conf.
3. Uncomment LoadModule ssl_module modules/mod_ssl.so (line 120).
4. Uncomment Include conf/extra/httpd-ssl.conf (line 474).
5. Comment out Listen 80 (line 46).
6. Edit {Apache conf}\extra\httpd-ssl.conf and point SSLCertificateFile and SSLCertificateKeyFile to the certificate.
7. Restart Apache.

8. Verify the configuration by browsing to `https://inf-koi`. This will require accepting a certificate warning unless the client has added the server's certificate.

End of procedure

Latency Getting to the Login page

Consider raising the `ThreadsPerChild` setting to `1024` if Apache log files on the Web server show:

- `[warn] Server ran out of threads to serve requests.`
Consider raising the `ThreadsPerChild` setting
- `[notice] Child 5068: All worker threads have exited.`
- `[notice] Child 5068: Child process is exiting`



Chapter

7

Deploying Genesys Adapter

This chapter describes how to install and configure the Genesys Adapter. It contains the following sections:

- [Prerequisites, page 153](#)
- [Installation Overview, page 154](#)
- [Deploying Genesys Adapter Manually, page 157](#)
- [Recreating the AGA metrics schema for Release 8.1.5, page 158](#)
- [Changing Memory Allocations, page 159](#)
- [Deploying the Adapter Core Service Component, page 160](#)
- [Deploying the SDS Service, page 208](#)
- [Deploying Resource Management Console, page 217](#)
- [Deploying Multiple Instances of the Genesys Adapter Core Service, page 222](#)
- [Updating AGA Properties in the Database, page 223](#)
- [Adding Additional Stat Servers After Installation, page 224](#)
- [Troubleshooting Installation Errors, page 226](#)

Prerequisites

See “Deployment Prerequisites” on [page 25](#).

Before deploying Genesys Adapter, you must have created a Genesys Adapter database. You need to install separate adapter databases for CCAdv and FA if both are to be installed.

To do this, please see either:

- Chapter 2, “Creating a SQL Server Database,” on [page 77](#), or;
- Chapter 3, “Creating an Oracle 11g Database,” on [page 93](#).

A verified Genesys environment must be ready and available. Credentials with read access to the HDS and AW databases must be available when the Advisors Genesys Adapter Installer is run.

All the Stat Server configurations need to be updated with the `statserverEntries.cfg` options file supplied with Genesys Adapter.

Alternatively, review the `statserverEntries.cfg` file and manually update the Stat Server options with options recommended in the file.

If you are migrating to a new software release, rather than installing Advisors Genesys Adapter (AGA) for the first time, there is an existing AGA entry in the `Adapter_Instances` table in the Platform database. You have two options when upgrading your AGA instance:

1. Install the new AGA instance with a different adapter name; it is added as a second adapter in the Platform database. Manually remove the previous adapter entry from the Platform database.
2. Install the new AGA instance with the same adapter name as the previous instance. The previous adapter is updated to the new release; a new entry is added to the Platform database table. For this option, you must have information about the earlier adapter to ensure you overwrite it successfully: name, host, and port number. Ensure you enter that information on the Register Adapter installation screen to match the previous entry exactly.

Installation Overview

Note: Please read “Data Manager” on [page 50](#) before installing Genesys Adapter.

Dependencies and Notes

Dependencies

- If the T-Server is the Avaya Communication Manager, make sure that the T-Server option `query-agent-work-mode` is set to `on-restart`. This is the default option. To set this option, go to TServer, then Option Tab, then T-Server Option and locate `query-agent-work-mode`. This setting is required for the `AfterCallWork` state changes to be visible.
- Genesys Adapter 8.x requires Genesys Statistics Server 8.0.000.40 and the MCR extension package. Genesys Adapter supports Stat Server 8.1. If 8.1 Stat Servers are used, then the minimum supported version is 8.1.000.22. For Releases 8.1.3 to 8.1.5, Genesys recommends you use version 8.1.000.28.

- Optionally, to support the third-party media statistics in Release 8.1.3 and later, the third-party media Stat Server extensions are required.

Procedure: Deploying Stat Server and MCR extensions

Prerequisites

- Stat Server Java extensions require Java 1.5.

Note: MCR extensions are needed only if Interaction Queue statistics are to be collected.

Start of procedure

1. Install Stat Server.
2. Install the MCR extension package. The MCR version corresponding to the most recent GA Stat server version can be obtained from the Genesys installation CD image.
3. Configure the JVM path options for the Stat Server in Configuration Manager using the Stat Server application Options tab. If you require more information about Stat Server configuration than is provided below, see *Framework 8.0 Stat Server Deployment Guide*.
 - g. Configure Stat Server Java options, such as [java-config], [java-options] and [java-extensions].
 - h. Set the JVM Path to the jvm.dll file (for example: C:\Program Files\Java\jre5\bin\client\jvm.dll).
 - i. Set the ext directory to the relative path of the extensions directory under the Stat Server installation (the default is ./java/ext).
 - j. Set the lib directory to the relative path of the library directory under the Stat Server installation (the default is ./java/lib).
 - k. Select the eServiceContactStat.jar and eServiceInteractionStat.jar Java Extension jars to be loaded.
4. Ensure that the Stat Server has a connection to the Interaction Server. Double-click the Stat Server application, and add this connection on the Connections tab if it is not already present.
5. Under the Stat Server application Options table, set enable-java to true.
6. Under the Stat Server application Options tab, create a new section named common. Set the value of option rebind-delay to 0 (zero). If you previously loaded the statserverentries.cfg file (see “Prerequisites” on [page 153](#)), this option is already there. Ensure you verify it is correct.

7. Ensure that the corresponding connection from the Interaction Server back to the Stat Server is also present. Double-click the `Interaction Server Application`, and add the connection on the `Connections` tab if it is not already present.
8. Restart both the Interaction Server and the Stat Server.

End of procedure

Additional Notes

- There are no filters included with the installation of AGA. In releases prior to 8.1.5, configure the required filters through the Configuration Manager on the `Options` tab of the Stat Server(s) that the Adapter is going to use. A sample format for these filters is:

Name: `Informiam.Regular`

Value: `PairExists("AppCallType", "Reg")`

Filters are only required if the customer's Genesys routing uses them, in which case all filters must be present in each Stat Server connected to the AGA. AGA only loads filters that appear on all of its associated Stat Servers.

If there are any changes made to the filters stored in Configuration Server, after starting AGA, those changes will not be reflected until the next overnight full re-issue of statistics.

Note: In Release 8.1.5, you configure filters as business attributes. For more information, see “Data Manager” on [page 50](#).

- Before Genesys Adapter will report metrics back to Contact Center Advisor, objects must be selected. For releases 8.1.2 to 8.1.4, refer to the procedure “Editing the associations” in the *Performance Management Advisors 8.1 Contact Center Advisor & Workforce Advisor Administration User's Guide*, which can be accessed via the Help button at the top right of the screen within the `Administration` tab of the application. For release 8.1.5, see “Data Manager” on [page 50](#).

Support for LoggedIn Scripts

In releases prior to 8.0, the Genesys Adapter was aware of the virtual agent group (VAG) membership only when the VAG script was based on agent skills—for example, skills-based VAGs. In this case, the Configuration Server is aware of the agents who are part of the virtual agent group, and the Genesys Adapter obtains this membership information from the Configuration Server.

In release 8.x, the Adapter has been enhanced so that agent group membership information for VAGs that are defined using the `LoggedIn` script is retrieved from the Stat Server, rather than from the Configuration Server.

Deploying Genesys Adapter Manually

This section describes manual installation steps for Genesys Adapter.

Procedure: Deploying Genesys Adapter manually

Prerequisites

- See “Deployment Prerequisites” on [page 25](#).

Start of procedure

1. Verify the Genesys environment.

Verify that a Genesys Platform environment is ready and available. This includes (but is not limited to) Configuration Server, Stat Server, and the T-Server(s) and/or Interaction Servers. All of these services must be running prior to deploying the Genesys Adapter.

Genesys Adapter 8.x requires Genesys Statistics Server 8.0, as well as some extensions. See “Deploying the Adapter Core Service Component” on [page 160](#).

2. Create the Genesys Adapter database. See either:
 - Chapter 2, “Creating a SQL Server Database,” on [page 77](#), or;
 - Chapter 3, “Creating an Oracle 11g Database,” on [page 93](#).

Note: Genesys recommends that you create separate Genesys Adapter databases for CCAdv and FA.

3. Locate the build files. Unzip the files into a temporary directory. The following files should be present:
 - `aga-installer-<version>.jar`
 - MS SQL
 - `gc_core_newdb-<current version>.sql` (included with releases prior to 8.1.5 only)
 - `gc_core_migrate-<starting version>_<current version #>.sql` (included with releases prior to 8.1.5 only)
 - `gc_metrics_newdb-<current version>.sql`
 - `GeneratePermsStatements.sql`

- Oracle
 - gc_cfg_new_DDL_<version>.sql (included with releases prior to 8.1.5 only)
 - gc_cfg_new_Schema_<version>.sql (included with releases prior to 8.1.5 only)
 - gc_cfg_new_TBS_<version>.sql (included with releases prior to 8.1.5 only)
 - gc_metrics_new_DDL_<version>.sql
 - gc_metrics_new_Schema_<version>.sql
 - gc_metrics_new_TBS_<version>.sql
4. If you intend to deploy the Resource Management module on a server other than your CCAdv/WA server, install an instance of the Platform Service on that server (see Chapter 6, “Deploying Advisors Platform,” on [page 117](#)).
Continue with this installation process after an instance of Platform is installed.
- Required for Release 8.1.5**
5. If you are installing Release 8.1.5, you must recreate the AGA metrics schema. See [“Recreating the AGA metrics schema for Release 8.1.5”](#).
- Required for Release 8.1.5**
6. 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.
 7. Install the Genesys Adapter Core Service. See “Deploying the Adapter Core Service Component” on [page 160](#).
 8. Optionally configure XMLGen. See “Deploying the XML Generator as a Service” on [page 301](#).
 9. Optionally, install the Resource Management Console (RMC) module. See “Deploying Resource Management Console” on [page 217](#). If you install RMC, you must install SDS also.
 10. If you have installed RMC, install the SDS service on a separate server from Genesys Adapter and the Resource Management module. See “Deploying the SDS Service” on [page 208](#).

End of procedure

Recreating the AGA metrics schema 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. For more information, see “Data Manager” on [page 50](#) and “Using the Object Migration Wizard to migrate AGA Configuration” on [page 405](#).

If you are migrating from the previous release of Advisors 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).

Procedure: Recreating the AGA Metrics Schema for Release 8.1.5

Start of procedure

1. Delete the AGA metrics database(s):
 - MSSQL:
`DROP DATABASE <metrics_database_name>`
 - ORACLE:
`DROP USER <metrics_database_user> CASCADE`
2. 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`
3. 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).

End of procedure

Changing Memory Allocations

If the log is reporting an out of memory error, set the heap size higher by editing the `<install dir>/conf/wrapper.conf` file. About a third down the file, change the following lines:

```
# Initial Java Heap Size (in MB)
wrapper.java.initmemory=128

# Maximum Java Heap Size (in MB)
wrapper.java.maxmemory=1024
to
# Initial Java Heap Size (in MB)
```

```
wrapper.java.initmemory=800
```

```
# Maximum Java Heap Size (in MB)
```

```
wrapper.java.maxmemory=1200
```

If the log is reporting a PermGen out of memory error, increase the permanent generation memory by editing the following line in the same file:

```
wrapper.java.additional.13=-XX:MaxPermSize=128m
```

to

```
wrapper.java.additional.13=-XX:MaxPermSize=256m
```

This increase in PermGen memory is normally required only when Genesys Adapter uses a 64-bit JVM. The most memory you can allocate to `wrapper.java.maxmemory` under 32-bit windows is 1600MB, but with 64-bit Windows much larger values can be used.

If the problem persists, experiment with higher values; however, the service may fail to start if it is unable to allocate all of the memory requested from the operating system. This will be noticeable if the server fails to start (reports an error during start). Turn various log settings to `DEBUG` in the `conf` file to help diagnose problems.

Deploying the Adapter Core Service Component

This section contains the following procedures:

- [Procedure: Deploying the Core Service component – 8.1.5](#)
- [Procedure: Deploying the Core Service component – 8.1.2 to 8.1.4](#)

Procedure: Deploying the Core Service component – 8.1.5

Prerequisites

- If you are migrating from the previous release of Advisors to release 8.1.5, you must use the release 8.1.5 metrics database creation script to recreate the AGA metrics schema before deploying the Advisors Genesys Adapter core service component. See [“Recreating the AGA metrics schema for Release 8.1.5”](#).

Start of procedure

1. Run the installation jar file by either:
 - Using the command `java -jar aga-installer-<version>.jar`; or,
 - Double-clicking the `aga-installer-<version>.jar` in the release bundle.

Notes: 1. Double-clicking may not work due to system settings, but using the command line terminal should always work.

2. For 64-bit systems, if double-clicking to launch the installer, please ensure that the Java instance associated with the `jar` file type is 64-bit. Running the installer with a 32-bit Java instance will create a Windows service with the wrong executable.



Figure 49: Installer for Genesys Adapter

2. Click Next. The Install Type screen displays ([Figure 50](#)).

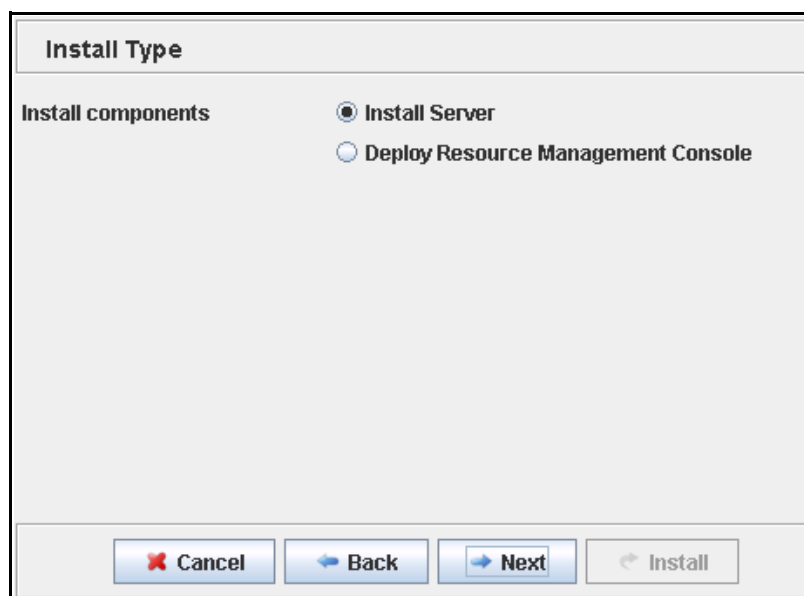


Figure 50: Install Type

3. To install the server, select **Install Server** and click **Next**. The **Server Install Type** screen displays.

If deploying the Resource Management Console, go to “Deploying Resource Management Console” on [page 217](#).

Note: You can only install a single component (either the core service, or RMC) during a single installer run.

[Figure 51](#) shows the **Server Install Type** screen.

Starting in Release 8.1.5, the AGA installer no longer auto-installs the service, although the option is checked. The option is grayed-out on the **Server Install Type** screen to indicate that it is disabled. After installation, you must install and start the service.

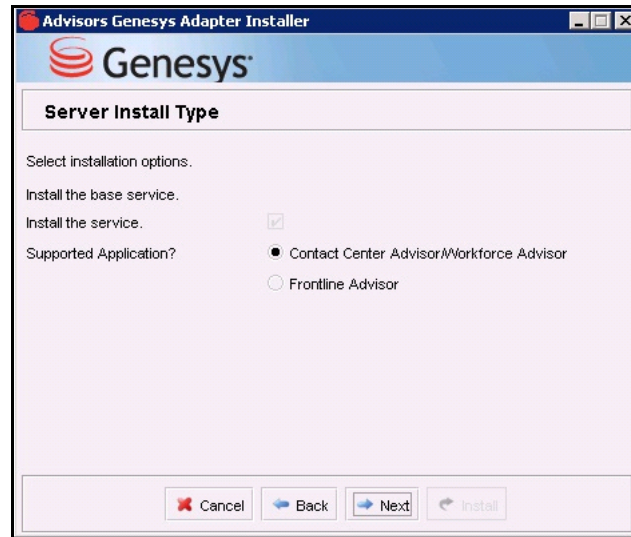


Figure 51: Server Install Type screen

4. Select whether you want this Adapter instance to serve Contact Center Advisor/Workforce Advisor (CCAdv/WA), Frontline Advisor (FA), or both. Serving both FA and CCAdv/WA is not recommended for performance reasons.
5. Click Next. The Installation Details screen displays.

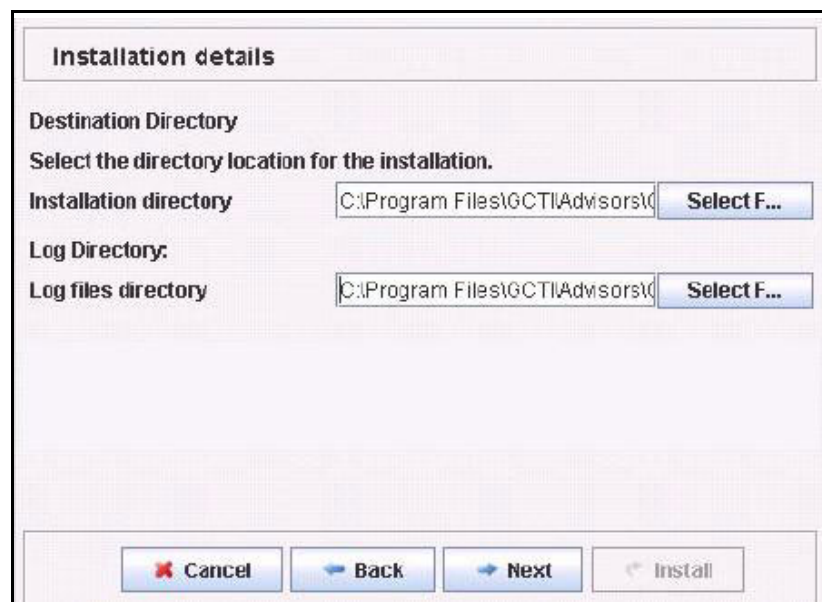


Figure 52: Installation Details

6. Specify the installation directory. The default installation directory is C:\Program Files\GCTI\Advisors\Genesys\Adapter.
7. Specify the directory in which the log files will appear.
8. Click Next. The Java Development Kit screen is displayed (Figure 53).

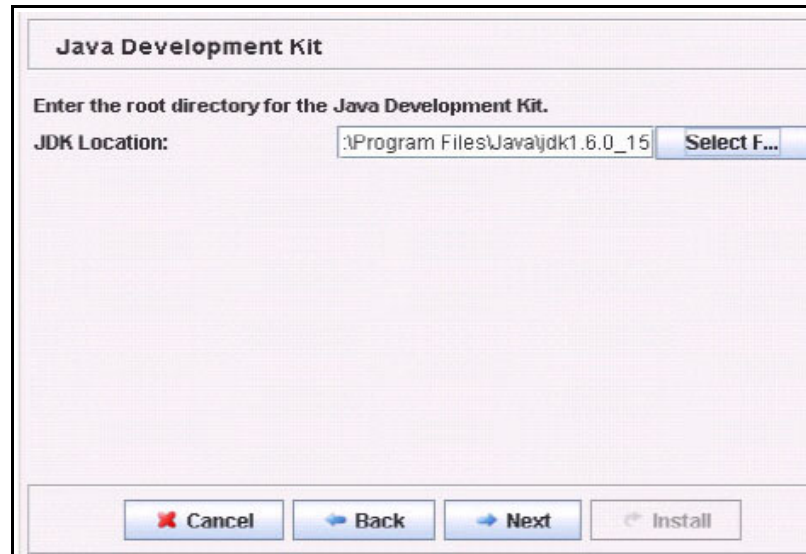


Figure 53: Java Development Kit Screen

9. Add the location of the root directory of the Java installation. Click Next. The Database Type screen displays.



Figure 54: Database Type Screen

10. Select the relevant database type and click Next. For Oracle, go to [Step 11](#). For SQL Server, go to [Step 13](#).
11. If the Oracle setup type screen is available in your Advisors Genesys Adapter installer (see [Figure 55](#)), select the Oracle setup option that describes your environment:

- Select the **Basic** option if you are using a single-instance Oracle database.
- Select the **RAC connectivity setup** option to connect to Oracle RAC.

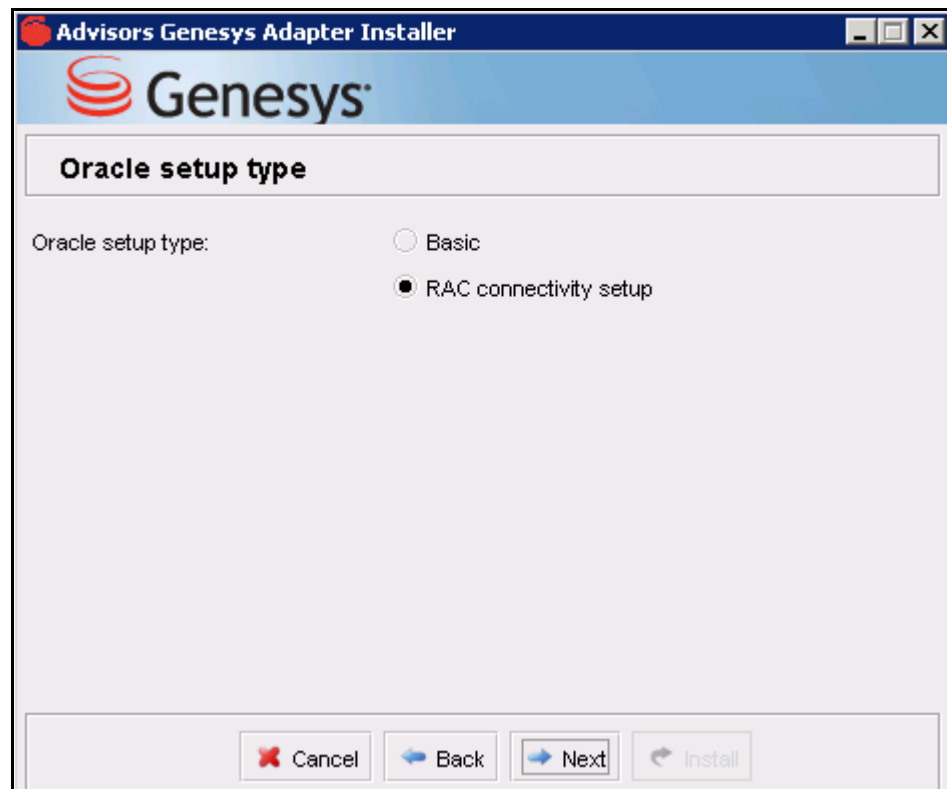


Figure 55: Advisors Genesys Adapter Oracle setup type screen

12. Locate the Oracle JDBC driver. Click **Next**.

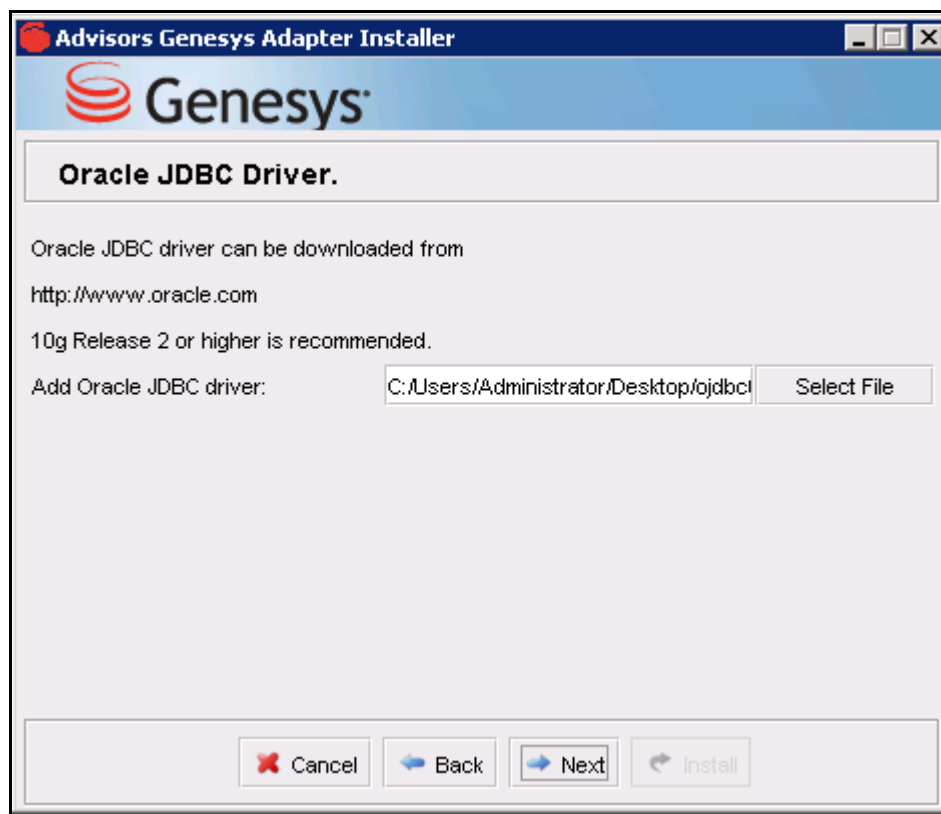


Figure 56: Oracle JDBC Driver Screen

Note: The following Oracle JDBC drivers can be used:

- Oracle database 10g release 2 (10.2.0.4). The download file is `ojdbc14.jar`.
- Oracle database 11g release 2 (11.2.0.2.0). The download file is `ojdbc6.jar`.

13. If this Adapter instance supports Contact Center Advisor (CCAdv), the CCAdv/WA Metrics Database Configuration screen displays.

If you selected the SQL Server or Basic Oracle database type, complete [Step 14](#) to [Step 16](#).

If you selected the Oracle RAC connectivity setup type, go to [Step 17](#).

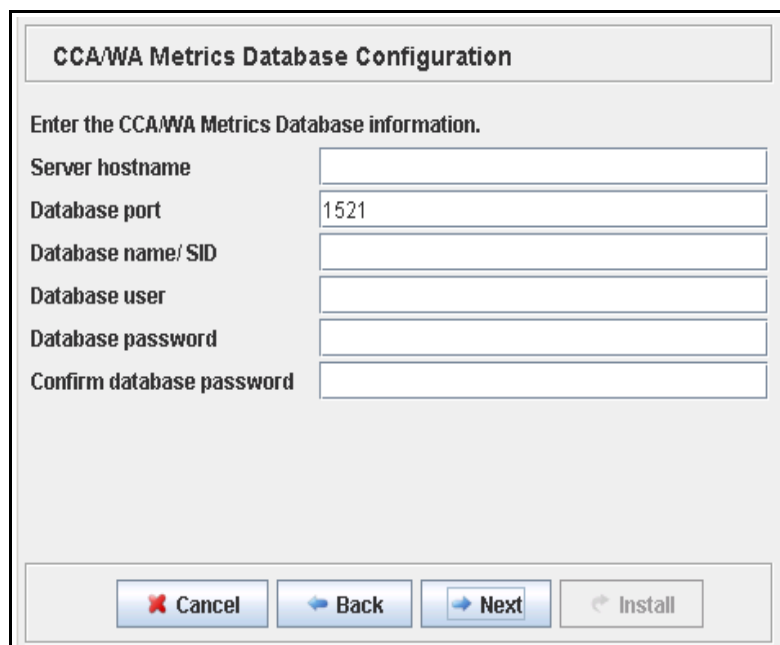


Figure 57: CCAdv/WA Metrics Database Configuration

14. Enter the host name or IP address of the machine where the CCAdv/WA metrics database is installed.

Note: When using numerical IPv6 addresses, please enclose the literal in brackets.

15. Enter the database name—for example, `advisors_gametricsdb`.
16. Enter the user name and password of a user that will be used by the Adapter to access the database.

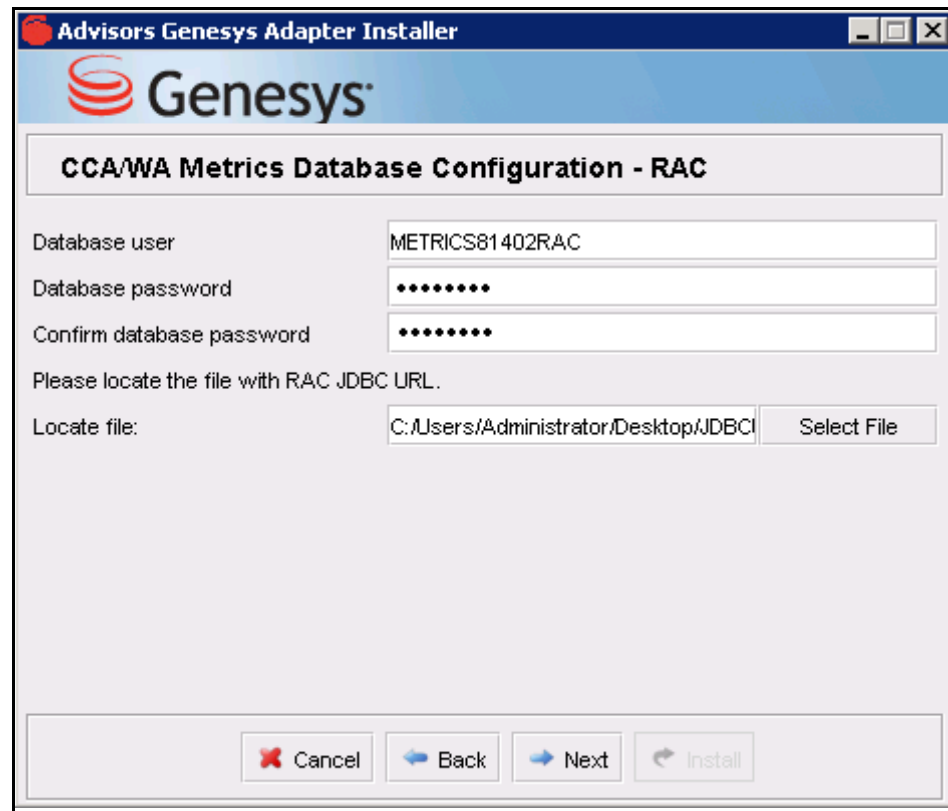
Note: The CCAdv/WA Metrics Database password is encrypted and saved in the `... \GCTI\Advisors\Genesys\Adapter\conf\inf_genesys_importer.properties` file by default. To change the password see “Changing Encrypted Passwords After Installation” on [page 145](#).

Go to [Step 18](#).

17. To configure Advisors Genesys Adapter to connect to Oracle Real Application Clusters (RAC), enter information in all text fields on the CCA/WA Metrics Database Configuration - RAC screen (see [Figure 58](#)).

Enter the user name and password of a user that will be used by the Adapter to access the database.

The installer applies the specified freeform JDBC URL when configuring the datasources. You should have the freeform JDBC URL in a text file. If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator.



The screenshot shows a Windows-style installer window titled "Advisors Genesys Adapter Installer". The window has a blue header bar with the Genesys logo. Below the header, the title bar of the main content area reads "CCA/WA Metrics Database Configuration - RAC". The form contains the following fields and controls:

- Database user:** A text box containing "METRICS81402RAC".
- Database password:** A text box with masked characters (dots).
- Confirm database password:** A text box with masked characters (dots).
- Please locate the file with RAC JDBC URL.** A label above the next field.
- Locate file:** A text box containing "C:/Users/Administrator/Desktop/JDBC" and a "Select File" button to its right.
- Navigation buttons:** At the bottom, there are four buttons: "Cancel" (with a red X icon), "Back" (with a left arrow icon), "Next" (with a right arrow icon), and "Install" (with a circular arrow icon).

Figure 58: CCA/WA Metrics Database Configuration screen for Oracle RAC

18. Click Next. The Platform Database Configuration screen displays. See [Figure 59](#).

Enter the Server, SID, Port, Schema, Password, and Confirm password data for the Platform database into which the adapter is to be registered. Click Next.

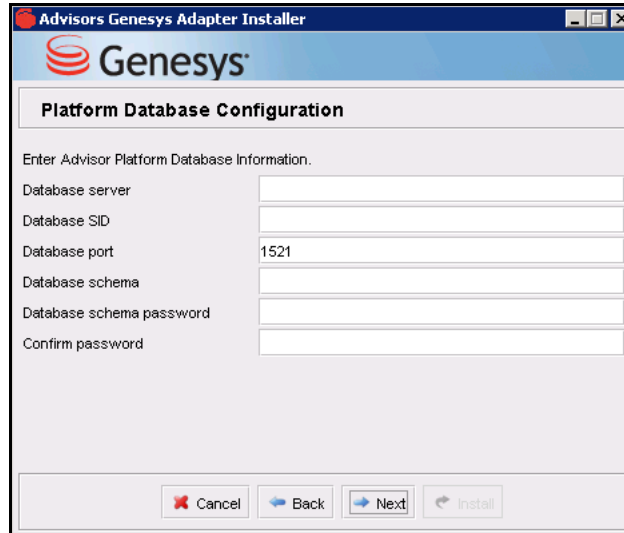


Figure 59: Platform Database Configuration

19. Click Next. The Genesys Data Source Configuration screen displays (see [Figure 60](#)).

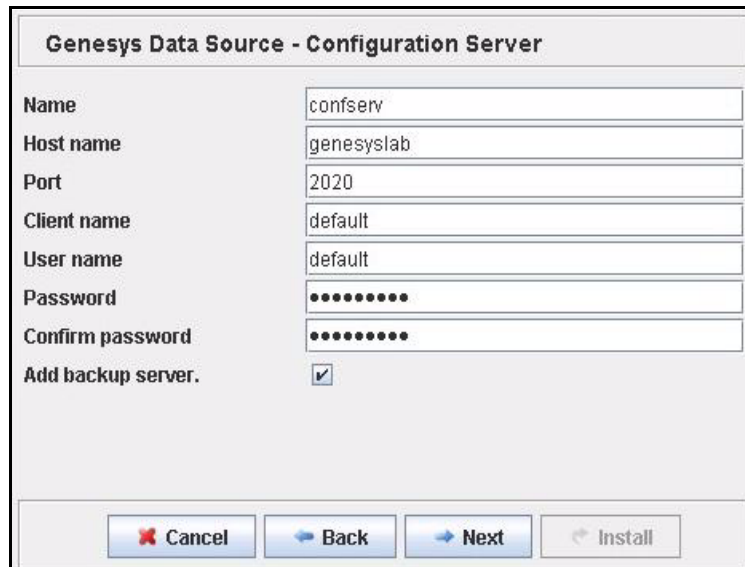


Figure 60: Genesys Data Source—Primary Configuration Server

20. Enter the information required for connecting to the primary (mandatory) Configuration Server in the Genesys environment.
 - Name—The name of the primary configuration server. The name is obtained from the Configuration Manager (CM) and is case sensitive.

- **Host Name**—The name or IP address of the machine hosting the Configuration Server.

Note: When using numerical IPv6 addresses, please enclose the literal in brackets.

- **Port**—The port that the configuration server is listening on.
- **Client Name**—Enter the login credentials of the user account assigned for use by the Genesys Adapter to access the Configuration Server.
- **User name**—The user name of the account the Adapter will use to connect to the Configuration Server.
- **Password**—The password of the account the Adapter will use to connect to the Configuration Server.

Note: The Genesys Configuration Server password is encrypted and saved in the `[adapterhome]\conf\inf_genesys_adapter.properties` file by default. To change the password see “Changing Encrypted Passwords After Installation” on [page 145](#).

- **Add backup server**—Optionally, select this checkbox to add and configure a backup Configuration Server.

Note: The backup Configuration Server can be, but does not need to be, configured in a high-availability pair in Genesys.

21. Click **Next**. If you opted to configure a backup Configuration Server, the configuration screen for the backup now displays.

Figure 61: Genesys Data Source—Backup Configuration Server

22. Enter the information required for connecting to the backup Configuration Server in the Genesys environment.

- Backup server name—The name of the backup configuration server. The name is obtained from the Configuration Manager (CM) and is case sensitive.
- Backup host—The name or IP address of the machine hosting the backup Configuration Server.

Note: When using numerical IPv6 addresses, please enclose the literal in brackets.

- Backup server port—The port that the backup Configuration Server is listening on.

23. Click Next. The Genesys Data Source Stat Server screen displays.

Figure 62: Genesys Data Source—Stat Server Configuration

24. Enter the information required for connecting to the first (mandatory) Stat Server in the Genesys environment.

For the first Stat Server:

- Name—The name of the Stat Server server. The name is obtained from the Configuration Manager and is case sensitive.
- Host Name—The name or IP address of the machine hosting the Stat Server.

Note: When using numerical IPv6 addresses, please enclose the literal in brackets.

- Port— The port that the Stat Server is listening on.

Optionally, specify the backup server parameters for the first Stat Server:

- **Backup server name**—Name of the backup Stat Server. This is obtained from the Configuration Manager.
- **Backup host**—Name or IP address of the machine hosting the backup Stat Server.

Note: When using numerical IPv6 addresses, please enclose the literal in brackets.

- **Backup server port**—The port on which the backup Stat Server listens.

To configure a second or subsequent Stat Server (or Stat Server pair), check the **Another Stat Server?** check box. Repeat this step for each Stat Server (pair) you want to add.

Note: Up to four additional Stat Server pairs can optionally be configured—that is, a total of 10 Stat Servers can be configured.

25. Specify the types of statistics supported on the Stat Server pair you are associating with this Genesys Adapter instance. The default is the **Core stats** type for the Stat Server pair if you do not make a selection from the options.

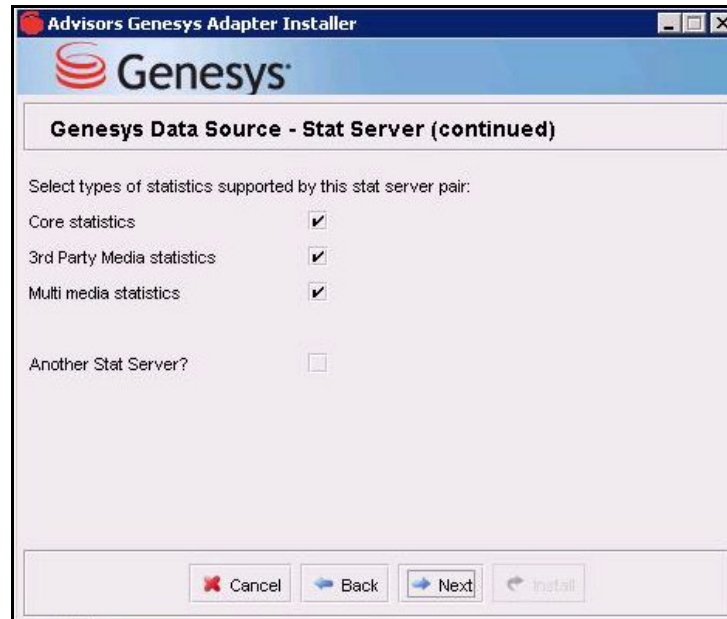


Figure 63: Selecting the statistics supported by the Stat Server pair

-
- Notes:**
1. After installation, the configuration option is unavailable in the Advisers user interface. If you require a change in the configuration after installation, you must update the Stat Server configuration table. If you make changes, you must restart the Genesys Adapter.
 2. The 3rd Party Media and Multimedia stats options require you to install the corresponding Java extensions on the Stat Servers. For more information, see “Configuring Virtual Queues for Voice and Non-Voice Statistics Requests” on [page 62](#).
-

26. Click Next.
27. Click Next. The Adapter Port and Registration Option screen displays. If you are using MS SQL Server or Oracle Basis, see [Figure 64](#), and proceed to the next Step.
If you are using Oracle RAC, go to [Step 30](#).

Figure 64: Adapter Port and Registration Option

28. Enter the port number on which the Genesys Adapter web services will run. You can use the default port, **7000**, if no other application is using that port.
29. Enter the Name, Host Address, Description for the adapter. Go to [Step 33](#).
30. If you are using an Oracle RAC database, see [Figure 65](#). Enter the port number on which the Genesys Adapter web services will run. You can use the default port, **7000**, if no other application is using that port.
31. Enter the Name, Host Address, Description for the adapter.
32. In the `Locate file` field, enter the location of the file that contains the RAC JDBC URL (you should have the freeform JDBC URL in a text file). If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator.

The screenshot shows the 'Advisors Genesys Adapter Installer' window. The title bar reads 'Advisors Genesys Adapter Installer'. The main header features the Genesys logo. Below the header, the title of the dialog is 'Enter Advisor Platform Database Information for Adapter Re...'. The form contains the following fields and controls:

- 'Database schema' with the text 'PLTDB' entered.
- 'Database schema password' with masked characters (dots).
- 'Confirm password' with masked characters (dots).
- A text prompt: 'Please locate the file with RAC JDBC URL.'
- 'Locate file:' with a text box containing 'C:/Users/Administrator/Desktop/JDBC' and a 'Select File' button.
- At the bottom, four buttons: 'Cancel' (with a red X icon), 'Back' (with a left arrow icon), 'Next' (with a right arrow icon), and 'Install' (with a circular arrow icon).

Figure 65: Register Adapter Screen – Oracle RAC

33. Click Next.
34. The Installation Progress screen displays (Figure 66).

The screenshot shows the 'Installation Progress' screen. The title bar reads 'Installation Progress'. The main area contains a 'Show Details' button (with a green checkmark icon) and the text 'Click Install to continue'. At the bottom, four buttons are visible: 'Cancel' (with a red X icon), 'Back' (with a left arrow icon), 'Next' (with a right arrow icon), and 'Install' (with a circular arrow icon).

Figure 66: Installation Progress

35. Click **Show Details** then click **Install** and verify that there are no errors during installation.
36. For every Stat Server that you specified above (primary and backup), open the Stat Server configuration through the Configuration Manager and import the Advisor metrics on the **Options** tab. The metrics are stored in a file named `StatServerEntries.cfg`, and the file is located in `C:\Program Files\GCTI\advisors\Genesys\Adapter\CONF` (or wherever you selected to install the Genesys Adapter).

This configuration file also contains settings for the Stat Server logging. The location of the log file can be changed by changing the following options in the Stat Server **Options** tab under the **Log** section:

```
all=statserver.log
standard=statserver.log
```

End of procedure

Periodic Statistics Reissue Scheduling screen

In Release 8.1.5 and later, the **Periodic Statistics Reissue Scheduling** screen is no longer included in the Genesys Adapter installer. Starting in Release 8.1.5, you use the Platform installation `conf/AdvisorsGenesysAdapter.properties` file to configure the schedule for the overnight reissue of statistics. The property to configure in the file is:

```
periodicResetJob.cronExpression=0 0 2 * * ?
```

The default value is 2 AM refresh.

Procedure: Deploying the Core Service component – 8.1.2 to 8.1.4

Prerequisites

- If you plan to connect to the Configuration Server using TLS, you must first do the following:
 - Configure a secure port for Genesys Configuration Server. For more information, see *Genesys 8.1 Security Deployment Guide*.
 - Configure security certificates.
 - Configure the security providers and issue security certificates. For more information, see [Genesys 8.1 Platform SDK Developer's Guide](#).
 - Assign a certificate to the Configuration Server host in Configuration Manager. For more information, see *Genesys 8.1 Security Deployment Guide*.

Start of procedure

1. Run the installation jar file by either;
 - Using the command `java -jar aga-installer-<version>.jar`; or,

- Double-clicking the `aga-installer-<version>.jar` in the release bundle.

Notes:

1. Double-clicking may not work due to system settings, but using the command line terminal should always work.
2. For 64-bit systems, if double-clicking to launch the installer, please ensure that the Java instance associated with the `jar` file type is 64-bit. Running the installer with a 32-bit Java instance will create a Windows service with the wrong executable.



Figure 67: Installer for Genesys Adapter

2. Click Next. The Install Type screen displays (Figure 68 on [page 178](#)).

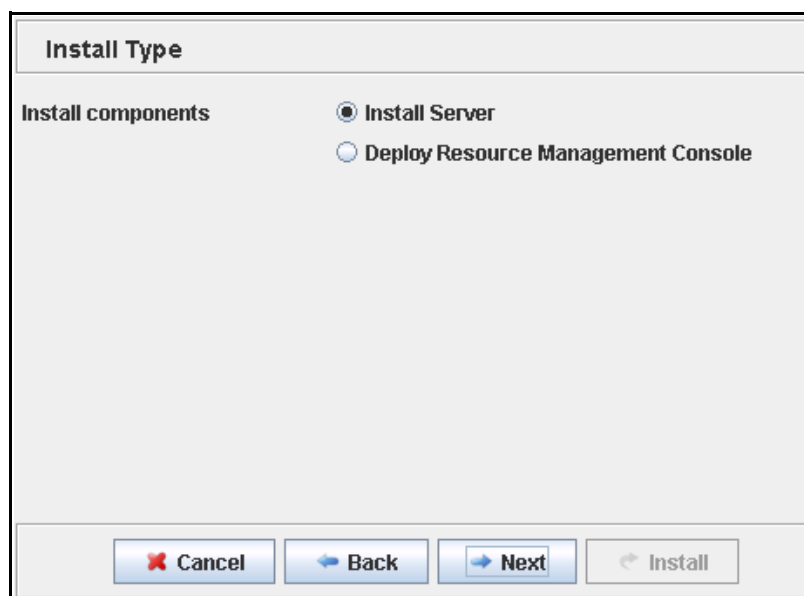


Figure 68: Install Type

3. To install the server, select **Install Server** and click **Next**. The **Server Install Type** screen displays.

If deploying the Resource Management Console, go to “Deploying Resource Management Console” on [page 217](#).

Note: You can only install a single component (either the core service, or RMC) during a single installer run.

[Figure 69](#) shows the **Server Install Type** screen for Release 8.1.2.

[Figure 70](#) shows the **Server Install Type** screen for Release 8.1.3 and 8.1.4.

In Releases 8.1.2 to 8.1.4, the AGA installer auto-installs the Windows service. You can select the option to start the service automatically after installation completes.

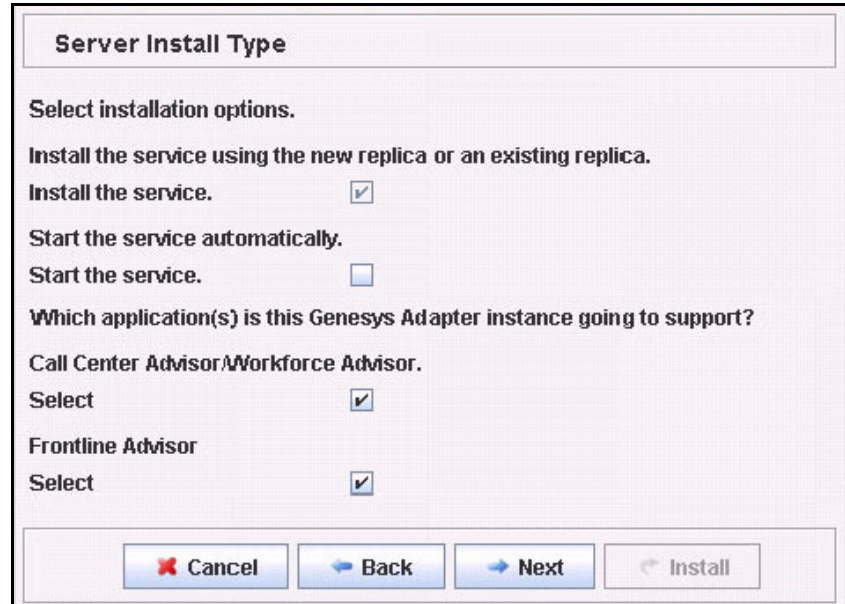


Figure 69: Release 8.1.2 Server Install Type screen

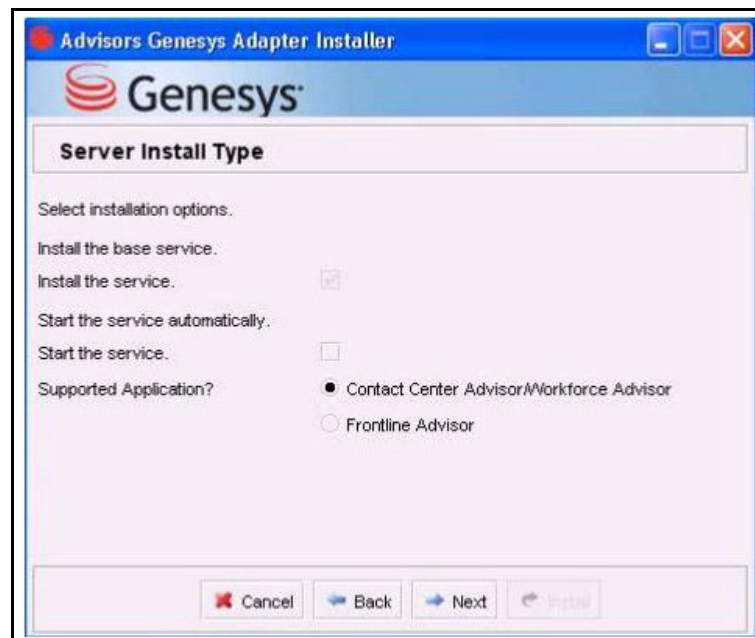


Figure 70: Release 8.1.3 Server Install Type screen

4. Select whether you want this Adapter instance to serve Contact Center Advisor/Workforce Advisor (CCAdv/WA), Frontline Advisor (FA), or both. Serving both FA and CCAdv/WA is not recommended for performance reasons.
5. Click Next. The Installation Details screen displays.

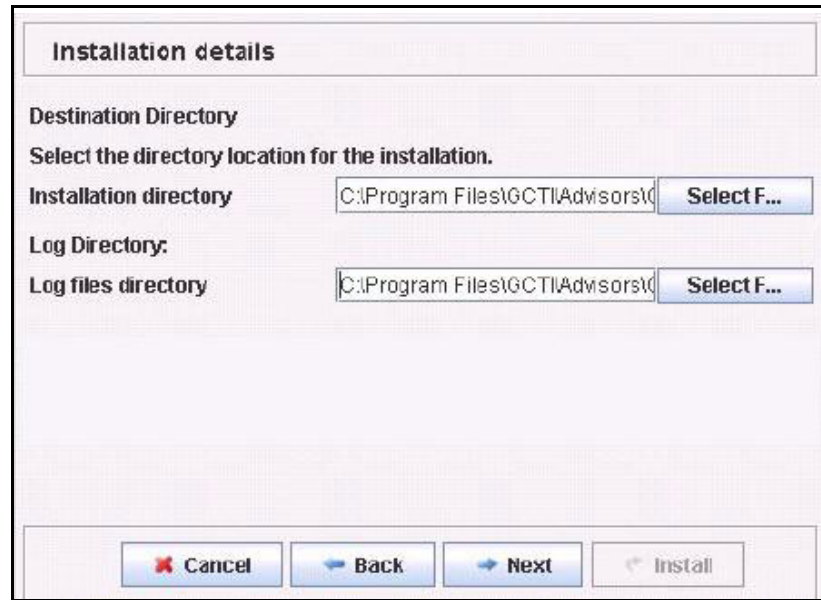


Figure 71: Installation Details

6. Specify the installation directory. The default installation directory is `C:\Program Files\GCTI\Advisors\Genesys\Adapter`.
7. Specify the directory in which the log files will appear.
8. Click Next. The Java Development Kit screen is displayed (Figure 72 on [page 180](#)).



Figure 72: Java Development Kit Screen

9. Add the location of the root directory of the Java installation. Click Next. The Database Type screen displays.

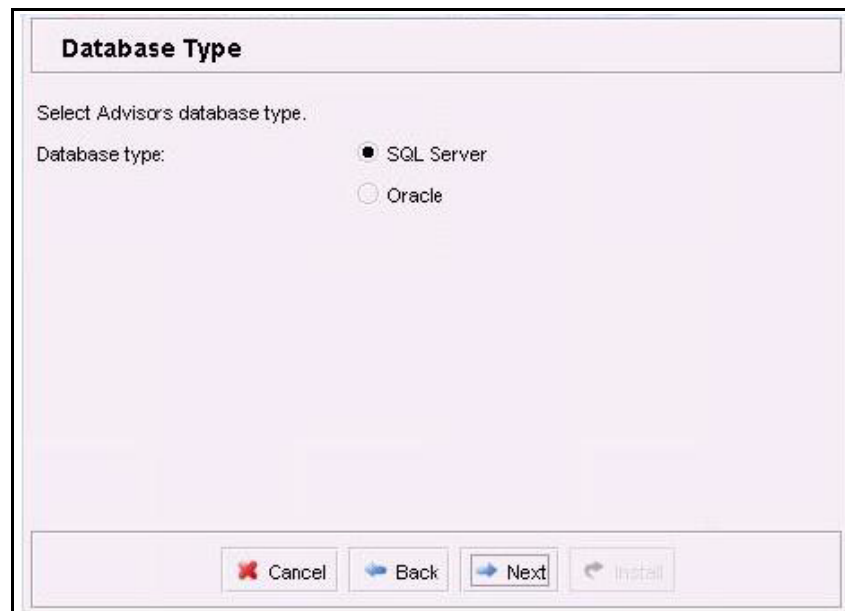


Figure 73: Database Type Screen

10. Select the relevant database type and click Next. For Oracle, go to [Step 11](#). For SQL Server, go to [Step 13](#).
11. If the `Oracle setup type` screen is available in your Advisors Genesys Adapter installer (see [Figure 74](#)), select the Oracle setup option that describes your environment:
 - Select the `Basic` option if you are using a single-instance Oracle database.
 - Select the `RAC connectivity setup` option to connect to Oracle RAC.

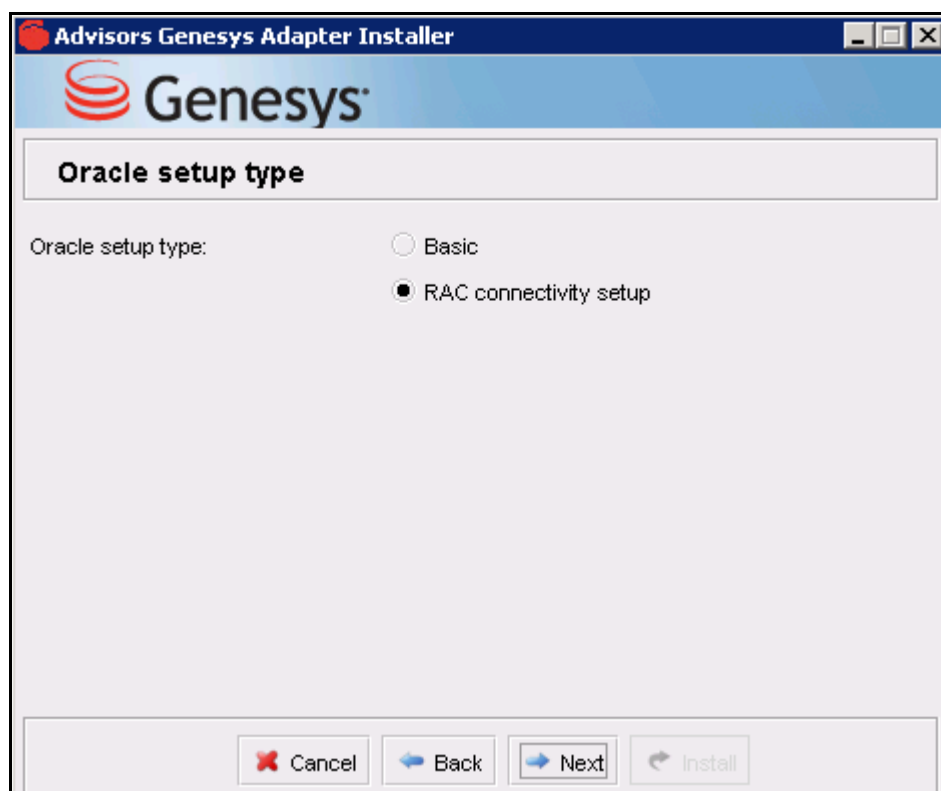


Figure 74: Advisors Genesys Adapter Oracle setup type screen

12. Locate the Oracle JDBC driver. Click Next.

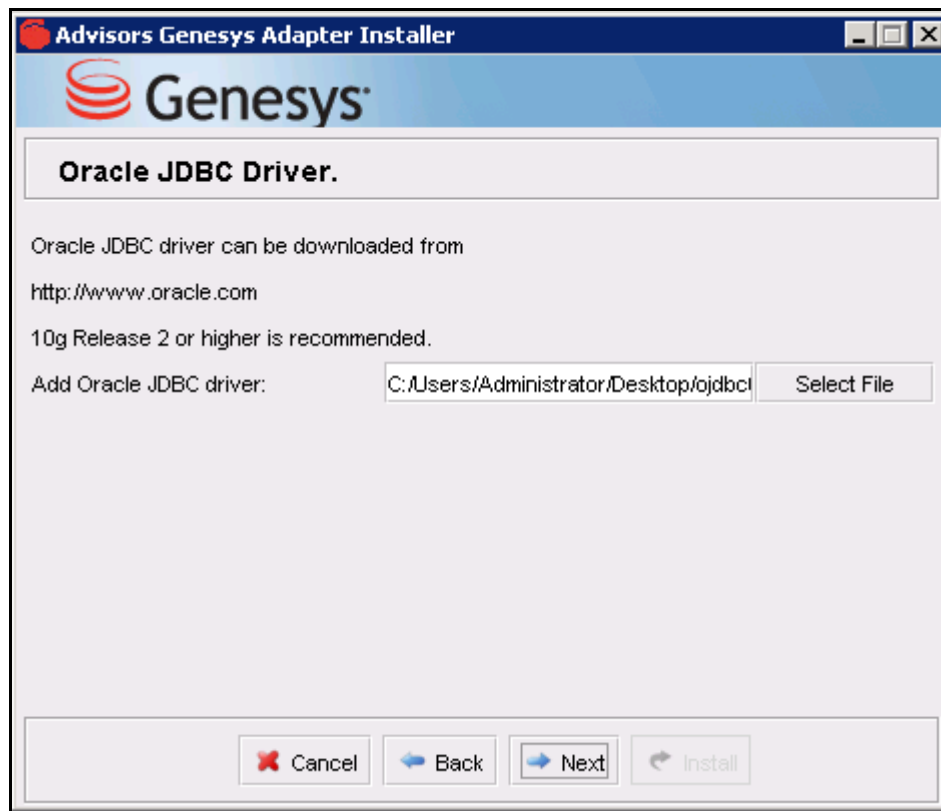


Figure 75: Oracle JDBC Driver Screen

Note: The following Oracle JDBC drivers can be used:

- Oracle database 10g release 2 (10.2.0.4). The download file is `ojdbc14.jar`.
 - Oracle database 11g release 2 (11.2.0.2.0). The download file is `ojdbc6.jar`.
-

13. If this Adapter instance supports Contact Center Advisor (CCAdv), the CCAdv/WA Metrics Database Configuration screen displays.

If you selected the SQL Server or Basic Oracle database type, complete [Step 14](#) to [Step 16](#).

If you selected the Oracle RAC connectivity setup type, go to [Step 17](#).

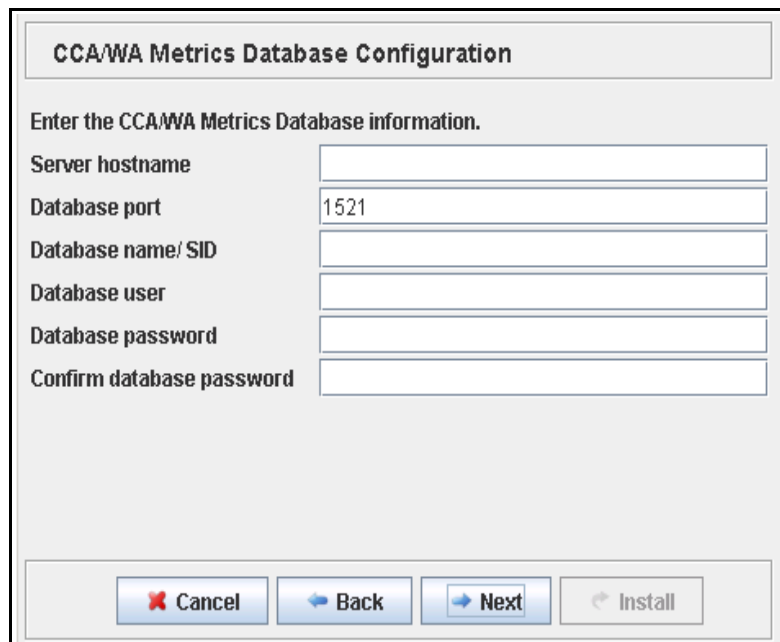


Figure 76: CCAdv/WA Metrics Database Configuration

14. Enter the host name or IP address of the machine where the CCAdv/WA metrics database is installed.

Note: When using numerical IPv6 addresses, please enclose the literal in brackets.

15. Enter the database name—for example, `advisors_gametricsdb`.
16. Enter the user name and password of a user that will be used by the Adapter to access the database.

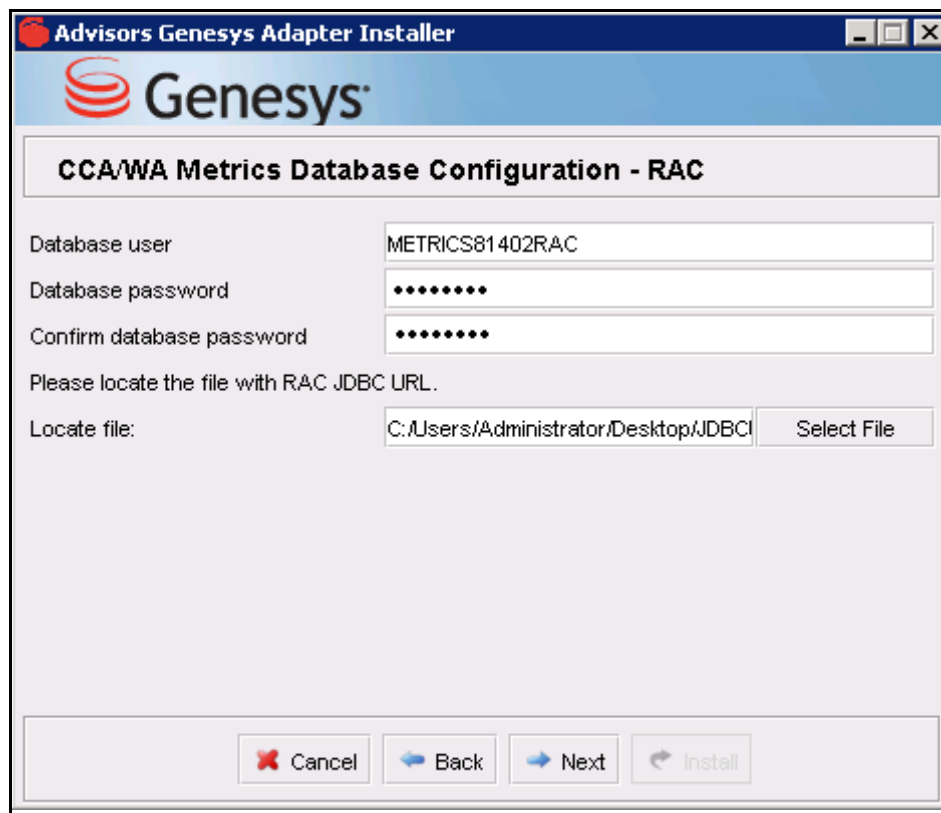
Note: The CCAdv/WA Metrics Database password is encrypted and saved in the `... \GCTI\Advisors\Genesys\Adapter\conf\inf_genesys_importer.properties` file by default. To change the password see “Changing Encrypted Passwords After Installation” on [page 145](#).

Go to [Step 18](#).

17. To configure Advisors Genesys Adapter to connect to Oracle Real Application Clusters (RAC), enter information in all text fields on the CCA/WA Metrics Database Configuration - RAC screen (see [Figure 77](#)).

Enter the user name and password of a user that will be used by the Adapter to access the database.

The installer applies the specified freeform JDBC URL when configuring the datasources. You should have the freeform JDBC URL in a text file. If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator.



The screenshot shows a Windows-style installer window titled "Advisors Genesys Adapter Installer". The window has a blue header bar with the Genesys logo. Below the header, the title bar of the main content area reads "CCA/WA Metrics Database Configuration - RAC". The form contains the following fields and controls:

- Database user:** A text box containing "METRICS81402RAC".
- Database password:** A text box with masked characters (dots).
- Confirm database password:** A text box with masked characters (dots).
- Please locate the file with RAC JDBC URL.** A label above the file selection controls.
- Locate file:** A text box containing "C:/Users/Administrator/Desktop/JDBC" and a "Select File" button.
- Navigation buttons:** At the bottom, there are four buttons: "Cancel" (with a red X icon), "Back" (with a left arrow icon), "Next" (with a right arrow icon), and "Install" (with a circular arrow icon).

Figure 77: CCA/WA Metrics Database Configuration screen for Oracle RAC

18. Click Next. If this Adapter instance supports Frontline Advisor, the FA Database Configuration screen displays. If you are using the SQL Server or Basic Oracle setup, see [Figure 78](#) and proceed to the next Step. If you are using the Oracle RAC setup, see [Figure 79](#) and go to [Step 22](#).

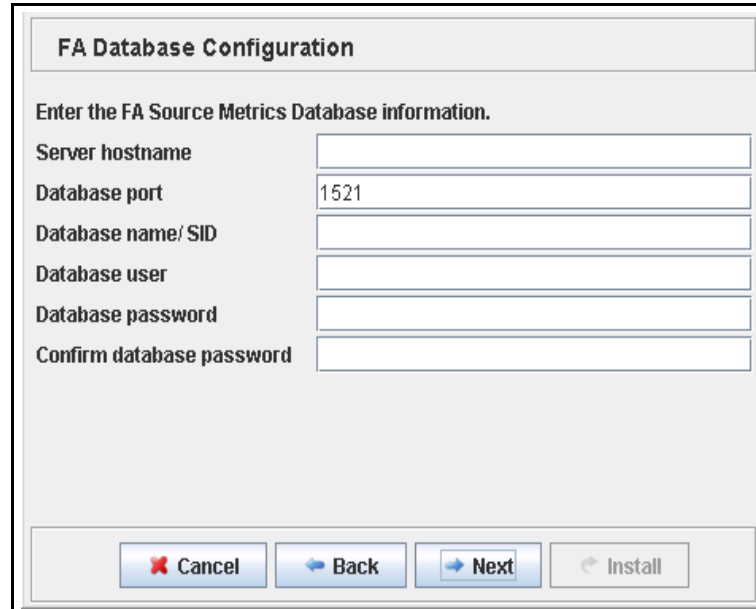
The image shows a 'FA Database Configuration' dialog box. It has a title bar with the text 'FA Database Configuration'. Below the title bar, there is a section with the text 'Enter the FA Source Metrics Database information.' followed by six input fields: 'Server hostname', 'Database port' (containing '1521'), 'Database name/ SID', 'Database user', 'Database password', and 'Confirm database password'. At the bottom of the dialog box, there are four buttons: 'Cancel' (with a red X icon), 'Back' (with a left arrow icon), 'Next' (with a right arrow icon), and 'Install' (with a circular arrow icon).

Figure 78: FA Database Configuration

19. Enter the host name or IP address of the machine where the FA Source Metrics database is installed.

Note: When using numerical IPv6 addresses, please enclose the literal in brackets.

20. Enter the database name—for example, `advisors_fadb`.
21. Enter the user name and password of a user that will be used by the connector to access the database.

Note: The FA Database password is encrypted and saved in the `...\GCTI\Advisors\Genesys\Adapter\conf\inf_genesys_importer.properties` file by default. To change the password see “Changing Encrypted Passwords After Installation” on [page 145](#).

Go to [Step 23](#).

22. To configure Advisors Genesys Adapter to connect to Oracle Real Application Clusters (RAC), enter information in all text fields on the FA Database Configuration - RAC screen (see [Figure 79](#)).

Enter the user name and password of a user that will be used by the Adapter to access the database.

The installer applies the specified freeform JDBC URL when configuring the datasources. You should have the freeform JDBC URL in a text file. If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator.

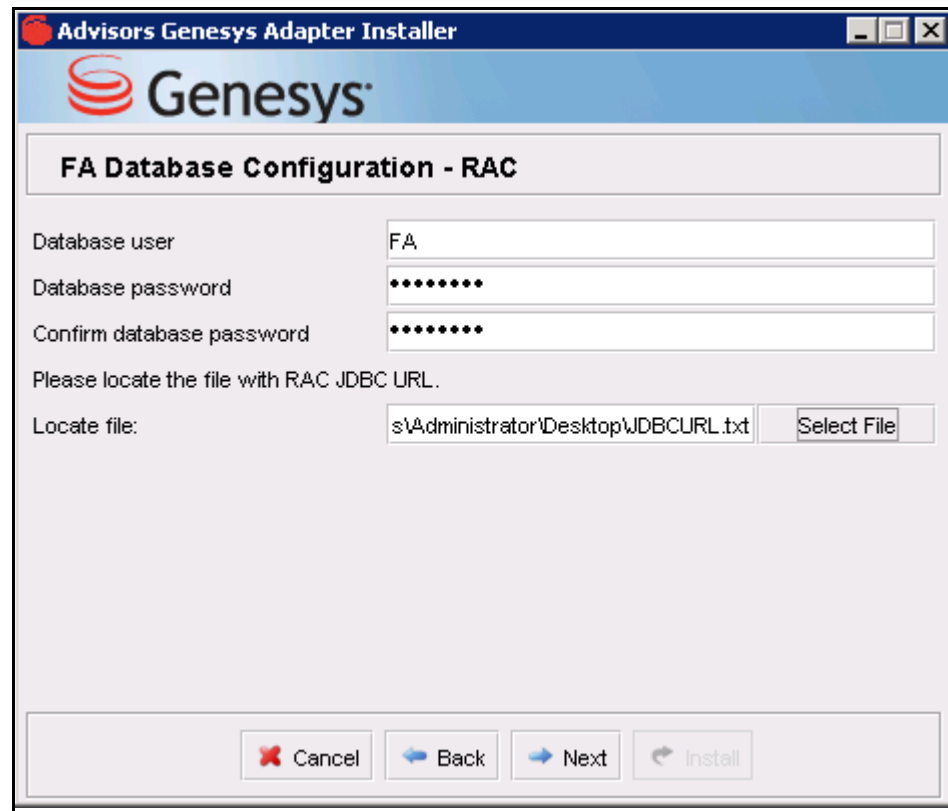


Figure 79: FA Database Configuration – RAC

23. Click Next. The Advisors Genesys Adapter Database Configuration screen is displayed if you are installing AGA release 8.1.2, 8.1.3, or 8.1.4.

If you are using the SQL Server or Basic Oracle setup, see [Figure 80](#) on [page 188](#) and proceed to the next Step.

If you are using the Oracle RAC setup, see [Figure 81](#) on [page 189](#) and go to [Step 26](#).

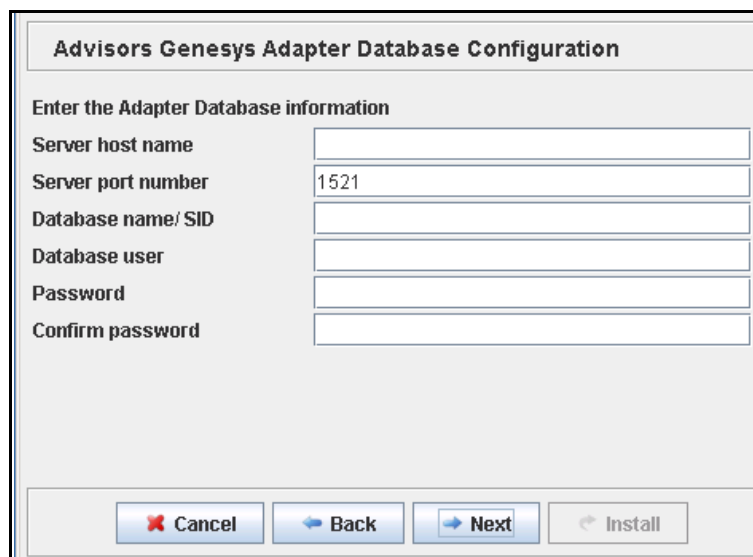


Figure 80: Adapter Database Configuration Screen – Basic Oracle setup

24. Enter the host name or IP address of the machine where the Genesys Adapter database is installed, along with the port number and database name—for example, `advisors_genadapter_fa` or `advisors_genadapter_ca`.

Note: When using numerical IPv6 addresses, please enclose the literal in brackets.

25. Enter the user name and password for the user that will be used by the Adapter to access the Genesys Adapter database. This should match the user created earlier.

Note: The Genesys Adapter Database password is encrypted and saved in the `[adapterhome]\conf\inf_genesys_adapter.properties` file by default. To change the password see “Changing Encrypted Passwords After Installation” on [page 145](#).

Go to [Step 27](#).

26. If you selected the Oracle RAC connectivity option, the Advisors Genesys Adapter database configuration screen for RAC connectivity displays. See [Figure 81](#).

The database user and password are the credentials that the Adapter uses to access the Genesys Adapter database. These should match the user that was created earlier.

In the `Locate file` field, enter the location of the file that contains the RAC JDBC URL (you should have the freeform JDBC URL in a text file). If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator.

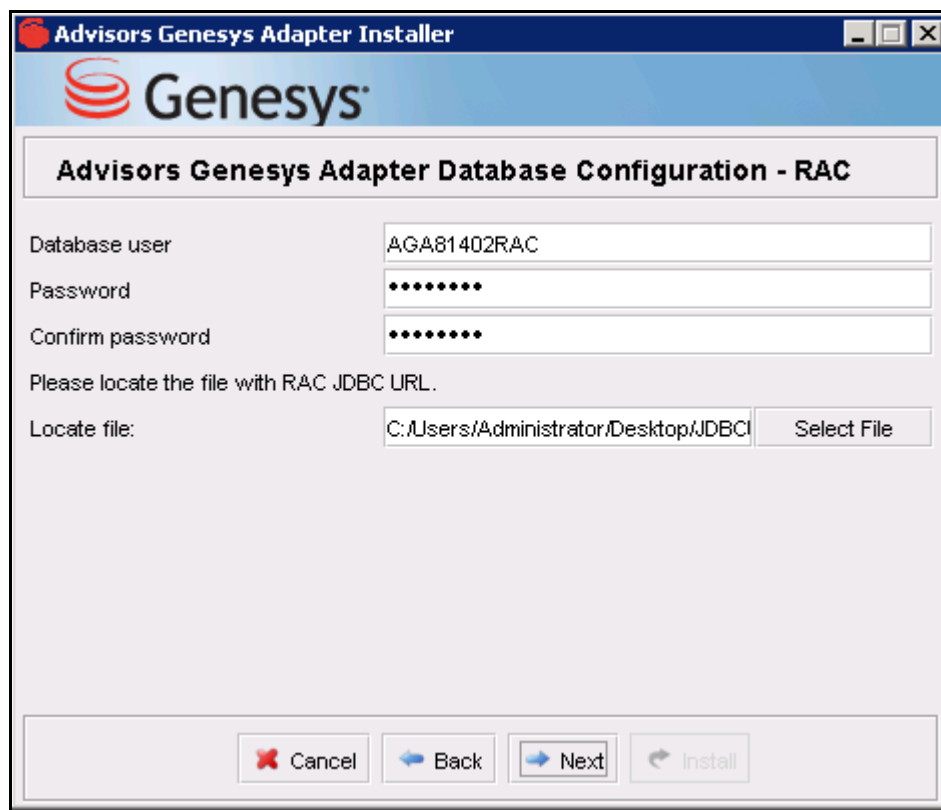


Figure 81: Adapter Database Configuration Screen – Oracle RAC setup

27. Click Next. The Genesys Data Source Configuration screen displays. Figure 82 on [page 190](#) shows the installer screen for releases that do not support a Transport Layer Security (TLS) connection. [Figure 83](#) shows the installer screen for releases that support a TLS connection.

To configure a TLS connection to the Configuration Server, you must select that option on the installation screen, enter the Configuration Server TLS port number, and identify the location of the TLS properties file. The TLS properties file contains all the properties required to connect successfully using TLS, as well as any other optional TLS attributes that you use.

Figure 82: Genesys Data Source—Primary Configuration Server installation screen

Figure 83: Genesys Data Source—Primary Configuration Server installation screen including TLS connection parameters

28. Enter the information required for connecting to the primary (mandatory) Configuration Server in the Genesys environment.
 - **Name**—The name of the primary configuration server. The name is obtained from the Configuration Manager (CM) and is case sensitive.
 - **Host Name**—The name or IP address of the machine hosting the Configuration Server.

Note: When using numerical IPv6 addresses, please enclose the literal in brackets.

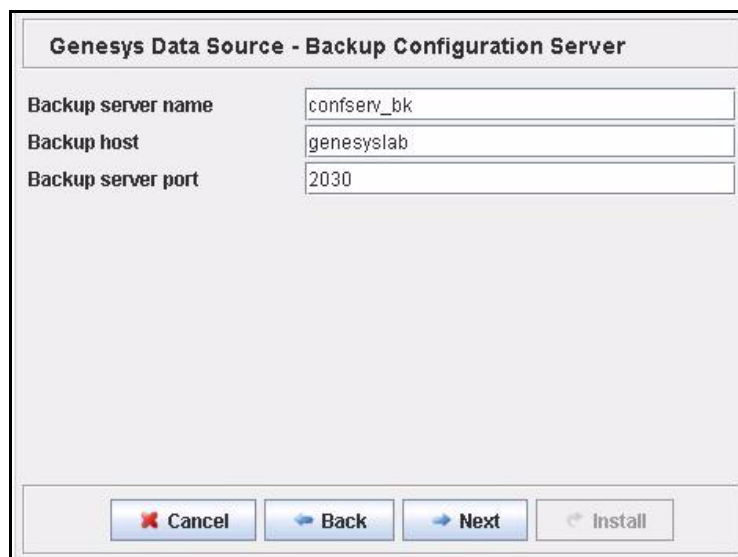
- **Port**—The port that the configuration server is listening on. If you enter a port number in this field, and then enable a TLS connection, this port number is ignored.
- **Client Name**—Enter the login credentials of the user account assigned for use by the Genesys Adapter to access the Configuration Server.
- **User name**—The user name of the account the Adapter will use to connect to the Configuration Server.
- **Password**—The password of the account the Adapter will use to connect to the Configuration Server.

Note: The Genesys Configuration Server password is encrypted and saved in the `[adapterhome]\conf\inf_genesys_adapter.properties` file by default. To change the password see “Changing Encrypted Passwords After Installation” on [page 145](#).

- **Enable TLS connection**—To configure a TLS connection to the Configuration Server, select this option on the installation screen. If you have a backup Configuration Server, AGA also connects to it using TLS if you enable a TLS connection to the primary Configuration Server.
- **Config Server TLS Port Number**—Enter the Configuration Server TLS port number. If you enable a TLS connection, the TLS port number is used for both the primary and backup Configuration Servers. The port number for an unsecured connection is ignored. The primary and backup Configuration Servers must use the same TLS port number.
- **Locate TLS properties file**—Identify the location of the TLS properties file. The TLS properties file contains all the properties required to connect successfully using TLS, as well as any other optional TLS attributes that you use. If you use a backup Configuration Server, the TLS properties for the primary server are also used for the backup server.
- **Add backup server**—Optionally, select this checkbox to add and configure a backup Configuration Server.

Note: The backup Configuration Server can be, but does not need to be, configured in a high-availability pair in Genesys.

29. Click **Next**. If you opted to configure a backup Configuration Server, the configuration screen for the backup now displays.



The screenshot shows a Windows-style dialog box titled "Genesys Data Source - Backup Configuration Server". It contains three labeled text input fields. The first field, "Backup server name", contains the text "confserv_bk". The second field, "Backup host", contains the text "genesyslab". The third field, "Backup server port", contains the text "2030". Below these fields is a horizontal bar containing four buttons: "Cancel" (with a red X icon), "Back" (with a left-pointing arrow), "Next" (with a right-pointing arrow), and "Install" (with a circular arrow icon).

Figure 84: Genesys Data Source—Backup Configuration Server

30. Enter the information required for connecting to the backup Configuration Server in the Genesys environment.

- Backup server name—The name of the backup configuration server. The name is obtained from the Configuration Manager (CM) and is case sensitive.
- Backup host—The name or IP address of the machine hosting the backup Configuration Server.

Note: When using numerical IPv6 addresses, please enclose the literal in brackets.

- Backup server port—The port that the backup Configuration Server is listening on. If you enter a port number in this field, but enabled a TLS connection for the primary Configuration Server, this port number is ignored. If the primary server connection uses a TLS connection, then the backup server connection is also a TLS connection. When you enable the TLS connection, you must enter the Configuration Server TLS port number; Advisors uses that port for the connection for both the primary and backup Configuration Servers.

31. Click Next. The Genesys Data Source Stat Server screen displays.

Figure 85: Genesys Data Source—Stat Server Configuration

32. Enter the information required for connecting to the first (mandatory) Stat Server in the Genesys environment.

For the first Stat Server:

- **Name**—The name of the Stat Server server. The name is obtained from the Configuration Manager and is case sensitive.
- **Host Name**—The name or IP address of the machine hosting the Stat Server.

Note: When using numerical IPv6 addresses, please enclose the literal in brackets.

- **Port**— The port that the Stat Server is listening on.

Optionally, specify the backup server parameters for the first Stat Server:

- **Backup server name**—Name of the backup Stat Server. This is obtained from the Configuration Manager.
- **Backup host**—Name or IP address of the machine hosting the backup Stat Server.

Note: When using numerical IPv6 addresses, please enclose the literal in brackets.

- **Backup server port**—The port on which the backup Stat Server listens.

To configure a second or subsequent Stat Server (or Stat Server pair), check the Another Stat Server? check box. Repeat this step for each Stat Server (pair) you want to add.

Note: Up to four additional Stat Server pairs can optionally be configured—that is, a total of 10 Stat Servers can be configured.

33. If you are installing Release 8.1.2, or earlier versions of Advisors Release 8.1 software, skip this Step and go to [Step 34](#).
If you are installing Release 8.1.3 or later, specify the types of statistics supported on the Stat Server pair you are associating with this Genesys Adapter instance. The default is the Core stats type for the Stat Server pair if you do not make a selection from the options.

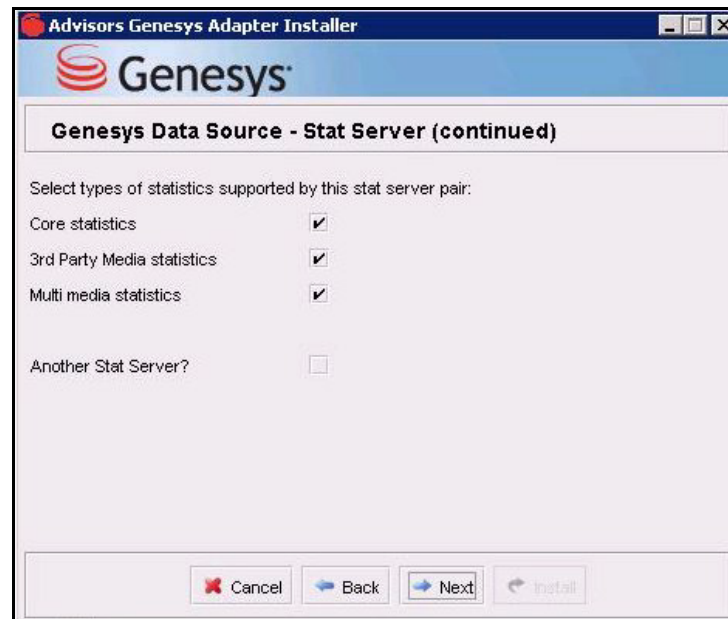


Figure 86: Selecting the statistics supported by the Stat Server pair

-
- Notes:**
1. After installation, the configuration option is unavailable in the Advisors user interface. If you require a change in the configuration after installation, you must update the Stat Server configuration table. If you make changes, you must restart the Genesys Adapter.
 2. The 3rd Party Media and Multimedia stats options require you to install the corresponding Java extensions on the Stat Servers. For more information, see “Configuring Virtual Queues for Voice and Non-Voice Statistics Requests” on [page 62](#).
-

34. Click Next.

The Periodic Statistics Reissue Scheduling screen is displayed (Figure 87 on [page 195](#)).

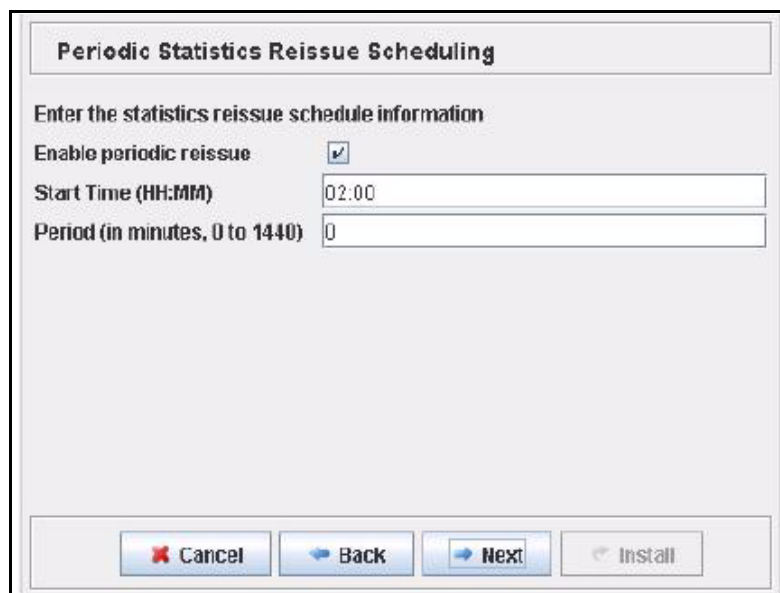


Figure 87: Periodic Statistics Reissue Scheduling Screen

35. If you want the Genesys Adapter to periodically reissue the Genesys statistics from the Genesys Configuration Server, check the Enable checkbox, then enter the 24-hour start time and period for the reissue schedule.

-
- Notes:**
1. Periodic reissue will not occur until after the initial reissue has been performed at the selected start time.
 2. If the start time has already passed at the time of Genesys Adapter startup, the initial reissue will occur on the following day.
 3. A period of 0 (zero) results in a period of 1440 minutes. Both values result in a once-per-day reissue.
 4. The scheduling for overnight reissue of statistics does not take into account any local Daylight savings time changes. After the initial scheduling, even if the server local time is adjusted for Daylight savings, the reissue of statistics will continue to take place at the unadjusted time. If the Genesys Adapter is restarted after the Daylight time saving is executed, the reissue of statistics will resume at the scheduled time.
-

36. Click Next. The Adapter Port and Registration Option screen displays.

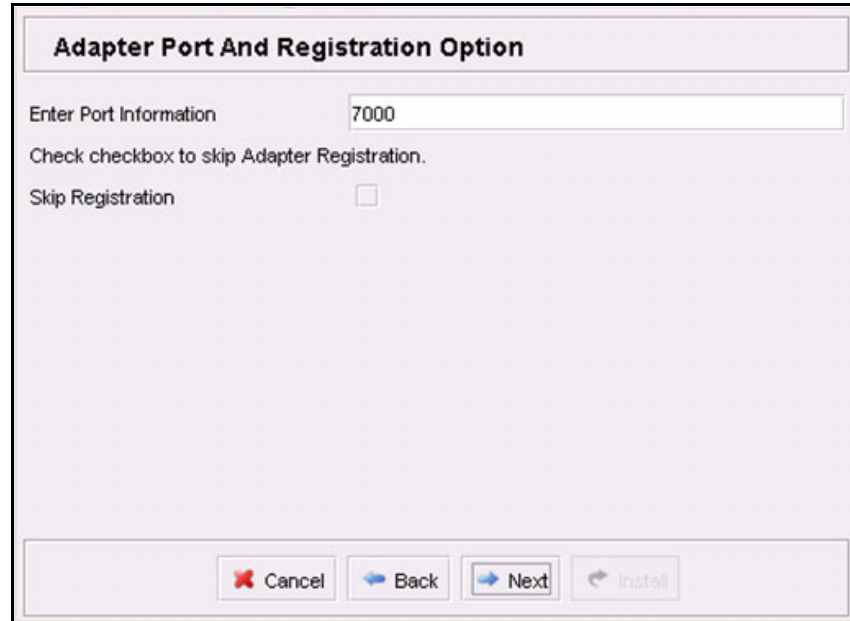
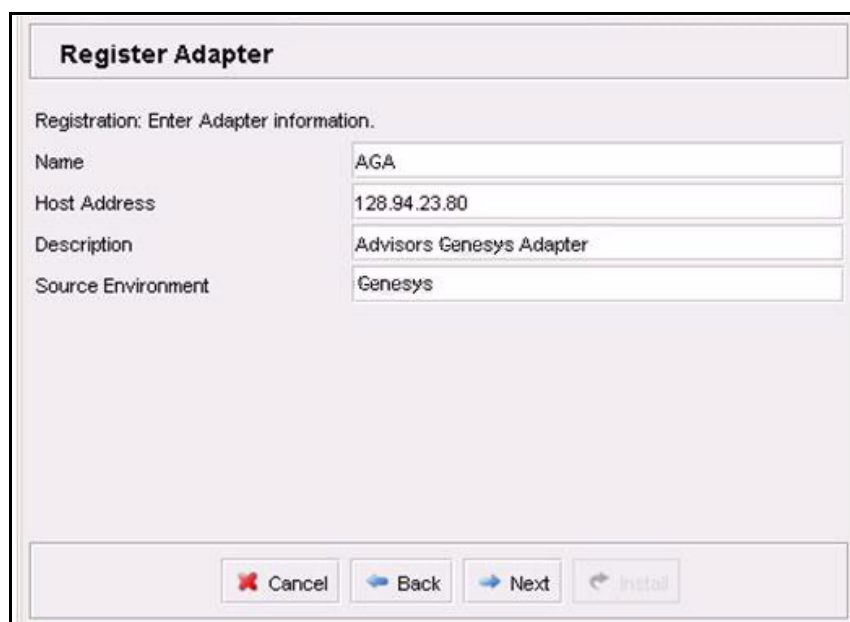


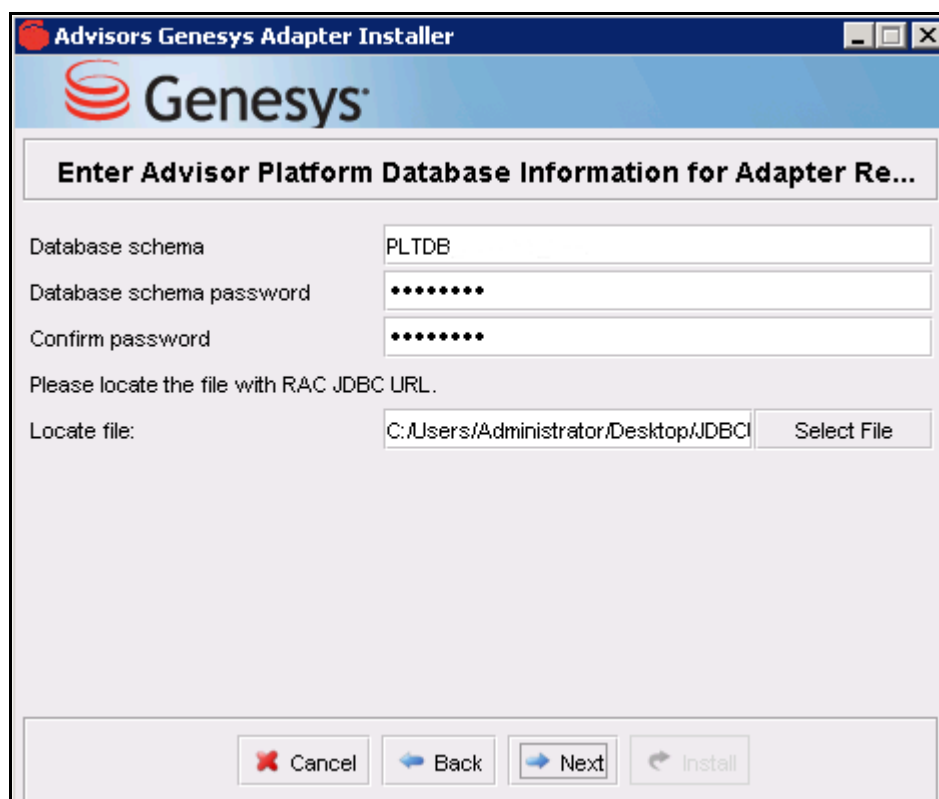
Figure 88: Adapter Port and Registration Option Screen

37. Enter the port number on which the Genesys Adapter web services will run. You can use the default port, 7000, if no other application is using that port.
38. Select whether to skip registration of the adapter in the Platform database. If you choose to skip registration, click Next and go to [Step 43](#). Otherwise click Next and continue from [Step 39](#).
39. The Register Adapter screen displays. If you are using SQL Server or a Basic Oracle database (single instance), see [Figure 89](#). Enter the Name, Host Address, Description, and Source Environment data for the adapter. If you are using an Oracle RAC database, see [Figure 90](#). In the Locate file field, enter the location of the file that contains the RAC JDBC URL (you should have the freeform JDBC URL in a text file). If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator.



The screenshot shows a 'Register Adapter' window with a title bar. Below the title bar is a section titled 'Registration: Enter Adapter information.' containing four labeled text input fields: 'Name' (containing 'AGA'), 'Host Address' (containing '128.94.23.80'), 'Description' (containing 'Advisors Genesys Adapter'), and 'Source Environment' (containing 'Genesys'). At the bottom of the window are four buttons: 'Cancel' (with a red X icon), 'Back' (with a left arrow icon), 'Next' (with a right arrow icon), and 'Install' (with a circular arrow icon).

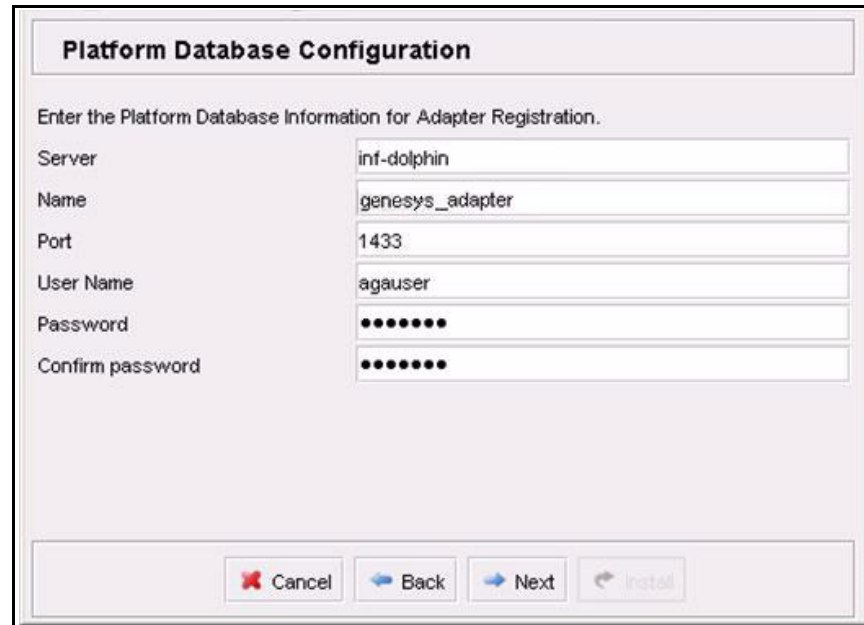
Figure 89: Register Adapter Screen – SQL Server or Basic Oracle



The screenshot shows the 'Advisors Genesys Adapter Installer' window. The title bar includes the Genesys logo and the text 'Advisors Genesys Adapter Installer'. Below the title bar is a section titled 'Enter Advisor Platform Database Information for Adapter Re...'. It contains three labeled text input fields: 'Database schema' (containing 'PLTDB'), 'Database schema password' (containing seven dots), and 'Confirm password' (containing seven dots). Below these fields is the text 'Please locate the file with RAC JDBC URL.' followed by a 'Locate file:' label and a text input field containing 'C:/Users/Administrator/Desktop/JDBC'. To the right of this field is a 'Select File' button. At the bottom of the window are four buttons: 'Cancel' (with a red X icon), 'Back' (with a left arrow icon), 'Next' (with a right arrow icon), and 'Install' (with a circular arrow icon).

Figure 90: Register Adapter Screen – Oracle RAC

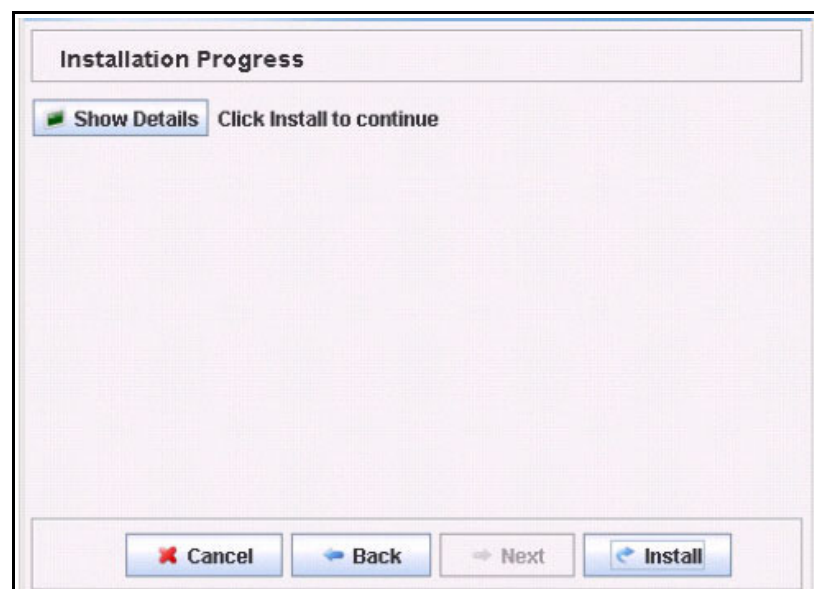
40. Click Next.
41. The Platform Database Configuration screen displays.



The screenshot shows a 'Platform Database Configuration' window. It has a title bar with the same text. Below the title bar is a subtitle 'Enter the Platform Database Information for Adapter Registration.' followed by six input fields: 'Server' (containing 'inf-dolphin'), 'Name' (containing 'genesys_adapter'), 'Port' (containing '1433'), 'User Name' (containing 'agauser'), 'Password' (masked with dots), and 'Confirm password' (masked with dots). At the bottom are four buttons: 'Cancel' (with a red X icon), 'Back' (with a left arrow icon), 'Next' (with a right arrow icon), and 'Install' (with a circular arrow icon).

Figure 91: Platform Database Configuration Screen

42. Enter the Server, Name, Port, User Name, Password and Confirm password data for the Platform database into which the adapter is to be registered. Click Next.
43. If installing the server, the Installation Progress screen displays (Figure 92 on [page 198](#))



The screenshot shows an 'Installation Progress' window. It has a title bar with the same text. Below the title bar is a 'Show Details' button (with a green checkmark icon) and the text 'Click Install to continue'. At the bottom are four buttons: 'Cancel' (with a red X icon), 'Back' (with a left arrow icon), 'Next' (with a right arrow icon), and 'Install' (with a circular arrow icon).

Figure 92: Installation Progress

44. Click Show Details then click Install and verify that there are no errors during installation.

45. For every Stat Server that you specified above (primary and backup), open the Stat Server configuration through the Configuration Manager and import the Advisor metrics on the Options tab. The metrics are stored in a file named `StatServerEntries.cfg`, and the file is located in `C:\Program Files\GCTI\advisors\Genesys\Adapter\CONF` (or wherever you selected to install the Genesys Adapter).

This configuration file also contains settings for the Stat Server logging. The location of the log file can be changed by changing the following options in the Stat Server Options tab under the Log section:

```
all=statserver.log  
standard=statserver.log
```

End of procedure

Operation of Stat Server Redundant Pairs

Genesys Adapter maintains connections to both the primary and the backup Stat Servers as long as they are available, but also requests the historical statistics from both the Stat Servers of the pair at the same time.

Note: For the purposes of Advisors Genesys Adapter, Primary and Backup are determined by the specified Adapter installation options. Primary and Backup, in this case, is not related to the Primary and Backup Stat Server designation in Configuration Manager.

So, when connection to the primary is lost, Genesys Adapter switches over transparently to receiving Stat Server updates from the backup Stat Server. The historical counts therefore remain the same even after the switchover.

After the first switchover, the configured backup Stat Server is now treated as the new primary Stat Server, but when the old primary server comes back online, no automatic switchover takes place. Instead, all the historical statistics are now requested from the old primary Stat Server.

Because this Stat Server has just come back online, it needs to be given sufficient time to accumulate historical aggregated statistic counts. Because in CCAdv, one-day metrics are used, there should be at least a day before the next switchover happens. If the switchover happens sooner, then those statistic values would be shown as aggregated from the time when the Stat Server came back online.

Stat Server Statistics Load Balancing

Beginning in release 8.1.2, the relationship between a statistic and the Stat Server pair against which it is requested is now persisted. This means that on (re)start or refresh of the Adapter, statistics are now re-requested against the same Stat Server(s) as previously.

This means that Genesys Adapter no longer depends on the value set for the Stat Server `old-stats-remove-interval` option.

See also “Load Balancing” on [page 60](#).

If any additional Stat Servers are added after the initial starting of the Adapter, the statistics already requested with previous Stat Servers are not automatically re-distributed with the newly added Stat Server pair. The Administrator has two options if a redistribution is needed.

Option 1 for Releases 8.1.2 to 8.1.4

1. Truncate the `GC_SS_MAPPING` table by running the following SQL:
`DELETE FROM GC_SS_MAPPING`
2. Restart the Stat Servers, so that they do not hold on to the previous requests.
3. Restart the adapter.

Option 2 for Releases 8.1.2 to 8.1.4

This option can be chosen if the Administrator desires to keep the mapping with some of the Stat Servers.

1. Selectively update the `GC_SS_MAPPING` table such that a range of objects are now pointed to the new Stat Server added by running the following SQL:
`SELECT SS_PAIR_ID FROM GC_STAT_SERVER_CONFIG WHERE NAME = [Name of the new pair's primary Stat Server]`
`UPDATE GC_SS_MAPPING SET SS_PAIR_ID = ["ID" from above]`
`WHERE OBJECTID IN () AND OBJECTTYPE = ?`

Note: The object IDs above are the ID of the objects in the Configuration Server.

2. Restart only the Stat Servers whose mapping is modified.
3. Restart the adapter.

Option 1 for Release 8.1.5

1. Run the following SQL statement to truncate the `ADAPTER_SS_OBJ_MAPPING` platform database table:
`DELETE FROM ADAPTER_SS_OBJ_MAPPING WHERE SS_PAIR_ID = <Id of the stat server pair>`
where the ID is the ID of the stat server pair from the `ADAPTER_SS_CONFIG` table.
2. Restart the Stat Servers (this flushes any previous requests).

3. Restart the adapter and Platform server.

Option 2 for Release 8.1.5

Use this option to maintain existing mapping with some of the Stat Servers.

Run the following SQL statements to selectively update the ADAPTER_SS_OBJ_MAPPING table to point a range of objects to a new Stat Server installation:

```
SELECT SS_PAIR_ID FROM ADAPTER_SS_CONFIG WHERE
NAME = [Name of the new pair's primary Stat Server]
```

```
UPDATE ADAPTER_SS_OBJ_MAPPING SET SS_PAIR_ID = ["ID" from above] WHERE
OBJECTID IN ( ) AND OBJECTTYPE = ?
```

Notes on Genesys Adapter Configuration Parameters

This section contains configuration notes for the Genesys Adapter configuration properties file—`inf_genesys_adapter.properties`.

- Frequency of the transformer upload task for CCAdv. If the transformer upload task has not finished before the next scheduled one, the subsequently scheduled task waits in a queue.

```
informiam.genesys_connector.transformer.CCAdv.CCAdvChannel = 10
```

- Frequency for requesting incremental statistics for the selected object changes (in seconds):

```
informiam.genesys_connector.ObjectChangeStatRequest.frequency = 60
```

This property determines the interval at which the Genesys Adapter will handle changes to agent groups such as the addition or removal of agents.

Reducing this value enables the adapter to handle those changes immediately and send updates for the Advisors dashboard.

Increasing this value enables the adapter to batch the changes and request any additional statistics for the agents added.

- Statistics open request grouping

```
informiam.genesys_connector.statServer.maxOpenReqsPerGroup = 1000
```

```
informiam.genesys_connector.statServer.interGroupDelay = 1
```

This property controls the maximum number of statistic open requests that will be sent to the Stat Server consecutively with no pause, as well as the pause delay (in seconds) when that many number of statistics are requested.

Reducing this value ensures that the Stat Servers are not overloaded with large number of requests.

Increasing this value enables quicker processing of the statistics and therefore shorter startup/restart/overnight refresh times.

- Allow redistribution to other Stat Servers

```
informiam.genesys_connector.statServer.allowedistributestats =
false
```

This property allows redistribution of statistics between multiple Stat Servers when more than one Stat Server pair is configured. The purpose of this flag is to allow another available Stat Server pair to support the statistics, when the Genesys Adapter can not re-establish a connection to a given Stat Server pair.

If connection to both the primary Stat Server and the backup Stat Server are not available during the runtime, the Genesys Adapter receives a connection close event after the ADDP timeout. The Genesys Adapter then tries to re-establish a connection to the same pair for a number of times as configured by the following parameters:

```
informiam.genesys_connector.statServer.reconnect.attempts
informiam.genesys_connector.statServer.reconnect.attempt-interval
```

If the adapter cannot re-establish the connection before the expiry of the reconnect period, redistribution of the statistics is attempted, provided the capacity of the other Stat Server pair is within the limit configured by:

```
informiam.genesys_connector.statServer.maxNumOfStatsLimit
```

This functionality is disabled by default. If the statistics requested with one Stat Server pair are distributed to another Stat Server pair it could result in overloading of the other Stat Server pair.

This property can be set to true for small customers where the total number of statistics requested is small or where the amount of statistics redistributed is small and will not result in overloading of the Stat Servers.

- Maximum limit for the number of stats to request with each Stat Server configured

```
informiam.genesys_connector.statServer.maxNumOfStatsLimit = 500000
```

This property ensures that no configured Stat Server is overloaded past this preset limit.

Consider adjusting this to a smaller or a larger value, depending upon the Stat Server environment and its resource overhead.

Note: The Stat limit property is valid for Releases 8.1.2 to 8.1.4. This property does not exist in the Genesys Adapter properties file beginning in Release 8.1.5.

- Time in seconds to wait on Stat Server connection to open before sending statistics requests to all opened Stat Server connections.

```
informiam.genesys_connector.statServer.onstartWaitTimeForAllSSConnectionsToOpen = 20
```

This property controls how long the adapter waits for the connection to Stat Server to be established before distributing the request more widely. On start, if its taking longer to establish connections to the configured Stat

Servers, consider increasing this time limit. Waiting a longer time before establishing connection to all Stat Servers ensures more equal distribution of the statistics to the configured Stat Servers.

- Whether and how frequently the adapter should re-issue statistics periodically:

```
informiam_genesys_connector.stats.reissue.shouldReissue = true
informiam_genesys_connector.stats.reissue.startTime =
informiam_genesys_connector.stats.reissue.period =
```

The start time is the 24-hour time at which a reissue will occur every day.

The period is the period, in minutes relative to the adapter start time, that reloads will repeat. The period must be between 0 and 1440, with 0 and 1440 representing one reissue per day.

Note: The preceding properties are valid for Releases 8.1.2 to 8.1.4. The properties do not exist in the Genesys Adapter properties file beginning in Release 8.1.5.

- Indicates the number of reconnect attempts to the Configuration Server before trying to connect to the backup Configuration Server in the case of the connection dropping and the interval between the reconnect attempts (in seconds). This is in addition to, and after, the ADDP time out, if configured.

```
informiam_genesys_connector.configServer.reconnect.attempts = 5
informiam_genesys_connector.configServer.reconnect.attempt-interval = 30
```

- Indicates the number of reconnect attempts to the Stat Server before trying to connect to the backup server in the case of the connection dropping and the Indicates the interval between the reconnect attempts (in seconds). This is in addition to, and after, the ADDP timeout, if configured.

```
informiam_genesys_connector.statServer.reconnect.attempts = 3
informiam_genesys_connector.statServer.reconnect.attempt-interval = 10
```

- The port of communication between CCAdv and the Genesys Adapter and between FA and the Genesys Adapter.

```
informiam_genesys_connector.api.port =
```

- Process timeout values, in seconds

```
informiam_genesys_connector.waitForStatOpenEventsTimeout = 600
```

This property controls how long the Genesys Adapter waits for a response from the Stat Servers after requesting to open the statistic requests. If there is a slow response from the Stat Server, or if there are too many objects configured, consider increasing this timeout.

- Number of times the connector will attempt to re-request statistics

```
informiam_genesys_connector.numOfMaxStatRerequestTimes = 3
```

When there is an error in the process of requesting the statistics, this property determines the number of times the adapter should try and re-request all the statistics, to clear away any runtime issues. If the issue is with the configuration of statistics, it is not likely to be cleared by re-requesting of the statistics.

- ADDP Settings to be used with the Configuration Server connection:
`informiam.genesys_connector.configServer.addp.turnon = true`
`informiam.genesys_connector.configServer.addp.tracemode =`
`informiam.genesys_connector.configServer.addp.servertimeout = 300`
`informiam.genesys_connector.configServer.addp.clienttimeout = 120`
`informiam.genesys_connector.configServer.protocol.request.timeout = 180`
- ADDP Settings to be used with the Stat Server connections:
`informiam.genesys_connector.statServer.addp.turnon = true`
`informiam.genesys_connector.statServer.addp.tracemode =`
`informiam.genesys_connector.statServer.addp.servertimeout = 300`
`informiam.genesys_connector.statServer.addp.clienttimeout = 120`
- Pause parameters that check against the queue of the incoming Stat Server messages.
`informiam.genesys_connector.transformerjob.pausechecklimit = 25000`
`informiam.genesys_connector.statsissue.pausechecklimit = 5000`

When statistics are requested, in order to avoid the JVM being overwhelmed by processing of the incoming messages from the Stat Server, the above check limits are prescribed. This enables the adapter to pause the writing of updates to the metrics database and any further processing of requests of more statistics. Once the number of statistics waiting to be processed goes below the configured limits, the paused jobs are resumed.

In environments where sufficient runtime memory is not available, consider setting these limits to a smaller value.

Setting a very small value could lead to delay in sending the updates to the Advisors dashboard.

- File encoding to be used with the Configuration Server and the Stat Server connections.
`informiam.genesys_connector.psdg.server.fileEncoding = windows-1252`
 This file encoding property is used in encoding the text that is read from the Configuration Server and sent to the Stat Server in requesting the statistics. Adjustments to this may be needed depending upon the supported language's character encoding.
- Enable or disable a TLS connection to the Configuration Server (applicable to both the primary and backup servers if using Configuration Server warm standby configuration).
`genesys_connector.configServer.tls.enabled`

You can set the flag to true post-installation if you require a TLS connection to the Configuration Server, but did not enable the TLS connection when deploying Advisors Genesys Adapter (AGA). The `genesys_connector.configServer.tls.enabled` property is the only property that AGA recognizes to enable or disable a TLS connection to Configuration Server. TLS is configured and enabled completely inside Advisors, unlike other applications whose TLS configuration can be stored in a Configuration Server Application object. A setting to disable or enable TLS (`tls=0` or `tls=1`) in the TLS properties file that you prepare is also ignored.

- Identify the Configuration Server port number for establishing a TLS connection from AGA.

```
genesys_connector.configServer.tls.port
```

If you enable a TLS connection, the TLS port number is used for both the primary and backup Configuration Servers, where both are configured. The port number for an unsecured connection, if configured, is ignored. The primary and backup Configuration Servers must use the same TLS port number.

- If using a TLS connection to the Configuration Server, specify the location of the TLS properties file that you prepared.

```
genesys_connector.configServer.tlsproperties.file
```

The TLS properties file contains all the properties required to connect successfully using TLS, as well as any other optional TLS attributes that you use. If you use a backup Configuration Server, the TLS properties for the primary server are also used for the backup server.

Notes on Stat Server Configuration Settings

Genesys recommends that the Stat Servers configured for Advisors are configured as described in this section.

```
[java-config]
java-extensions-dir=./java/ext
java-libraries-dir=./java/lib

[java-extensions]
eServiceContactStat.jar=true
eServiceInteractionStat.jar=true

[statserver]
enable-java=true
accept-clients-in-backup-mode=yes
auto-backup-interval=0
```

The `[java-config]` and `[java-extensions]` options as well as the Stat Server option `enable-java=true` are required for supporting interaction queue statistics. If interaction queue statistics are not monitored in a given deployment, these settings are not needed.

The Stat Server option `accept-clients-in-backup-mode` should be set to `Yes` to allow Genesys Adapter to request statistics from both the primary and the backup Stat Servers on start. This is to support High Availability on switchover from the primary to the backup Stat Server.

The Stat Server option `auto-backup-interval=0` tells the Stat Server not to create a backup file. This will ensure that the Stat Servers do not start automatically re-requesting the statistics on restart based on the stat requests cached in the backup file. The Genesys Adapter will be re-requesting the statistics and therefore this option should be turned off. In rare circumstances, the Stat Servers could be potentially be overloaded if this option is not set.

Restart

A restart to Genesys Adapter is required for any change in the property values to be picked up.

Disabling Agent-Level Monitoring

In Releases 8.1.3 and 8.1.4 you can disable updates to the Agent Skill Group Real Time table in the metrics database by configuring Genesys Adapter to skip upload of the Agent Skill Group Real Time table records. See [Procedure: Disabling updates of the Agent Skill Group Real Time table on the metrics database](#).

In Release 8.1.5, you disable agent-level monitoring by modifying the statistics templates for CCAdv. See [Procedure: Disabling the agent level statistics templates for CCAdv](#).

Procedure: Disabling updates of the Agent Skill Group Real Time table on the metrics database

Start of procedure

1. Edit the table-config.xml file under conf folder of the Genesys Adapter deployment.
2. Comment out the following section of the Agent Skill Group Real Time table configuration, and save the changes.

```
<!--
    <tableconfig title="AgentSkillGroupRealTime">
        <type>data</type>
        <tablename>t_Agent_Skill_Group_Real_Time</tablename>
        <formatfile>format_files/Agent_Skill_Group_Real_Time.fmt</
formatfile>
        <key-fields>SkillGroupSkillTargetID, SkillTargetID</key-fields>
    </tableconfig>
-->
```

3. You can run the following SQL statement to disable agent-level statistics templates on the Genesys Adapter configuration database:

```
update gc_statistics_templates set used = 0 where objectType =
'Agent' and metricId in (9,17) and applicationName = 'CA'
```

End of procedure

Procedure: Disabling the agent level statistics templates for CCAAdv

Start of procedure

1. Run the following SQL statement to disable the agent-level statistics templates that are supplied with Contact Center Advisor:


```
update statistics_templates set isEnabled = 'N' where objectType =
'Agent' and metricId in (9,17,86) and moduleName = 'CCAAdv'
```
2. Restart the Advisors suite server (Platform Server) and Genesys Adapters.

End of procedure

Deploying the SDS Service

-
- Notes:**
- Supervisor Desktop Service (SDS) requires a 32-bit Java installation (JVM). SDS will run on a 64-bit operating system, including both Win2K8 and Win2K3 Server—but attempting to run the SDS startup executable against a 64-bit Java causes it to immediately shut down. SDS can be started and run from its batch file using 64-bit Java, but this requires a session to be always open on its server and is therefore not recommended. Java 32-bit can be run on 64-bit Windows operating systems.
 - Performance Management Advisors Release 8.1.401 supports Oracle JDK 1.7, but SDS does not. If you deploy SDS with Advisors Release 8.1.401, and you have Java 7 installed, you must also install a version of JDK 1.6.0 for SDS.
-

Procedure: Deploying the SDS service

Start of procedure

1. If an older version of SDS is already installed, uninstall it:
 - a. Shut down the SDS service.
 - b. In a command prompt, navigate to the `bin` subdirectory for the SDS installation.
 - c. Run `service.bat uninstall SupervisorDesktopService`.
 - d. Delete all files and subdirectories in the root SDS directory.
2. Ensure that you have either a `JAVA_HOME` or `JRE_HOME` environment variable set, pointing to the JDK or JRE root directory respectively
3. Choose a location on the server, and unzip the Supervisor Desktop Service zip file.
4. On the Genesys server, launch the Configuration Manager and go to the Hosts folder under the Environment tenant. Create a host object for the machine on which the SDS is going to be deployed, if one does not already exist. The IP address configured in this host object should be the actual IP address of the server, not a loopback address.
5. Go to the Application Templates folder and import the application template called `Genesys_Supervisor_Desktop_Service_763.adp`. This template is located with the SDS installation files.

6. Go to the Applications folder, then right click and select New in the right pane, and then select Application.
7. Select the Genesys_Supervisor_Desktop_Service_763.adp application template and a new window should open showing the new application.
 - a. On the General tab, set the name of the application to Genesys Supervisor Desktop.
 - b. (Multi-tenant environments only) On the Tenants tab, add the non-Environment tenant that SDS will monitor.
 - c. On the Server Info tab, select the host object configured in the step above (that is, the server that the SDS is going to be deployed on). If necessary, change the port number to 8080.
 - d. On the Start Info tab, enter a single period (.) for the Working Directory, Command Line and Command Line arguments.
 - e. On the Options tab:
 - Under the License section, change the value for license-file to the port and host name of the server hosting the license server. This value should be in the format Port@Hostname (for example, 7260@inf-devlab).
 - Update the following options under the supervisor section:
 - calculated-statistics-enable with value true.
 - stat-on-request with value true
 - stat-threads with value -1
 - stat-peeking with value false
 - show-env-tenant with value false for multi-tenant configurations, or value true for single-tenant configurations

Note: The following setting:

`stat-threads= -1`

can be used to indicate “use all available processors”.

For smaller customers the following settings:

`stat-peeking=false`

`stat-refresh-rate=30`

can be used to create periodic SDS statistics polling at 30-second intervals.

The refresh rate can be increased for more frequent updates, at the cost of increased SDS and Stat Server load.

For larger customers the following setting:

`stat-peeking=true`

can be used to define on-demand statistics retrieval.

- f. On the **Connections** tab, add connections to the T-Servers, Interaction Servers, and the Stat Server that the SDS will connect to.

Note: SDS can be connected to one primary/backup Stat Server pair.

- g. Save the application.
8. Open the SDS application properties through the Configuration Manager again.
9. Go to the **Security** tab. In the **Log On As** section, select the **This Account** option, and set the value to **default** or set it to the name or any other account that has full control privileges.
10. Go to the **Options** tab and double-click the **Supervisor** option. Add the properties in [Table 7](#) for your e-mail messaging system.

Table 7: E-mail Properties

Property Name	Example Property Value	Description
email-sender-address	<adminaccount@email-server.com>	The From address used for all Resource Management notification e-mail messages
email-server	<email-server@domainname.com>	The mail server name
email-server-port	25	Default SMTP port
email-user	sds.email.account	The user account for the e-mail server. Ignored if email-authenticate is set to off .
email-authenticate		Does the e-mail server require authentication? Valid values: <ul style="list-style-type: none"> • on • off
email-use-SSL		Does the e-mail server use SSL? Valid values: <ul style="list-style-type: none"> • on • off
password		The password for the e-mail server. Ignored if email-authenticate is set to off .

11. Verify that the T-Server(s), Interaction Server(s), and Stat Server(s) are configured with a correct host, that is, not with `localhost`.

Note: The SDS uses the hosts that are configured in the Configuration Server for the T-Servers, Interaction Servers, and the Stat Servers to determine where they are installed and how to reach them. If these servers are configured with the host `localhost`, the SDS tries to connect to the server on which it is installed. This will not work if the SDS and the other servers are installed on different machines.

12. If the user that the SDS will use has already been configured, skip this step. In the Configuration Manager, create a new person in your SDS-monitored tenant. (For single-tenant installations, create the person in the Environment tenant.) The person object should have the following attributes:

- First Name: Spv
- Last Name: Spv_Last
- Employee ID: Spv
- User Name: Spv

Leave the password fields blank and ensure that the `IsAgent` checkbox is checked.

13. Go to the Annex tab, and add a new section named `security`. Open this section and add the following properties:
 - `Supervisor = 1`
 - `SupervisorAdhoc = 2`
 - `SupervisorExtended = 10`
 - `SupervisorMonitoring = 1`
14. Save the user. Open the user properties again and go to the `Security` tab. In the Permissions pop-up, add the default user to the list and select `Full Control` as the type of access (if this does not already exist). Click `OK` and save the user.
15. Add permissions as follows:
 - For single tenant installations, add Spv to the Administrators group for the Environment:
 - i. Under `AccessGroups`, select `Administrators`, then right-click.
 - ii. Select `New --> Shortcut to Person`. Locate and add Spv.

- For multiple tenant installations, to enable agent maintenance, the Spv user requires the same subset of permissions as given tenant Administrators, but also requires change permission to Person objects (in order to manage agent skills).

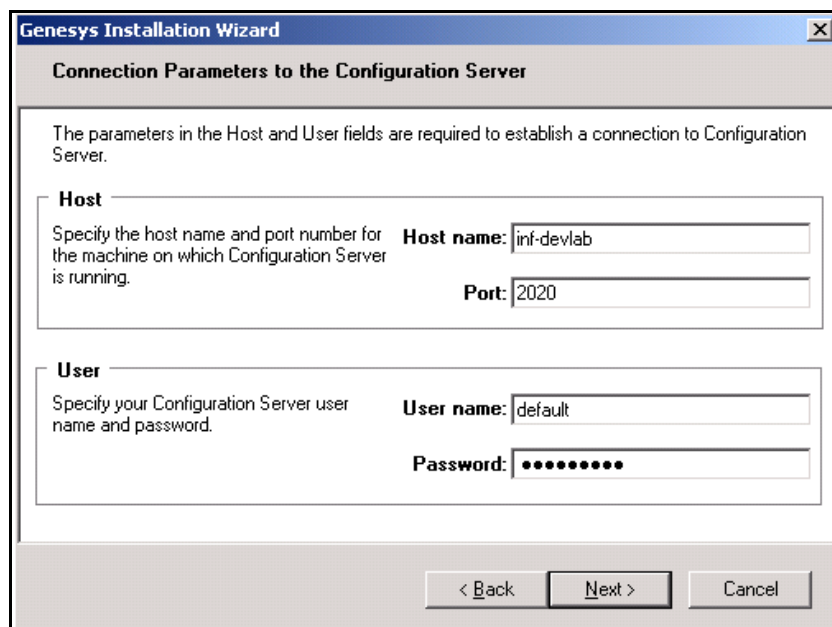
You might want to create a separate access group for the Spv user that contains these required permissions. If you do not wish to create a separate access group, please add the Spv user to the existing tenant's Administrators Access Group, and grant the group change permission to Person objects.

16. In the folder containing the Supervisor Desktop Service installation package, run `setup.exe`. The SDS Installation screen displays.



Figure 93: SDS Installation Screen

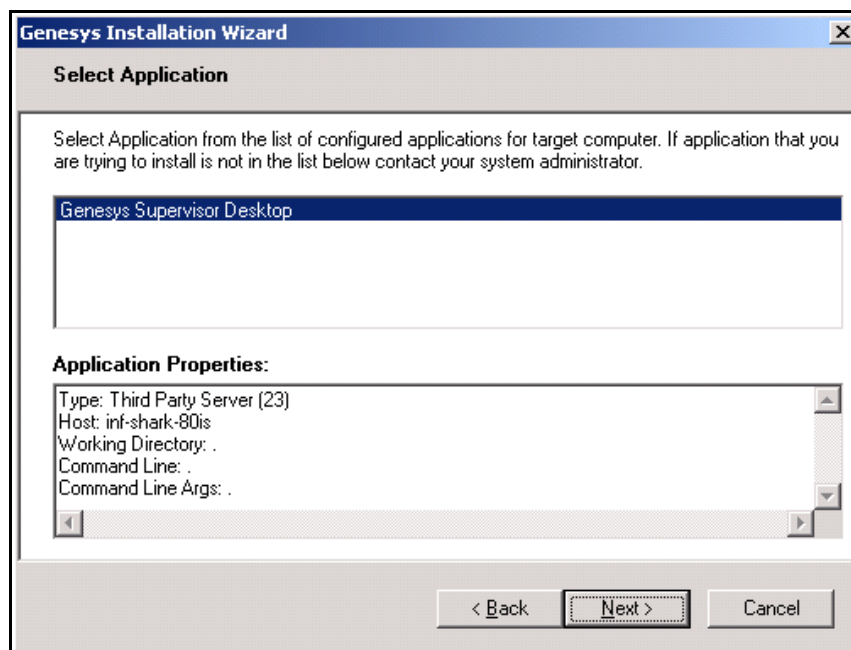
17. Click Next. The Connection Parameters screen is displayed.



The screenshot shows the 'Genesys Installation Wizard' window with the title 'Connection Parameters to the Configuration Server'. A message states: 'The parameters in the Host and User fields are required to establish a connection to Configuration Server.' Below this, there are two sections: 'Host' and 'User'. The 'Host' section has a text box for 'Host name' containing 'inf-devlab' and a text box for 'Port' containing '2020'. The 'User' section has a text box for 'User name' containing 'default' and a text box for 'Password' containing nine dots. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

Figure 94: Connection Parameters Screen

18. Enter the host name and port number for your Configuration Server, then enter the Configuration Server user name and password, and click Next. The Select Application screen is displayed.



The screenshot shows the 'Genesys Installation Wizard' window with the title 'Select Application'. A message states: 'Select Application from the list of configured applications for target computer. If application that you are trying to install is not in the list below contact your system administrator.' Below this, there is a list box containing 'Genesys Supervisor Desktop'. Below the list box, there is a section titled 'Application Properties:' with a text box containing the following information: 'Type: Third Party Server (23)', 'Host: inf-shark-80is', 'Working Directory: .', 'Command Line: .', and 'Command Line Args: .'. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'.

Figure 95: Select Application Screen

19. Select the application you created earlier (in Step 6) and click Next. The Choose Destination Location screen is displayed.

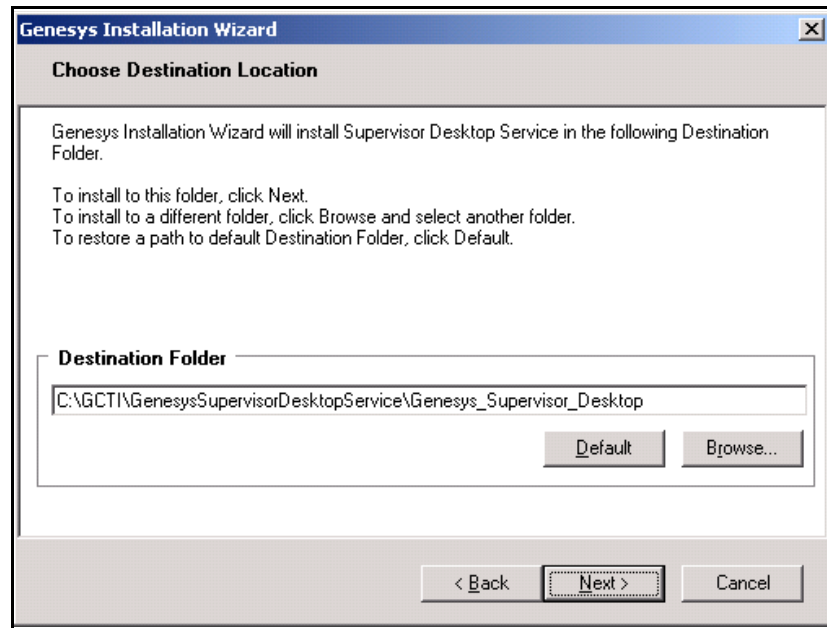


Figure 96: Choose Destination Location Screen

20. Choose the destination folder where the SDS files will be installed and click Next. The Connection Parameters to Backup Configuration Server screen is displayed.

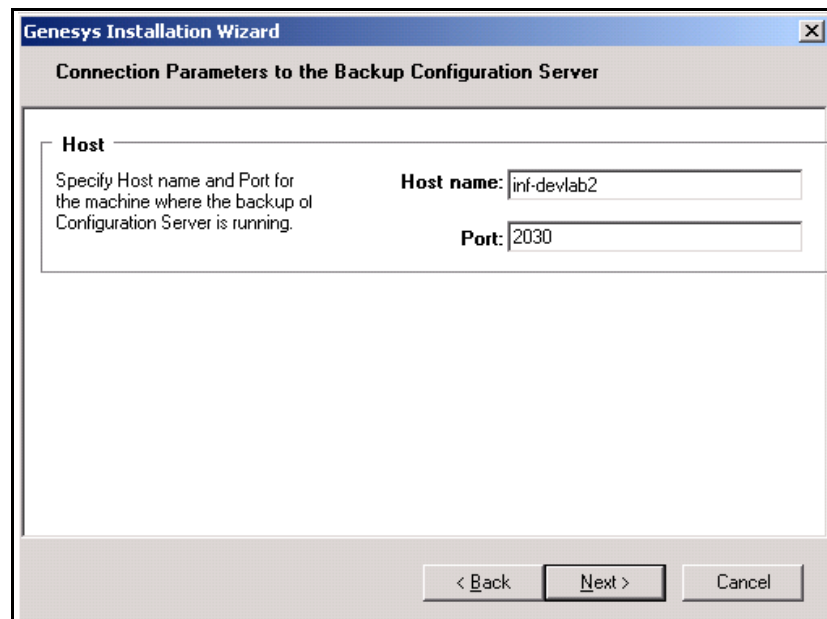


Figure 97: Connection Parameters to Backup Configuration Server

21. If a backup Configuration Server is present, enter the associated host name and port number and click Next. The Configuration Parameters screen is displayed.

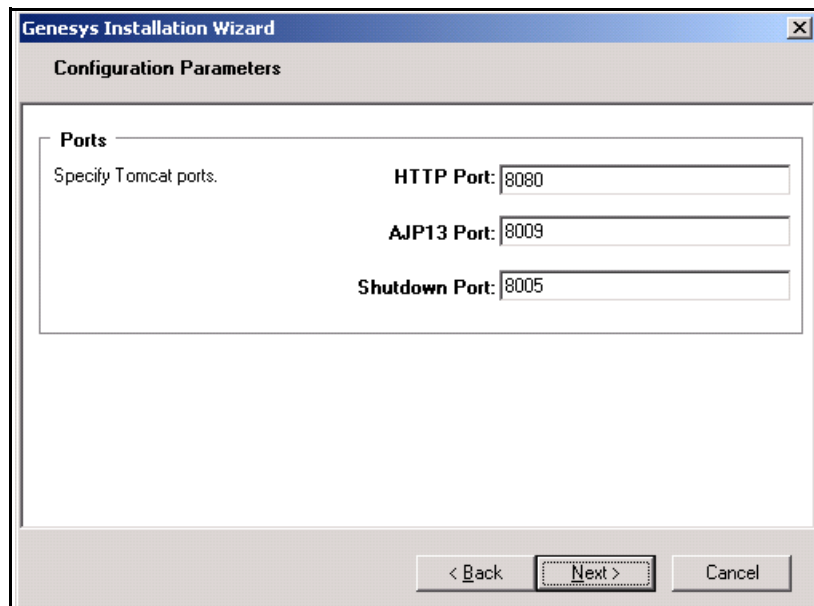


Figure 98: Configuration Parameters

22. Enter the port numbers to be used by Tomcat for HTTP, AJP13, and Shutdown and click Next.

The Ready to Install screen is displayed.

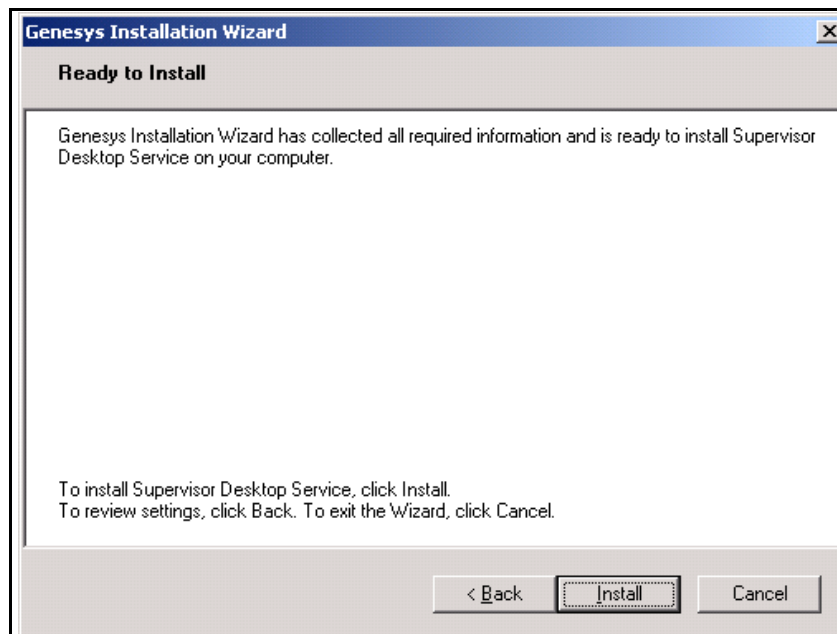


Figure 99: Ready to Install Screen

23. Click Install.
24. When the Installation Complete screen is shown, click Finish.

25. If you are running Release 8.1.2 or later, skip this Step.
In the Configuration Manager, edit the options for your Stat Server application:
 - a. Import the file `GSupervisorDesktopServiceStats.cfg` (found under the `Genesys_Supervisor_Desktop` folder of your installation directory) into the Stat Server application options. Do not overwrite or reload the existing options.
 - b. When prompted, choose to overwrite the `Objects` fields for two statistics.
26. In the Configuration Manager, browse to the scripts for the tenant(s) that you use for the SDS installation
In a pre-7.6 Configuration Manager installation, these would appear under `Resources/Scripts`.
In a 7.6+ Configuration Manager installation, these would appear under `Tenant/Scripts`.
Delete all scripts named `User Stat.SpV*`.
27. Restart Stat Server.
28. On the server containing your SDS service, navigate to directory `bin`, and edit the batch file `GDesktopStarter.ini`. Find the line starting with `echo JavaArgs:`
 - Change the value of setting “`-Xms`” to 512.
 - Change the value of setting “`-Xmx`” to 1024.
 - Append the following to the end of the line:
`-XX:+UseConcMarkSweepGC`
 - If SDS is being installed in a multiprocessor environment, add the following to the end of the line:
`-XX:+UseParNewGC`
29. Open the Windows Services control panel, and start the new Genesys Supervisor Desktop Service.

End of procedure

Deploying Resource Management Console

Procedure: Deploying Resource Management console

Start of procedure

1. On the machine with the Geronimo instance, run the Advisors Genesys Adapter installer. Click **Next** at the installation screen (see Figure 67 on [page 177](#)).

The **Installation Type** screen is displayed (Figure 68 on [page 178](#)).

2. Select **Deploy Resource Management Console** and click **Next**.
The **Database Type** screen displays.



Figure 100:Database Type Screen

3. Select the database type for this installation:
 - **SQL Server**
Click **Next** and go to [Step 5](#).
 - **Oracle**
Click **Next** and go to [Step 4](#).
4. If the **Oracle setup type** screen is available in your Advisors Genesys Adapter installer (see [Figure 101](#)), select the Oracle setup option that describes your environment:
 - Select the **Basic** option if you are using a single-instance Oracle database, and then click **Next**.

- Select the RAC connectivity setup option to connect to Oracle RAC, and then click Next.

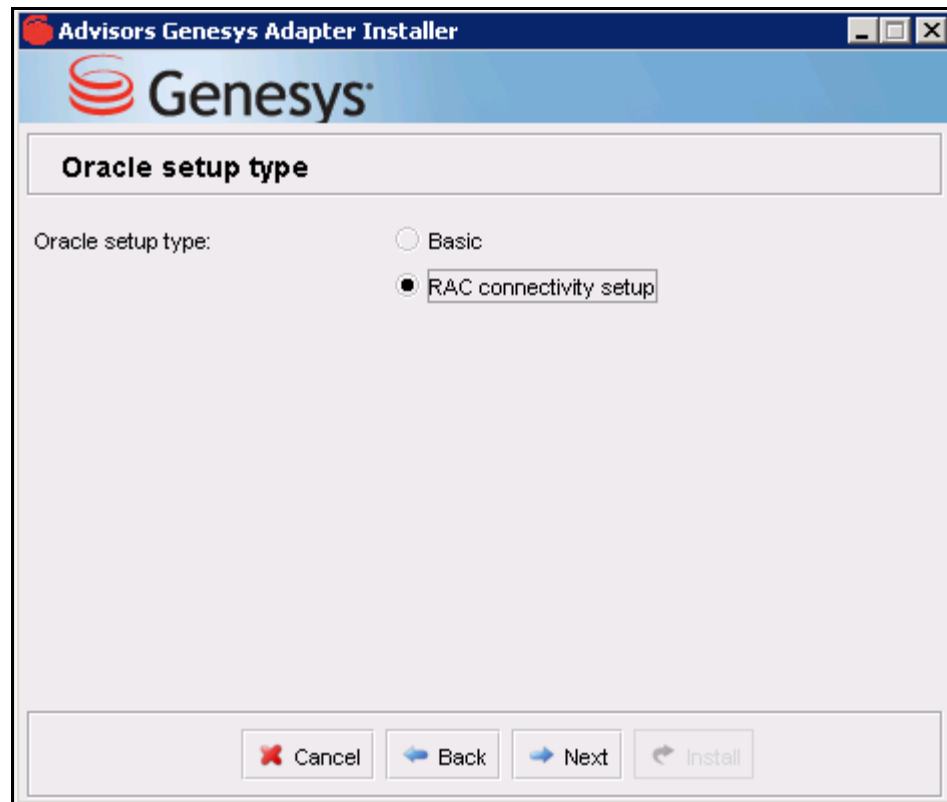


Figure 101: Oracle setup type screen

5. Select the base location of the Advisors installation (that is, the base directory where the Platform components and Geronimo are installed). In most cases, this is `C:\Program Files\GCTI\Advisors`. Click Next.
6. The Genesys Advisor Platform Database screen displays.

SQL Server or Oracle Basic Option: See [Figure 102](#).

Specify the parameters for the Advisors Platform database:

- a. Type the host name or IP address of the machine where the Genesys Advisor database is installed.

Note: When using numerical IPv6 addresses, enclose the literal in brackets.

- b. Type the database name.
- c. Type the user name and password of a user that will be used by the Adapter to access the database.

Genesys Advisor Platform Database

Host name, IP address, or named instance of the database server for the Platform database.

Database server:

The port number that the database server is listening on. If database server is a named instance, then omit the port number. (1433 is the default port number for MS SQL Server.)

Database port number:

Database name:

Database user:

Database user password:

Confirm database password:

Figure 102: Genesys Advisor Platform Database screen – SQL or Oracle Basic

RAC connectivity Option: See [Figure 103](#).

Specify the parameters for the Oracle RAC Platform database:

- a. Type the user name and password of a user that will be used by the Adapter to access the database.
- b. Navigate to the file that contains the RAC JDBC URL (you should have the freeform JDBC URL in a text file). If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator. The installer applies the specified freeform JDBC URL when configuring the datasources.

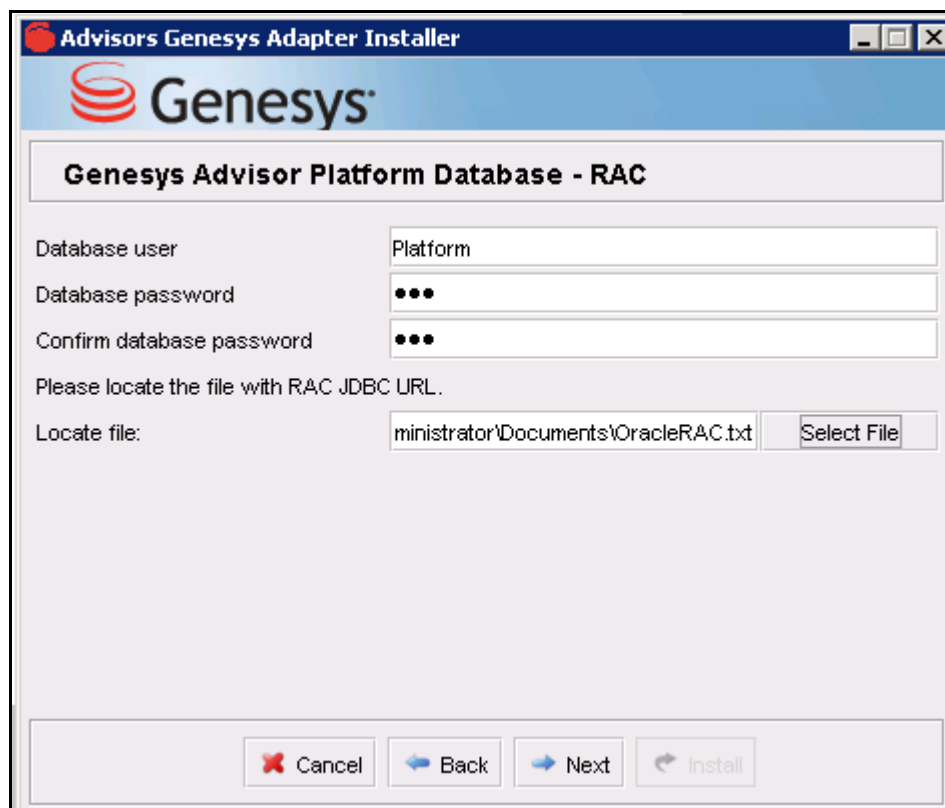


Figure 103: Genesys Advisor Platform Database – Oracle RAC

7. Click Next. The Installation Progress screen displays.
8. Click Show Details then Install.
9. Edit the RMCInfo.xml configuration file, found in:

```
Advisors\geronimo-tomcat6-minimal-2.1.3\repository\com\informiam\genesys\rmc-web\<version> \rmc-web-8.x.xxx_<version>.war
\WEB-INF\classes
```

(All SDS-prefixed properties refer to the SDS Service, installed earlier. All CCAdv/WA-prefixed properties refer to the CCAdv/WA installation host.)
Use the following values:

- a. SDS_IP—The IP address for the SDS Service host
- b. SDS_Port—The port number for the SDS path (default 8080)

- c. If you are using the Spv user with blank password in the SDS configuration (see [Step 12 on page 211](#)), do not change SDS_DeployPath, SDS_UserName or SDS_Password.
If the user for SDS is not the Spv user with blank password, you must enter that user and password (the SDS_UserName and SDS_Password parameters) in the RMCInfo.xml file. The password must be encrypted. To encrypt the password, use the password encryption utility (see “Changing Encrypted Passwords After Installation” on [page 145](#)).
- d. CCAWA_IP—The IP address for the CCAdv/WA server host.

Note: When using numerical IPv6 addresses, enclose the literal in brackets.

- e. CCAWA_Port—The port number for the CCAdv/WA server (default 8080).
10. To access the Resource Management Notification administration pages through the Advisors browser (Contact Center Advisor Administration module), add the following entry to the Apache httpd.conf file on the web server:
- ```
ProxyPass /rmc/ ajp://<rmc host>:<rmc port>/rmc/
```
- where <rmc host> is the host name or IP address for the machine on which the RMC module is installed, and where <rmc port> is the corresponding port number (default: 8009).
11. Open the services windows and restart the Geronimo server.

**End of procedure**

# Deploying Multiple Instances of the Genesys Adapter Core Service

It is possible to deploy multiple instances of the Genesys Adapter core service on a single server. You must decide whether to use the same metrics database for both Adapters. Note that if you do this, each Adapter must monitor a completely distinct set of objects. Each installation should:

- Create the Genesys Adapter database (see Part 1 on [page 75](#).)
- Install and configure the Genesys Adapter Core Service.
- Configure XMLGen with a few variations.

## Installation Notes

Each Genesys Adapter instance must have its own core database. Therefore, when creating the Genesys Adapter database, a unique name is required for each database instance.

### Procedure:

### Deploying multiple instances of Genesys Adapter core service on single server

#### Start of procedure

1. Run the installer jar, then select Install Server.
2. On Server Install Type screen:
  - a. Select Install the service.
  - b. Make sure that Start the Service is not selected.
  - c. Select the application(s) to be supported.
3. Each Genesys Adapter instance must be installed in a different directory. For example, the first instance could use the following location:

C:\Program Files\GCTI\Advisors\Genesys\Adapter

and the second instance could be located at:

C:\Program Files\GCTI\Advisors\Genesys\Adapter2.

This includes the log directory as well. Each Genesys Adapter instance on the same machine must use a different port number.

The same CCAdv/WA metrics database cannot be used by other Adapter instances. Each Adapter instance should have its own metrics database.

4. During the install, ignore this error if it occurs:

```
[exec] wrapper | CreateService failed — the specified service
already exists. (0x431)
```

5. Once the adapter has been installed, navigate to the `conf` folder for the second installation:
6. Locate the file `wrapper.conf` and edit it as follows:
  - a. Search for the string `# Name of service`.
  - b. Edit the parameter below it (`wrapper.nts.service.name=`) so that the service name is different from the original instance—for example, `Advisors Genesys Adapter 2`.
  - c. Edit the next parameter (`wrapper.nts.service.displayname=`) so that it differs from the original instance. This is the name that will appear in the NT Services dialog. It need not match the name used in `wrapper.nts.service.name=` above, but it can.
7. Save and close the file.
8. Navigate to the `bin` folder for the second installation, and execute the file `Install-Adapter-NT.bat`. This installs the renamed service. After the installation is complete, you can then locate and start the service in the Services Control Panel applet.

**End of procedure**

---

## Updating AGA Properties in the Database

Starting in Release 8.1.5, the Manage Adapters page in the Administration module is read-only. To manage Advisors Genesys Adapters (AGA), you must update the configuration in the Platform database.

A new Advisors Genesys Adapter instance is automatically created in the database whenever you install a Genesys Adapter.

---

### Procedure: Updating AGA properties in the database

#### Start of procedure

1. To update the properties of an installed AGA, edit the properties in the `ADAPTER_INSTANCES` table for the adapter in the Platform database.
2. Navigate to the installation folder for the adapter and update the following properties in the `inf_genesys_adapter.properties` file:
 

```
informiam.genesys_connector.host.name =
informiam.genesys_connector.api.port =
```
3. Restart the Advisors suite server (Platform server) and the AGA for which you edited the properties.

4. To remove a configured AGA instance, remove the associated record from the ADAPTER\_INSTANCES table in the Platform database.

---

**Note:** Before removing an adapter instance record, you must remove any records that are dependent on it from the ADAPTER\_SS\_OBJ\_MAPPING and ADAPTER\_SS\_CONFIG tables. Dependent records are keyed to the adapter\_instance\_id, and any delete statements need to specify this in a where clause.

---

**End of procedure**

---

## Adding Additional Stat Servers After Installation

To add additional Stat Server capacity after the deployment of Advisors Genesys Adapter, use one of the following procedures (depending on the release you have installed).

---

### Procedure: Adding additional Stat Servers after installation (release 8.1.5)

#### Prerequisites

- Access to the Platform configuration database.

#### Start of procedure

1. Insert into the table adapter\_ss\_config additional rows describing the additional Stat Servers. Name, Host and Port are required. One row includes the primary Stat Server, and its backup, if applicable.
2. After committing the changes to the database, restart the Platform server and Genesys Adapter.

**End of procedure**



---

**Procedure:**  
**Adding additional Stat Servers after installation**  
**(prior to release 8.1.5)****Prerequisites**

- Access to the AGA configuration database.

**Start of procedure**

1. Insert into the table `gc_stat_server_config` additional rows describing the additional Stat Servers. Name, Host and Port are required. One row includes the primary Stat Server, and its backup, if applicable.
2. After committing the changes to the database, restart the Genesys Adapter.

**End of procedure**

# Troubleshooting Installation Errors

Table 8 lists parameter validation errors that you may encounter at the end of installation.

**Table 8: Installation Error Messages**

| Error Message                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Cause                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <pre>[java] Failed to connect to the database using connection URL: [java] jdbc:sqlserver://192.168.xx.yy:nnn;DatabaseName=ys_gadb;user=sa;password=very_secure_pwd;selectMethod=cursor [java] The following exception was thrown: com.microsoft.sqlserver.jdbc.SQLServerException: The TCP/IP connection to the host 192.168.xx.yy, port nnn has failed. Error: "Connection refused. Verify the connection properties, check that an instance of SQL Server is running on the host and accepting TCP/IP connections at the port, and that no firewall is blocking TCP connections to the port.</pre>          | Wrong database server name / IP address or port number |
| <pre>[java] Failed to connect to the database using connection URL: [java] jdbc:sqlserver://192.168.xx.yy:nnnn;DatabaseName=NotAPlatformDB;selectMethod=cursor;user=sa;password=very_secure_pwd [java] The following exception was thrown: com.microsoft.sqlserver.jdbc.SQLServerException: The TCP/IP connection to the host 192.168.xx.yy, port nnnn has failed. Error: "connect timed out. Verify the connection properties, check that an instance of SQL Server is running on the host and accepting TCP/IP connections at the port, and that no firewall is blocking TCP connections to the port."</pre> | Wrong database name                                    |
| <pre>[java] Exception while connecting: Login failed for user 'badUserId'. [java] url used: jdbc:sqlserver://192.168.xx.yy:nnnn;DatabaseName=ys_gadb;selectMethod=cursor;user=badUserId;password=very_secure_password</pre>                                                                                                                                                                                                                                                                                                                                                                                    | Wrong database user name or password                   |
| <pre>[loadfile] Unable to load file: java.io.FileNotFoundException: C:\ (The system cannot find the path specified)</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Produced in error and can be ignored.                  |

# 8

## Deploying Cisco Adapter

This chapter gives an overview of the installation of Cisco Adapter. It contains the following section:

- [Prerequisites, page 227](#)
- [Deploying the Cisco Adapter, page 229](#)
- [Deploying Multiple Instances of the Cisco Adapter on a Single Server, page 243](#)
- [Troubleshooting Installation Errors, page 245](#)

---

### Prerequisites

See “Deployment Prerequisites” on [page 25](#).

Before deploying Cisco Adapter, you must have created the following three databases that Cisco Adapter communicates with and set up admin accounts for them:

- FA database (For Releases 8.1.2 to 8.1.4. Starting in Release 8.1.5, AGA and ACA no longer connect to the FA database.)
- ACA database
- Platform database

To create the Cisco Adapter databases, see either:

- Chapter 2, “Creating a SQL Server Database,” on [page 77](#), or;
- Chapter 3, “Creating an Oracle 11g Database,” on [page 93](#).

---

**Note:** Please read “Data Manager” on [page 50](#) before installing Cisco Adapter.

---

## Installation Summary

In release 8.1.x, Cisco Adapter only works with Frontline Advisor.

A verified Cisco environment must be ready and available. Credentials with read access to the HDS and AW databases must be available when the Advisors Cisco Adapter Installer is run. You require access to three views:

- HDS: Termination\_Call\_Detail
- AWDB: Agent\_Real\_Time, Controller\_Time

---

**Note:** Resource Management is not available for Cisco-only implementations.

---

## Installation Contents

The following files are shipped with the Cisco Adapter:

**MS SQL Server**    aca-installer-<version>.jar

Files in the mssql folder:

- aca-new-database-<version>.sql

Files in the mssql\migrations folder:

- aca-migration-3.3-to-8.0.sql
- aca-migration-8.0-to-8.1.sql
- aca-migration-8.1-to-8.1.1.sql
- aca-migration-8.1.1-to-8.1.2.sql
- aca-migration-8.1.2-to-8.1.3.sql
- aca-migration-8.1.3-to-8.1.4.sql
- aca-migration-8.1.4-to-8.1.5.sql

Files in the mssql\supplemental folder:

- GeneratePermsStatements.sql

**Oracle**    Files in the oracle folder:

- aca-<version>\_Schema.sql
- aca-<version>\_TBS.sql
- aca-new-database-<version>.sql

Files in the oracle\migrations folder:

- `aca-migration-8.1-to-8.1.1.sql`
- `aca-migration-8.1.1-to-8.1.2.sql`
- `aca-migration-8.1.2-to-8.1.3.sql`
- `aca-migration-8.1.3-to-8.1.4.sql`
- `aca-migration-8.1.4-to-8.1.5.sql`

---

## Deploying the Cisco Adapter

---

### Procedure: Deploying the Cisco Adapter

#### Start of procedure

1. Run the installation jar file by either;
  - Using the command `java -jar aca-installer-<version>.jar`; or,
  - Double-clicking the `aca-installer-<version>.jar` in the release bundle.

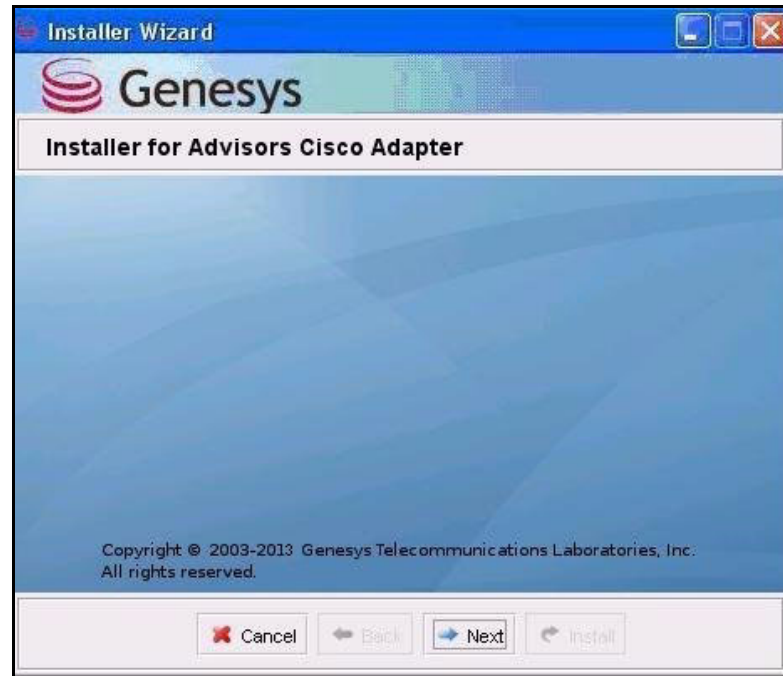
---

**Notes:**

1. Double-clicking may not work due to system settings, but using the command line terminal should always work.
2. For 64-bit systems, if double-clicking to launch the installer, please ensure that the Java instance associated with the `jar` file type is 64-bit. Running the installer with a 32-bit Java instance will create a Windows service with the wrong executable.

---

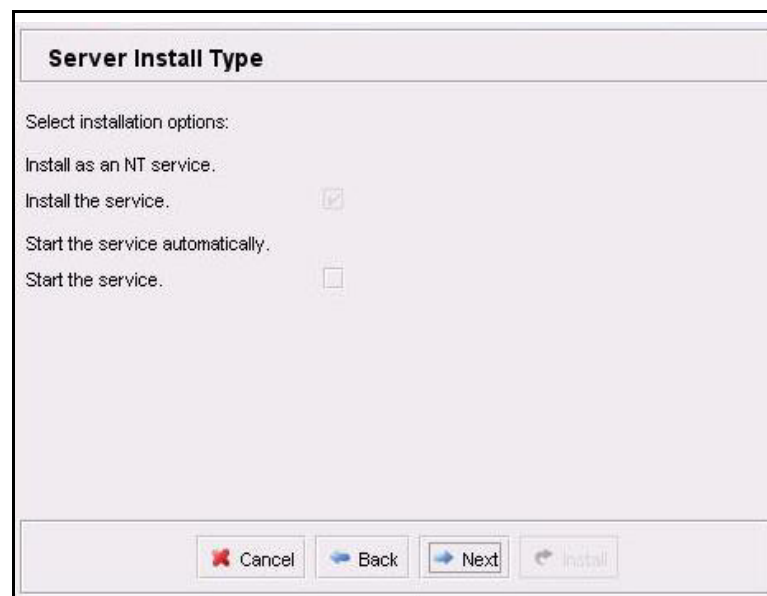
The Installer for Advisors Cisco Adapter screen displays.



**Figure 104: Installer for Cisco Adapter**

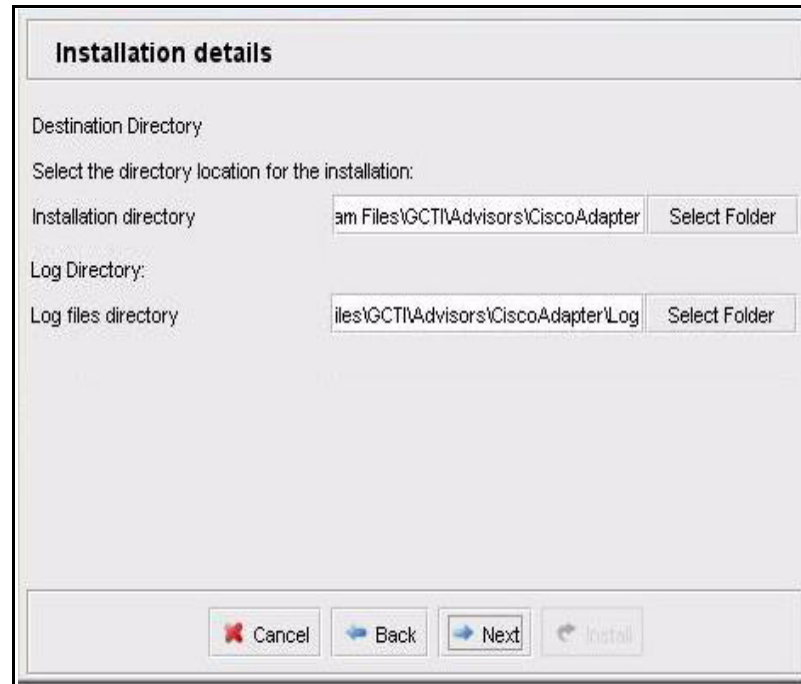
2. Click Next.

The Install Type screen displays (see Figure 105 on [page 230](#)).



**Figure 105: Server Install Type screen**

3. Choose an installation option and click Next. The Installation Details screen displays.



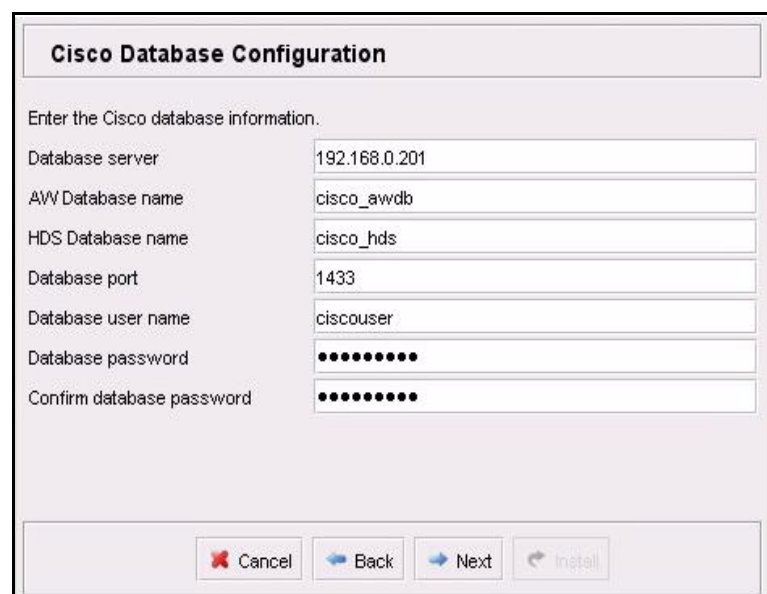
**Figure 106:Installation Details**

4. Specify the installation directory. The default installation directory is C:\Program Files\GCTI\Advisors\CiscoAdapter.
5. Specify the directory in which the log files will appear.
6. Click Next. If the directory does not yet exist, click Yes on the subsequent popup. The Java Development Kit installation screen displays.



**Figure 107:Java Development Kit Screen**

7. Specify the root directory for the JDK installation by either entering it or by browsing to it with the **Select Folder** button, then click **Next**.  
The **Cisco Database Configuration** screen displays (see Figure 108 on [page 232](#).)



**Cisco Database Configuration**

Enter the Cisco database information.

|                           |               |
|---------------------------|---------------|
| Database server           | 192.168.0.201 |
| AW Database name          | cisco_awddb   |
| HDS Database name         | cisco_hds     |
| Database port             | 1433          |
| Database user name        | ciscouser     |
| Database password         | .....         |
| Confirm database password | .....         |

**Figure 108:**Cisco Database Configuration

8. Enter the information required for connecting to the databases in the Cisco environment.

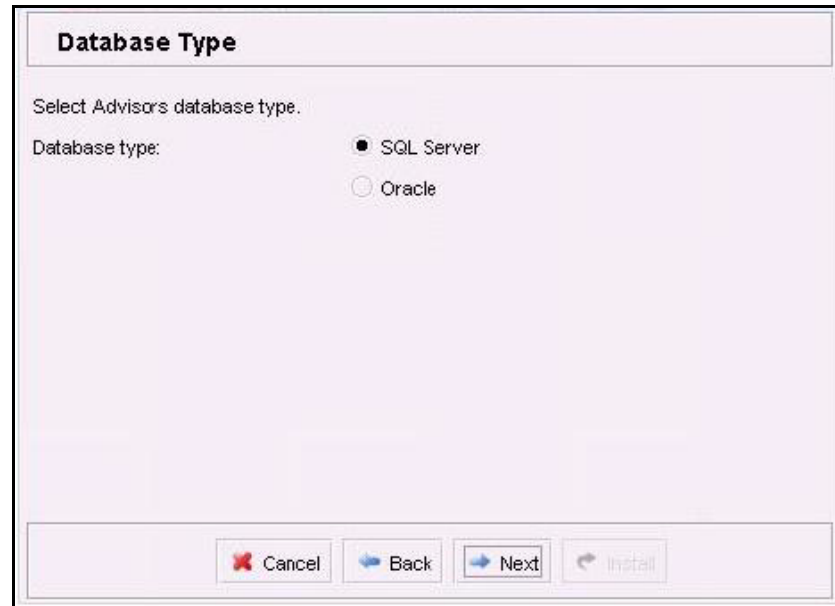
---

**Note:** When using numerical IPv6 addresses, please enclose the literal in brackets.

---

9. Click **Next**. The **Database Type** screen displays.





**Figure 109:Advisors Cisco Adapter Database Type Screen**

10. Select the database type for this installation:
  - Microsoft SQL Server  
Click Next and go to [Step 11](#).
  - Oracle  
Click Next and go to [Step 17](#).
11. The Advisors Cisco Adapter Database Configuration Screen displays (see Figure 110, “Advisors Cisco Adapter Database Configuration Screen for SQL Server,” on [page 234](#)).

**Advisors Cisco Adapter Database Configuration**

|                           |                 |
|---------------------------|-----------------|
| Database server           | 192.168.0.105   |
| Database name             | ciscoadapter_db |
| Database port             | 1433            |
| User name                 | ccuser          |
| Database password         | •••••           |
| Confirm database password | •••••           |

Cancel Back Next Install

**Figure 110:**Advisors Cisco Adapter Database Configuration Screen for SQL Server

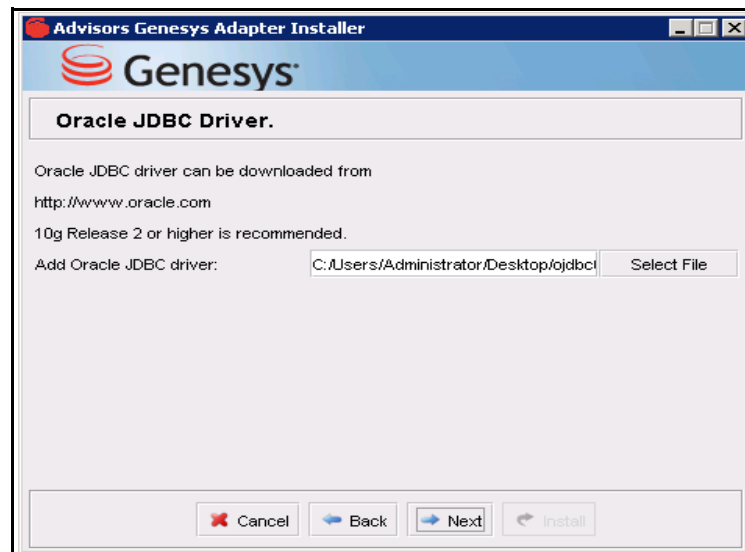
12. Enter the host name or IP address of the machine where the Cisco Adapter database is installed.

---

**Note:** When using numerical IPv6 addresses, please enclose the literal in brackets.

---

13. Enter the database name.
14. Enter the port number.
15. Enter and confirm the user name and password for the database login created / used for the Cisco Adapter database.
16. Click Next. Go to [Step 20](#).
17. (From [Step 10](#)). Locate the Oracle JDBC driver and click Next.



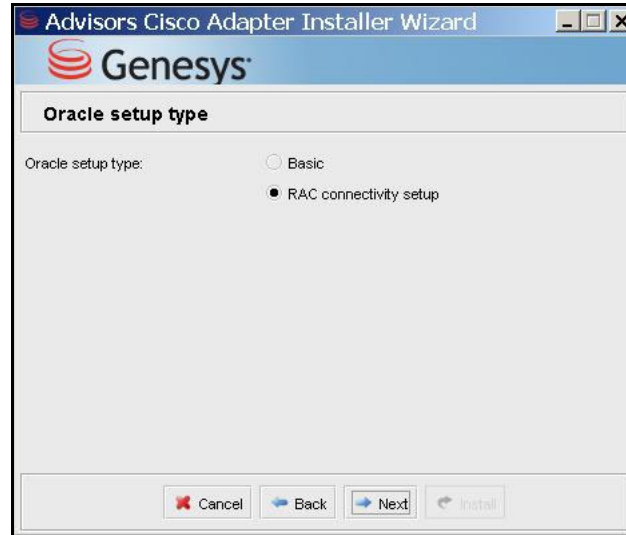
**Figure 111:Oracle JDBC Driver Screen**

---

**Note:** The following Oracle JDBC drivers can be used:

- Oracle database 11g release 2 (11.2.0.2.0). The download file is `ojdbc6.jar`.
- 

18. If you selected Oracle as the database type, and if the Oracle setup type screen is available in your Advisors Cisco Adapter installer (available starting in Release 8.1.5), select the Oracle setup option that describes your environment (see Figure 92):
- Select the Basic option if you are using a single-instance Oracle database.
  - Select the RAC connectivity setup option to connect to an Oracle Real Application Cluster (RAC) database.



**Figure 112:Advisors Cisco Adapter Oracle setup type screen**

19. Click Next. The Advisors Cisco Adapter Database Configuration screen for Oracle is displayed.

**Basic Option:** See [Figure 113](#).

Specify the parameters for the ACA Oracle database:

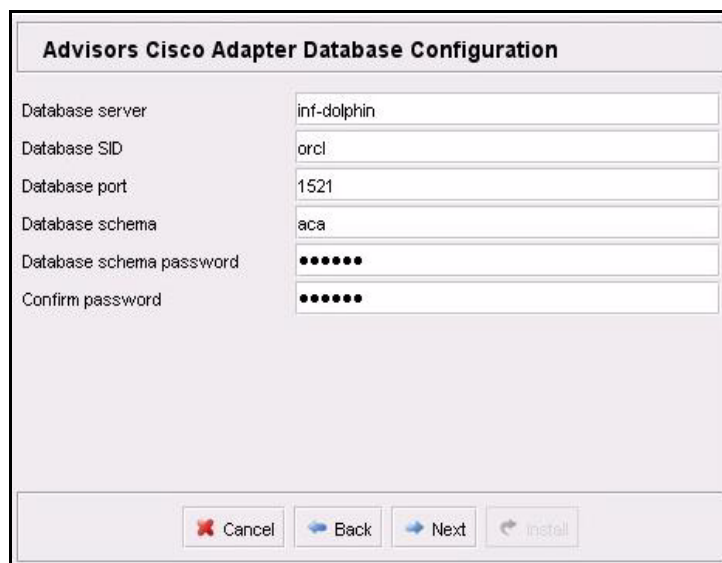
- Database Server—The host name or IP address where the database server is running.

---

**Note:** When using numerical IPv6 addresses, please enclose the literal in brackets.

---

- Database SID—Unique name of the database instance.
- Database port—The database server's port number
- Database schema—The database schema created and used for the Cisco Adapter.
- Database schema password—The database schema password.



**Advisors Cisco Adapter Database Configuration**

|                          |             |
|--------------------------|-------------|
| Database server          | inf-dolphin |
| Database SID             | orcl        |
| Database port            | 1521        |
| Database schema          | aca         |
| Database schema password | •••••       |
| Confirm password         | •••••       |

Cancel Back Next Install

**Figure 113:Advisors Cisco Database Configuration Screen for Oracle – Basic**

**RAC Connectivity Option:** See [Figure 114](#).

Specify the parameters for the ACA Oracle RAC database:

- Database schema—The database schema created and used for the Cisco Adapter.
- Database schema password—The database schema password.
- Locate file—The location of the file that contains the RAC JDBC URL (you should have the freeform JDBC URL in a text file). If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator.



**Advisors Cisco Adapter Installer Wizard**

**Genesys**

**Advisors Cisco Adapter Database Configuration - RAC**

|                          |  |
|--------------------------|--|
| Database schema          |  |
| Database schema password |  |
| Confirm password         |  |

Please locate the file with RAC JDBC URL.

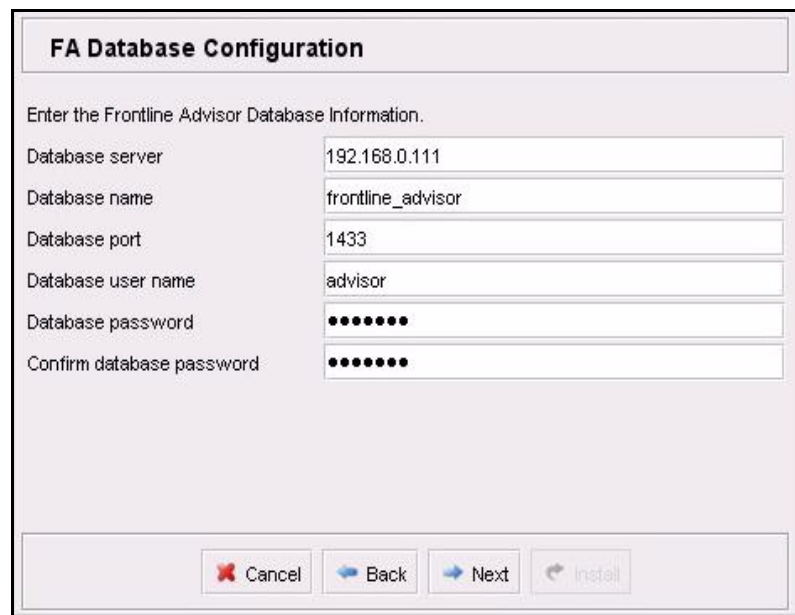
Locate file:

Cancel Back Next Install

**Figure 114:Advisors Cisco Adapter Database screen for Oracle – RAC**

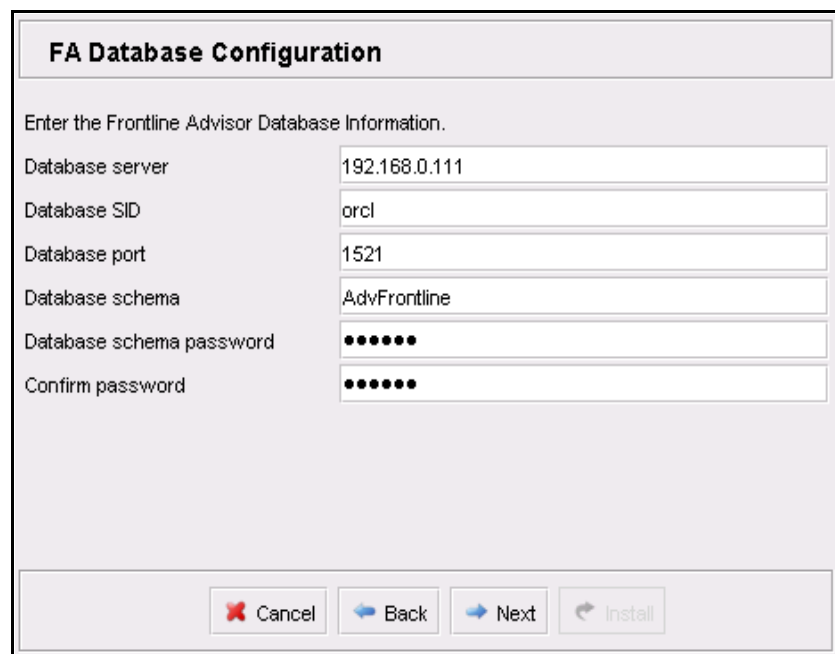
20. Click Next. For Releases 8.1.2 to 8.1.4, the FA Database Configuration screen for either MS SQL Server or Oracle displays.

Starting in Release 8.1.5, the installer does not include a configuration screen for the FA database. If you are installing Advisors Cisco Adapter 8.1.5 or later, go to [Step 22](#).



The screenshot shows a window titled "FA Database Configuration". Below the title bar, it says "Enter the Frontline Advisor Database Information." There are six input fields: "Database server" with the value "192.168.0.111", "Database name" with "frontline\_advisor", "Database port" with "1433", "Database user name" with "advisor", "Database password" with masked characters "••••••", and "Confirm database password" with masked characters "••••••". At the bottom, there are four buttons: "Cancel" (with a red X icon), "Back" (with a blue left arrow icon), "Next" (with a blue right arrow icon), and "Install" (with a circular arrow icon).

Figure 115:FA Database Configuration for SQL Server



The screenshot shows a window titled "FA Database Configuration". Below the title bar, it says "Enter the Frontline Advisor Database Information." There are six input fields: "Database server" with the value "192.168.0.111", "Database SID" with "orcl", "Database port" with "1521", "Database schema" with "AdvFrontline", "Database schema password" with masked characters "••••••", and "Confirm password" with masked characters "••••••". At the bottom, there are four buttons: "Cancel" (with a red X icon), "Back" (with a blue left arrow icon), "Next" (with a blue right arrow icon), and "Install" (with a circular arrow icon).

Figure 116:FA Database Configuration for Oracle

21. Complete the required database configuration parameters.

---

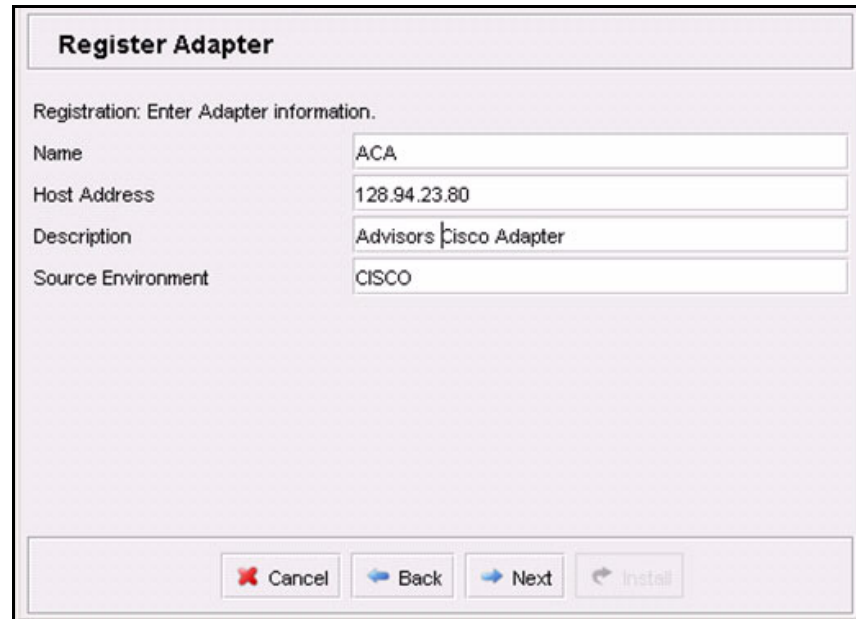
**Note:** When using numerical IPv6 addresses, please enclose the literal in brackets.

---

22. Click Next. The Adapter Port and Registration Option screen displays.

**Figure 117:Adapter Port and Registration Option Screen**

23. Specify the port number for the adapter.
24. Select whether to skip registration of the adapter in the Platform database.  
If you choose to skip registration, click Next and go to [Step 29](#). Otherwise click Next and continue from [Step 25](#).
25. The Register Adapter screen displays.



The image shows a web-based registration form titled "Register Adapter". Below the title, it says "Registration: Enter Adapter information." There are four input fields: "Name" with the value "ACA", "Host Address" with the value "128.94.23.80", "Description" with the value "Advisors Cisco Adapter", and "Source Environment" with the value "CISCO". At the bottom of the form, there are four buttons: "Cancel" (with a red X icon), "Back" (with a blue left arrow icon), "Next" (with a blue right arrow icon), and "Install" (with a circular refresh icon).

| Register Adapter                                                                        |                        |
|-----------------------------------------------------------------------------------------|------------------------|
| Registration: Enter Adapter information.                                                |                        |
| Name                                                                                    | ACA                    |
| Host Address                                                                            | 128.94.23.80           |
| Description                                                                             | Advisors Cisco Adapter |
| Source Environment                                                                      | CISCO                  |
| <div><span>Cancel</span> <span>Back</span> <span>Next</span> <span>Install</span></div> |                        |

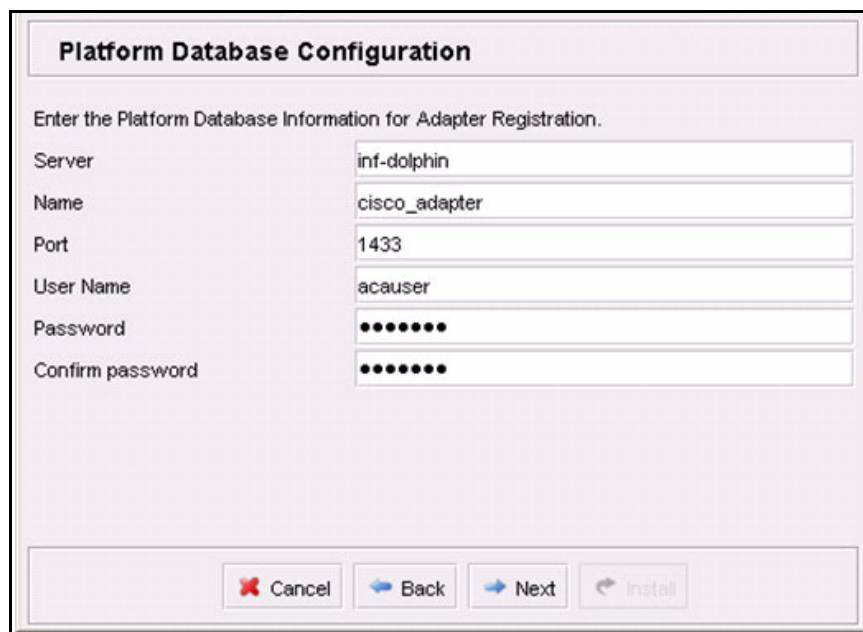
**Figure 118: Register Adapter Screen**

26. Enter the Name, Host Address, Description and Source Environment data for the adapter, and click Next.
27. The Platform Database Configuration screen displays.

**Basic Oracle Database:** See [Figure 119](#).

Enter the Server, Name, Port, User Name, Password and Confirm password data for the Platform database into which the adapter is to be registered. Click Next.





**Platform Database Configuration**

Enter the Platform Database Information for Adapter Registration.

|                  |               |
|------------------|---------------|
| Server           | inf-dolphin   |
| Name             | cisco_adapter |
| Port             | 1433          |
| User Name        | acausser      |
| Password         | ••••••        |
| Confirm password | ••••••        |

Cancel Back Next Install

**Figure 119:Platform Database Configuration Screen – Basic Oracle**

**Oracle RAC Database:** See [Figure 120](#).

Enter the database schema and schema password for the Platform database into which the adapter is to be registered. Also enter the location of the file that contains the RAC JDBC URL (you should have the freeform JDBC URL in a text file). If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator. Click Next.



**Advisors Cisco Adapter Installer Wizard**

**Genesys**

**Platform Database Configuration - RAC**

|                  |  |
|------------------|--|
| Database schema  |  |
| Password         |  |
| Confirm password |  |

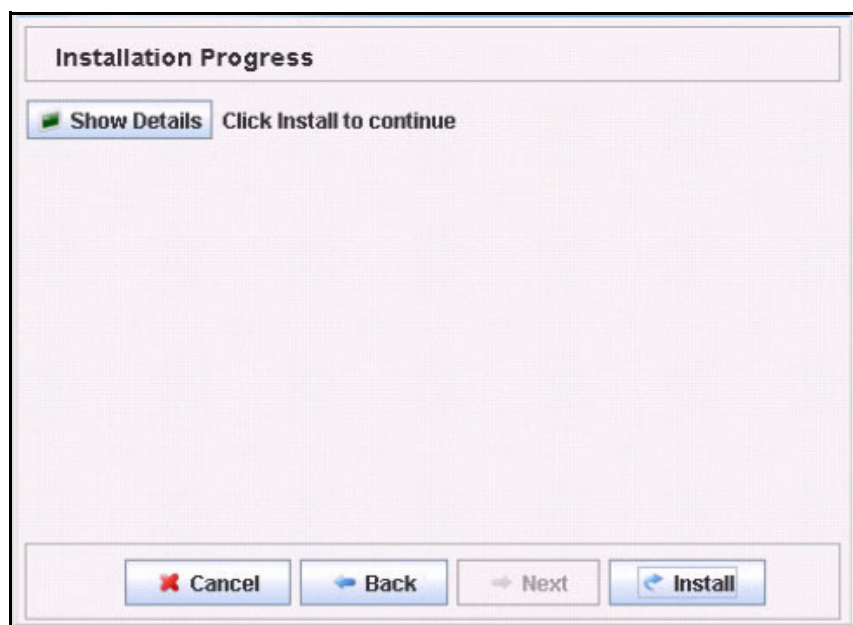
Please locate the file with RAC JDBC URL.

Locate file:  Select File

Cancel Back Next Install

**Figure 120:Platform Database Configuration screen – Oracle RAC**

28. The Installation Progress screen displays.



**Figure 121:Installation Progress**

29. Click Show Details then Install.
30. Verify that there are no errors during installation.
31. In the Services Control Panel applet, verify that an Advisors Cisco Adapter service is installed. If the option to start the service was selected earlier, the service's status should be Started. See Figure 122 on [page 243](#).

---

**Note:** All database passwords used by the Cisco Adapter application are encrypted and saved in the `..GCTI\Advisors\CiscoConnector\conf\cisco_connector.properties` file.

To change the password see "Changing Encrypted Passwords After Installation" on [page 145](#).

---

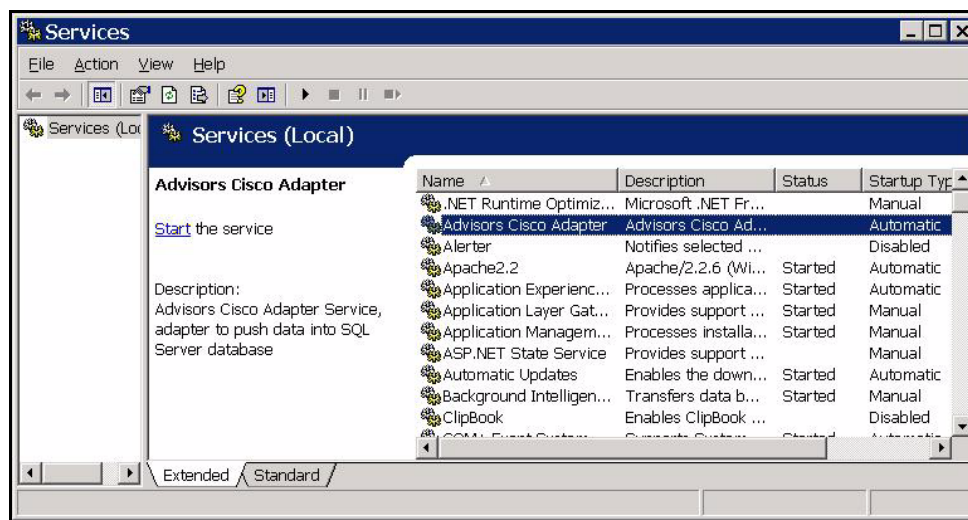


Figure 122: Services (Local) Screen

End of procedure

## Deploying Multiple Instances of the Cisco Adapter on a Single Server

You can deploy multiple instances of the Cisco Adapter on a single server.

### Procedure:

#### Deploying multiple instances of Cisco Adapter on a single server

##### Prerequisites

It is recommended that each Cisco Adapter instance have its own database. Therefore, when creating the Cisco Adapter database in step 9 in the preceding procedure, you should use different names for each database instance.

##### Start of procedure

1. Run the `aca-installer-<version>.jar` file.
2. In the Server Install Type screen (Figure 105 on [page 230](#));
  - a. Verify that the Install the service is preselected (this is selected by default, and cannot be changed).
  - b. Ensure that the Start the Service check box is unchecked.

3. Each Cisco Adapter instance must be installed in a different directory. For example, the first instance could be located at:

`C:\Program Files\GCTI\Advisors\CiscoAdapter`

and the second instance could be located at:

`C:\Program Files\GCTI\Advisors\CiscoAdapter2.`

This includes the log and data directories as well. The Cisco Adapter instance must also use a different port number than the other instances installed on the machine.

Multiple Cisco Adapters can be installed to provide metrics from separate HDS/AWDB source environments.

4. During the install, the following error will come up:

```
[exec] wrapper | CreateService failed — the specified service
already exists. (0x431)
```

Ignore this error: the missing service will be installed in step 5.

5. Once the adapter has been installed, navigate to the `\conf` folder.
  - a. Locate and edit the file `wrapper.conf`.
    - i. Search for the string `# Name of service`.
    - ii. Edit the parameter below it (`wrapper.ntservice.name=`) so that the service name is different from the original instance. For example, 'Advisors Cisco Adapter 2'.
    - iii. Edit the next parameter (`wrapper.ntservice.displayname=`), so that the display name differs from the original instance. This is the name that will appear in the NT Services dialog. There's no need for it to match the name above.
    - iv. Save and close the file.
  - b. Navigate to the `/bin` folder of the second installation, and execute the file `Install-Adapter-NT.bat`. This installs the renamed service. You can then locate and start the service in the Services Control Panel applet.

**End of procedure**

# Troubleshooting Installation Errors

The following are parameter validation errors that you may encounter at the end of installation:

**Table 9: Installation Error Messages**

| Error Message                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Cause                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <pre>[java] Failed to connect to the database using connection URL: [java] jdbc:sqlserver://192.168.xx.yy:nnn;DatabaseName=ys_cadb;user=sa;password=very_secure_pwd;selectMethod=cursor [java] The following exception was thrown: com.microsoft.sqlserver.jdbc.SQLServerException: The TCP/IP connection to the host 192.168.xx.yy, port nnn has failed. Error: "Connection refused. Verify the connection properties, check that an instance of SQL Server is running on the host and accepting TCP/IP connections at the port, and that no firewall is blocking TCP connections to the port.</pre>          | Wrong database server name / IP address or port number |
| <pre>[java] Failed to connect to the database using connection URL: [java] jdbc:sqlserver://192.168.xx.yy:nnnn;DatabaseName=NotAPlatformDB;selectMethod=cursor;user=sa;password=very_secure_pwd [java] The following exception was thrown: com.microsoft.sqlserver.jdbc.SQLServerException: The TCP/IP connection to the host 192.168.xx.yy, port nnnn has failed. Error: "connect timed out. Verify the connection properties, check that an instance of SQL Server is running on the host and accepting TCP/IP connections at the port, and that no firewall is blocking TCP connections to the port."</pre> | Wrong database name                                    |
| <pre>[java] Exception while connecting: Login failed for user 'badUserId'. [java] url used: jdbc:sqlserver://192.168.xx.yy:nnnn;DatabaseName=ys_cadb; selectMethod=cursor;user=badUserId;password=very_secure_ password</pre>                                                                                                                                                                                                                                                                                                                                                                                  | Wrong database user name or password                   |

**Table 9: Installation Error Messages (Continued)**

| Error Message                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Cause                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <pre>[java] Exception in thread "main" java.security.InvalidParameterException: ERROR: Failed to verify validity of the JDK 1.6 located at /home/yevgeny/dev/java/j2sdk1.4.2_08.     [java] ERROR: Invalid JDK version found at /home/yevgeny/dev/java/j2sdk1.4.2_08, the version must be at least 1.6, but was 1.4     [java] at com.informiam.installer.jdk.JdkVersionChecker.checkJdk (JdkVersionChecker.java:66)     [java] ERROR: Failed to verify validity of the JDK 1.6 located at /home/yevgeny/dev/java/j2sdk1.4.2_08.     [java] at com.informiam.installer.jdk.JdkVersionChecker.main (JdkVersionChecker.java:81)</pre>                                                                                                                                                                                                                                                                                                               | Wrong path to JDK or wrong version of the JDK specified.                                                                                                                                                         |
| <pre>Apr 11, 2011 3:53:46 PM oracle.jdbc.driver.OracleDriver registerMBeans WARNING: Error while registering Oracle JDBC Diagnosability MBean. java.security.AccessControlException: access denied (javax.management.MBeanTrustPermission register) at java.security.AccessControlContext.checkPermission(Unknown Source) at java.lang.SecurityManager.checkPermission(Unknown Source)at com.sun.jmx.interceptor.DefaultMBeanServerInterceptor.checkMBeanTr ustPermission(Unknown Source) at com.sun.jmx.interceptor.DefaultMBeanServerInterceptor.registerMBea n(Unknown Source) at com.sun.jmx.mbeanserver.JmxMBeanServer.registerMBean(Unknown Source) at oracle.jdbc.driver.OracleDriver.registerMBeans(OracleDriver.java:3 60) at oracle.jdbc.driver.OracleDriver\$1.run(OracleDriver.java:199) at java.security.AccessController.doPrivileged(Native Method) at oracle.jdbc.driver.OracleDriver.&lt;clinit&gt;(OracleDriver.java:195)</pre> | <p>Produced in error and can be ignored.</p> <p>Displays in the Errors tab when installing Cisco Adapter with Oracle JDBC driver ojdbc6-11.2.0.2.0, and accurately reports that installation was successful.</p> |
| <pre>Exception in thread "AWT-EventQueue-0" java.lang.ArrayIndexOutOfBoundsException: 32 at sun.font.FontDesignMetrics.charsWidth(Unknown Source) at javax.swing.text.Utilities.getTabbedTextOffset(Unknown Source) at javax.swing.text.Utilities.getTabbedTextOffset(Unknown Source) at javax.swing.text.Utilities.getTabbedTextOffset(Unknown Source) at javax.swing.text.PlainView.viewToModel(Unknown Source) at javax.swing.text.FieldView.viewToModel(Unknown Source) at javax.swing.plaf.basic.BasicTextUI\$RootView.viewToModel(Unknown Source) at javax.swing.plaf.basic.BasicTextUI.viewToModel(Unknown Source)</pre>                                                                                                                                                                                                                                                                                                                   | Produced in error and can be ignored.                                                                                                                                                                            |
| <pre>[loadfile] Unable to load file: java.io.FileNotFoundException: C:\ (The system cannot find the path specified)</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Produced in error and can be ignored.                                                                                                                                                                            |

## 9

## Deploying Contact Center Advisor and Workforce Advisor

This section describes how to install Contact Center Advisor, Workforce Advisor, and the Genesys Advisor browser. It contains the following sections:

- [Deployment Notes, page 248](#)
- [Prerequisites, page 248](#)
- [Deploying CCAdv/WA Modules – 8.1.5, page 248](#)
- [Deploying CCAdv/WA Modules – 8.1.2 to 8.1.4, page 272](#)
- [Configuring Metric Graphing Properties, page 296](#)
- [Stopping and Starting XML Generator and CCAdv Web Service, page 302](#)
- [Modifying the XMLGen Configuration, page 303](#)
- [Configuring Forecast Metric Graph Shapes, page 305](#)
- [Notes for the Data Source Database Name, page 306](#)
- [JDBC Data Source Error Logging in XML Generator, page 306](#)
- [Custom Time Zones, page 307](#)
- [Changing the Time Period of Agent Groups Metrics from Now to 30 Mins after Installation, page 308](#)
- [Deploying the Genesys Advisors Browser, page 309](#)
- [Formatting Alert Messages Sent by Advisors, page 312](#)
- [Disabling CCAdv Features, page 317](#)
- [Importing Contact Groups into Advisors, page 318](#)
- [Troubleshooting Installation Errors, page 328](#)

---

## Deployment Notes

- Install Genesys Adapter if you are using a Genesys CTI installation. For Cisco installations, no adapter is required.

---

## Prerequisites

- Please see “Deployment Prerequisites” on [page 25](#).
- For each physical server on which you install an Advisors application (such as Contact Center Advisor or Workforce Advisor), you must install Platform.
- XMLGen requires Advisors Platform to be installed.
- A Metrics Graphing database must be installed if either XMLGen, Workforce Advisor, or Dashboard is installed. To create this database, see either:
  - Chapter 2, “Creating a SQL Server Database,” on [page 77](#), or;
  - Chapter 3, “Creating an Oracle 11g Database,” on [page 93](#).
- Contact Center Advisor and Workforce Advisor require database-level connectivity between the Advisors Platform database and the datasource database—a Genesys metrics database and/or a Cisco ICM AWDB database. To configure the connectivity see Chapter 4 on [page 101](#).

---

## Deploying CCAdv/WA Modules – 8.1.5

If you are installing any or all of the following Advisors modules in Release 8.1.5, use the procedure in this section:

- Contact Center Advisor
- CCAdv XML Generator
- Contact Center Advisor–Mobile Edition
- Workforce Advisor

---

**Note:** Ensure the administrative user(s) have Read access to one or more tenants. The administrative user sees only agent groups and queues in the Base Object Configuration page for the tenant(s) to which he or she has Read access.

---

Starting in Release 8.1.5, an application server and its associated database must be in the same time zone, and the time must be synchronized. The client can be in a different timezone.

Supported workforce management systems:



- Genesys Workforce Management (WFM) 7.6 or 8.1.1 (support for 8.1.1 begins in Advisors Release 8.1.4)
- Aspect eWFM version 6 or higher
- IEX TotalView (SmartSync v1.7 or higher required)

If you are upgrading your version of Contact Center Advisor–Mobile Edition, ensure you read [Procedure: Upgrading an existing CCAdv-ME Installation](#).

For information about deploying smartphone client applications, see the following:

- [Procedure: Deploying Blackberry Clients](#)
- [Procedure: Deploying Android clients](#)
- [“Deploying iPhone/iPad/iPod Touch Client Installation Packages”](#)

---

## **Procedure:** **Deploying CCAdv/WA Modules in Release 8.1.5**

### **Start of procedure**

1. On the system on which you are installing CCAdv or WA, set the Regional and Language Options to the locale for which you want the server to be deployed.

You can reach the Regional and Language Options through the Start menu > Settings > Control Panel. For example, for an English locale, choose English (United States).

2. Run the installation jar file doing one of the following:
  - In a command line window, use the command `java -jar ccawa-installer-<version>.jar`.
  - Double-click the `ccawa-installer-<version>.jar` in the release bundle.

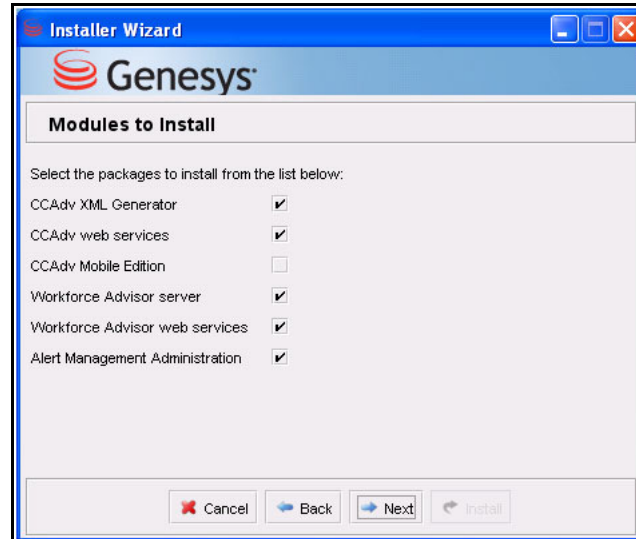
---

**Notes:**

1. Double-clicking may not work due to system settings, but using the command line terminal should always work.
2. For 64-bit systems, if double-clicking to launch the installer, please ensure that the Java instance associated with the `jar` file type is 64-bit. Running the installer with a 32-bit Java instance creates a Windows service with the wrong executable.

---

3. Select the modules you want to install on the server (see the following Figure).



**Figure 123:**Modules to Install screen

Each of the modules can be installed on a different machine; however, Advisors Platform must be installed on each server where a module is installed. When installing multiple modules on the same machine, the underlying components, such as Advisors Platform, are installed only once.

The modules are:

- Contact Center Advisor XML Generator application—Install this module only once in one cluster of Advisor systems.
- Contact Center Advisor Web services, including the dashboard—You can install more than one instance in one deployment of Advisors. You can install it on the same system on which you installed the XML Generator, or on a different system.
- Contact Center Advisor Mobile Edition—Contact Center Advisor application for mobile devices.
- Workforce Advisor server—Install this module only once in one cluster of Advisor systems.
- Workforce Advisor Web service, including the dashboard— You can install more than one instance in one deployment of Advisors. You can install it on the same system on which you installed the Workforce Advisor server, or on a different system.
- Alert Management administration—No additional configuration required.

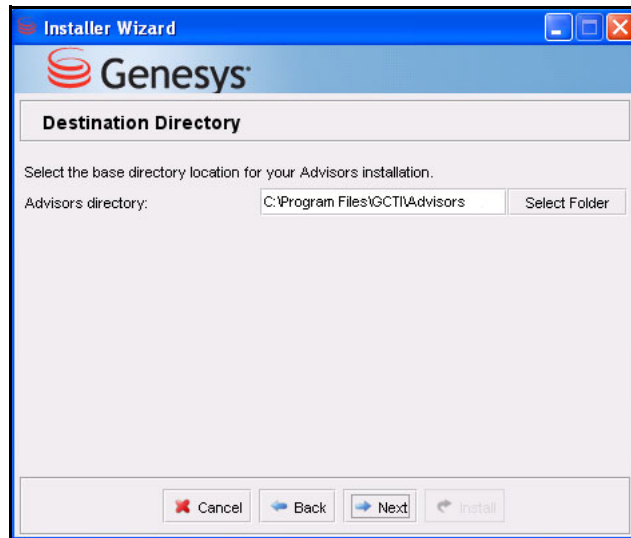
---

**Note:** The screens that follow the Modules to Install screen (Figure 123) can vary slightly based on the packages selected or deselected on this screen.

---

4. Select the destination directory in which the files will be installed (the Advisors base directory).

For all module options, the installation process prompts for the location of the installation directory and Advisors Platform database. Use the same directory and database configuration that was specified when the Advisors Platform database was configured. The default directory is Program Files\GCTI\Advisors.



5. If you selected CCAdv XML Generator on the Modules to Install screen, complete the XML Generator installation, which includes configuration on the following installation screens:
  - Java Development Kit
  - XML Generator (four installation screens)
  - Platform Data source

- Metric Graphing data source

The following Steps provide information about the screens.

The XML Generator installation screens display only if you selected CCAdv XML Generator on the Modules to Install screen.

---

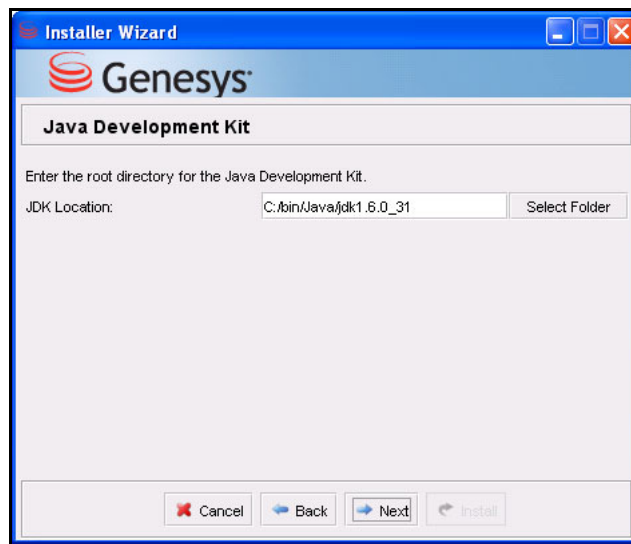
**Note:** The creation of linked servers may be required for either Cisco or Genesys installations.

For a Cisco installation, you will definitely need to link to the server containing the Cisco Intelligent Contact Management AW databases. These must exist before the Advisors installation can proceed.

For a Genesys installation, you may or may not have existing metrics databases. These will either be created during the subsequent Genesys Adapter installation(s), or will have already been created as part of earlier Genesys Adapter installation(s) (for example, for a previous version). The creation of linked servers is required only if the metrics databases exist or will be created on different SQL Server instances.

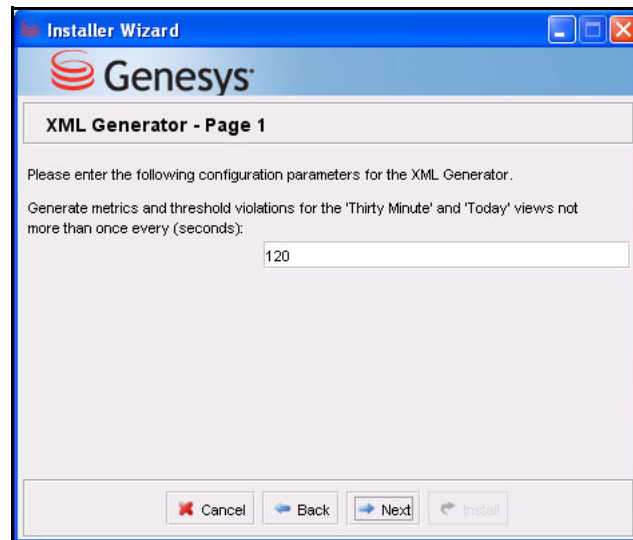
---

- a. Enter or select the folder location for the Java Development Kit.



- b. Enter the interval for the 30-minute and Today processing schedules (see [Figure 124](#)). For example, if you enter 120 seconds for this parameter, XML Generator stores metrics and threshold violations for

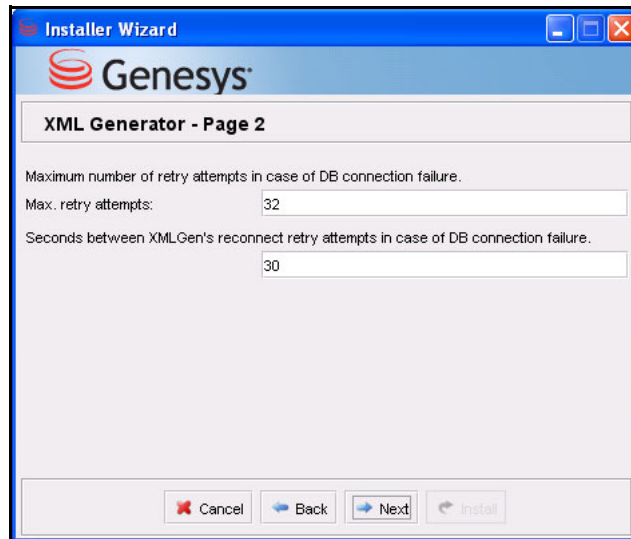
these two views no more often than that. However, XML Generator may store the view data less frequently depending upon load and the complexity of the configuration.



**Figure 124:XML Generator - Page 1**

- c. Enter the maximum number of retry attempts in the event of the database connection failure (see [Figure 125](#)). This parameter governs retrying when XML Generator is already running, after establishing connections at startup.

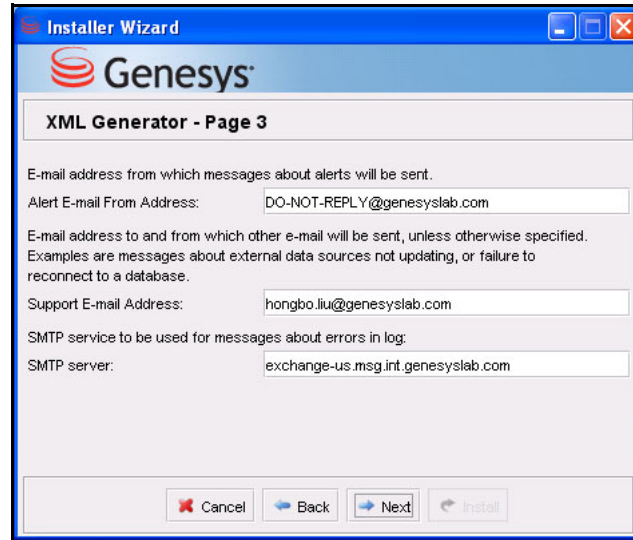
- d. Enter the number of seconds between Contact Center Advisor XML Generator's reconnection attempts in the event of the database connection failure (see [Figure 125](#)). This parameter governs retrying when XML Generator is already running, after establishing connections at startup.



**Figure 125:XML Generator - Page 2**

- e. Enter the e-mail address that will appear in the From: header in e-mail that XML Generator sends about alerts (see [Figure 126](#)).
- f. Enter the e-mail address to which XML Generator will send e-mail for support staff (see [Figure 126](#)). An example is e-mail sent when XML Generator has not been able to connect to an external data source for a configurable number of minutes. This address will also appear in the From: header of these e-mails.

- g. Enter the host name or IP address of the SMTP server that XML Generator will use to send e-mail with ERROR messages (see [Figure 126](#)). You can also see these messages in XML Generator's log file.



**Figure 126:XML Generator - Page 3**

- h. Enter the interval in seconds that controls how frequently snapshots are stored in the metric graphing database (see [Figure 127](#)). For example, if you enter 60 seconds for this parameter, XML Generator stores graphable snapshots no more often than that. However, XML Generator may store the snapshots less frequently depending upon load and the complexity of the configuration.
- i. Select whether graphs should display values from the previous day (see [Figure 127](#)). If you check the Start at midnight checkbox, then graphs will not display values from the previous day. Also, an open graph will delete values from the previous day as it reaches midnight.

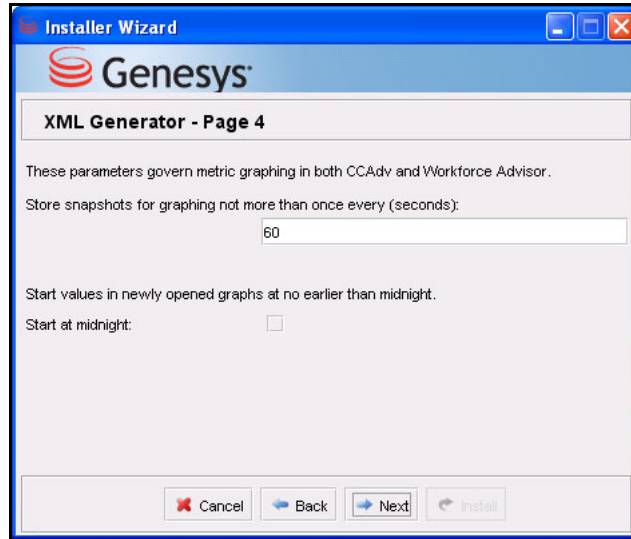


Figure 127:XML Generator - Page 4

- j. For each data source not already in the database, specify the following:
- the database name or linked server name
  - the source type (Genesys or Cisco)
  - (optional) the display name
  - the threshold update delay
  - the Relational Database Management System (RDBMS) type

If you have additional data sources to add, select Add another data source and repeat this step. Up to five data sources may be added using the installer. See [Figure 128](#).

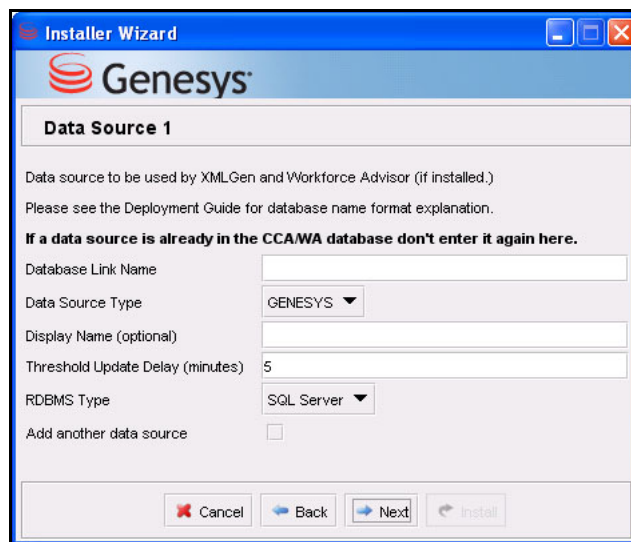


Figure 128:Data Source screen



6. If you selected Contact Center Advisor Mobile Edition on the Modules to Install screen, complete the CCAdv-ME installation, which includes configuration on the following installation screens:

- CCAdv-ME Server Configuration
- CCAdv-ME Trend Charting Configuration

The CCAdv-ME installation screens display only if you selected Contact Center Advisor Mobile Edition on the Modules to Install screen. See [Figure 129](#).

- a. Specify the server configuration:

- Allow client password caching—Determines whether the server will tell its clients whether to cache the password on the client or not. If this option is unchecked, the user will be redirected to the Login view every time he/she launches an application.
- Logo link URL (image link)—Users are redirected to this URL when clicking on the personalized logo in the Login screen.
- URL that Logo links to—This hyper linked image is used to personalize the login page. Administrators can add an image URL of the company's logo which will be visible in the Login page.
- Interval for file purge (ms)—This value (milliseconds) determines the time to delete charting local cache from the server.
- Delay for retries on failed response—This value (milliseconds) determines the delay between retries when a failure occurs.
- Number of retries—Number of times each resource retries to build the response when a failure occurs in the Advisors server.
- Device refresh interval (ms)—This value (milliseconds) represents the refresh time of the client views when auto-refresh is enabled.

The screenshot shows the 'Installer Wizard' window for Genesys. The title bar says 'Installer Wizard' and the Genesys logo is at the top. The main heading is 'CCAdv-ME Server Configuration'. Below this, there are several configuration options with input fields or checkboxes:

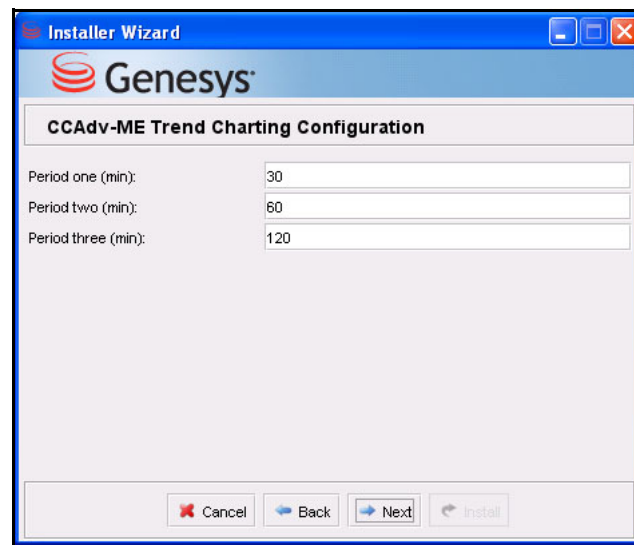
- 'Allow client password caching' is checked with a checkbox.
- 'Logo link URL (image link)' has an empty text field.
- 'URL that Logo links to' has an empty text field.
- 'Interval for file purge (ms)' has a text field with the value '500'.
- 'Delay for retries on failed respon...' has a text field with the value '1000'.
- 'Number of retries' has a text field with the value '10'.
- 'Device refresh interval (ms)' has a text field with the value '60000'.

At the bottom of the window, there are four buttons: 'Cancel' (with a red X icon), 'Back' (with a left arrow icon), 'Next' (with a right arrow icon), and 'Install' (with a circular arrow icon).

**Figure 129:CCAdv-ME Server Configuration**

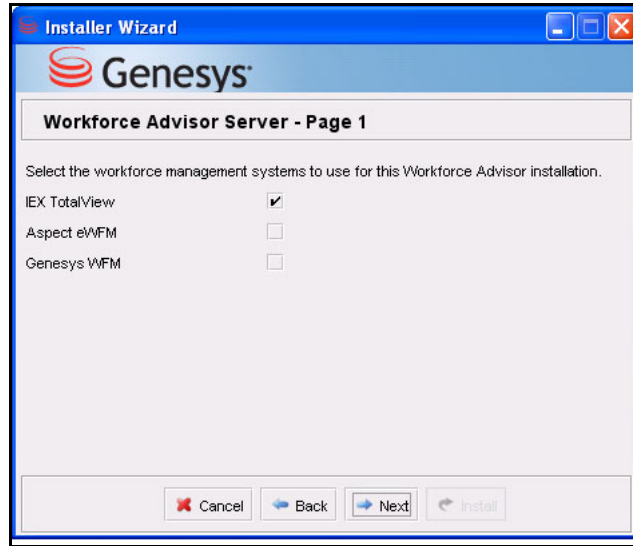
- b.** Enter the time periods for trend charting on the CCAdv-ME Trend Charting Configuration screen (see [Figure 130](#)). The values are in minutes. Period two should be bigger than period one and smaller than period three. Period three should be smaller than the retention period set by the CCAdv server.

**Note:** Genesys recommends that you enter numerical characters only in these fields, such as 30, 60, or 120.



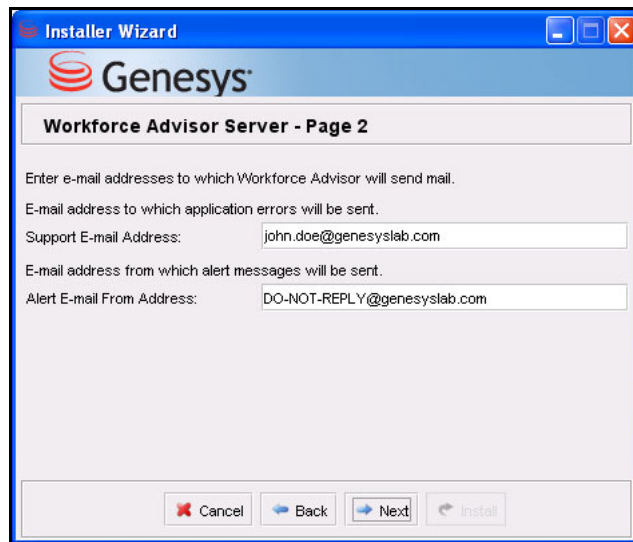
### Figure 130:CCAdv-ME Trend Charting Configuration

7. If you selected Workforce Advisor server on the Modules to Install screen, complete the WA server installation:
  - a. Select your sources for workforce management data. See [Figure 131](#).



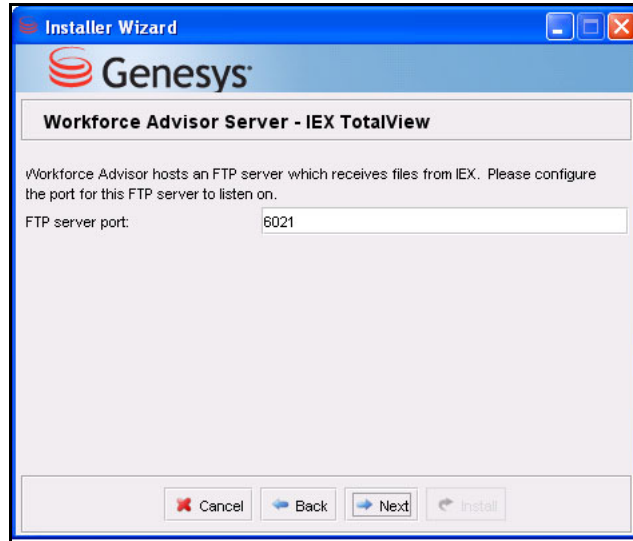
**Figure 131:Workforce Advisor Server - Page 1**

- b. Enter the To and From e-mail addresses for e-mail notifications. See [Figure 132](#).



**Figure 132:Workforce Advisor Server - Page 2**

- c. Enter the FTP Server port number on the IEX TotalView installation screen. See [Figure 133](#).  
The screen displays only if you selected this option on the Workforce Advisor - Page 1 installation screen.



**Figure 133: Workforce Advisor Server - IEX TotalView**

- d. Enter the Aspect eWFM base retrieval URL on the Workforce Aspect eWFM installation screen. See [Figure 134](#).

The Workforce Aspect eWFM screen displays only if you selected this option on the Workforce Advisor Server - Page 1 installation screen.

The base retrieval URL should be `file:///` followed by the location of the eWFM files. For Aspect eWFM, if the component must read or write data kept on a drive accessible over the network, then enter the path name to the directory using the Uniform Naming Convention, which includes the host name and the name of the shared drive.

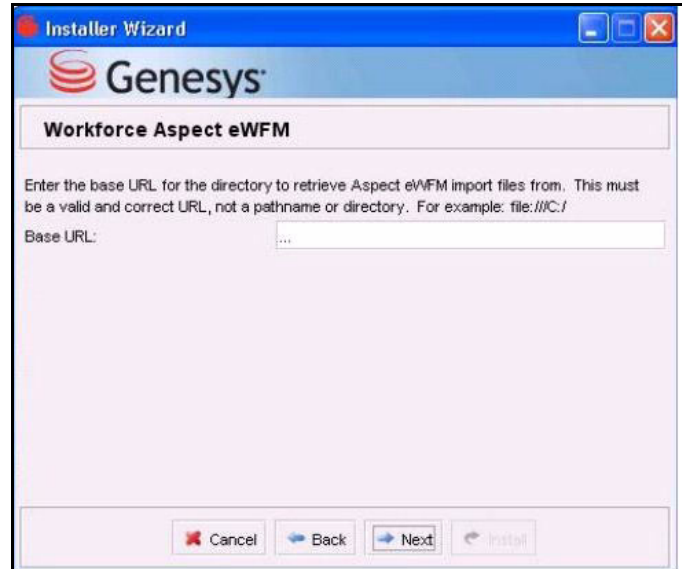
For example;

`//host_name/shared_drive_name/root_directory_name/directory_1_name/directory_2_name.`

You can use forward slashes in the name even on Windows systems. If you use back slashes, they must be escaped.

For example;

`\\\\host_name\\shared_drive_name\\root_directory_name\\directory_1_name\\directory_2_name.`



**Figure 134: Workforce Aspect eWFM**

- e. Enter the Genesys WFM parameters. See [Figure 135](#).

The Workforce Genesys WFM screen displays only if you selected this option on the Workforce Advisor Server - Page 1 installation screen.

- **Base URL:** The base URL should contain the server name or IP address of the machine where the WFM server is installed, as well as the port on which the server is configured and listening. For example, `http://192.168.98.215:5007`.
- **Application name:** The application name of the WFM server as configured in the Configuration Server or Genesys Administrator.
- **User ID:** Enter either a specific user ID to indicate the identity of the requests, or enter 0 (zero) to indicate no user. It is used as a reference in the connection string to Genesys WFM.
- **Polling interval (ms):** The interval at which the Genesys WFM service is polled for forecast data.

- **Number of hours to harvest:** The number of hours of forecast metrics to get during each polling interval.

- 
- Notes:**
- When using numerical IP v6 addresses, please enclose the literal in brackets.
  - For Workforce Advisor installations connecting to Genesys WFM, the server running WA must be able to access your Genesys WFM installation.

To verify this access, from your WA server machine:

1. Successfully ping the server name or IP address specified in the base WFM URL;
2. Successfully telnet the server name or IP address and the port specified in the base WFM URL;
3. Successfully ping the host name of your Genesys WFM instance as it appears in your WFM server's Configuration Manager application.

Your WA server must have access to the WFM server by its associated Configuration Manager host name. If it does not, an `UnknownHostException` occurs because the SOAP API's service locator provides a host name that is not reachable by the WA server.

If you cannot ping or access the Genesys WFM instance using the associated Configuration Manager host name from the machine hosting the WA server, then you must add the following lines to the hosts file on the machine hosting the WA server:

```
For WA connectivity with WFM
```

```
[IP address of WFM server] [Associated Configuration
Manager host name for the WFM instance]
```

```
Example: 192.168.98.229 demosrv.genesyslab.com
```

The hosts file is OS-specific. For example, for Windows 2003, the host file resides in the following location:

```
%SystemRoot%\system32\drivers\etc\
```

---

Installer Wizard

**Genesys**

**Workforce Genesys WFM**

Enter the base URL for the Genesys WFM Web Service

Base URL

Enter the Genesys application name for the WFM application

Application name

Enter the numeric user ID for the Genesys WFM Web Service

User ID

Enter the time interval (in milliseconds) for polling the Genesys WFM service

Polling interval (ms)

How many hours of forecast data should be harvested per poll?

Number of hours to harvest

**Figure 135: Workforce Genesys WFM**

8. Select the time interval to be used to label agent groups metrics on the dashboard – Now or 30 Min – on the Dashboards screen. See [Figure 136](#).

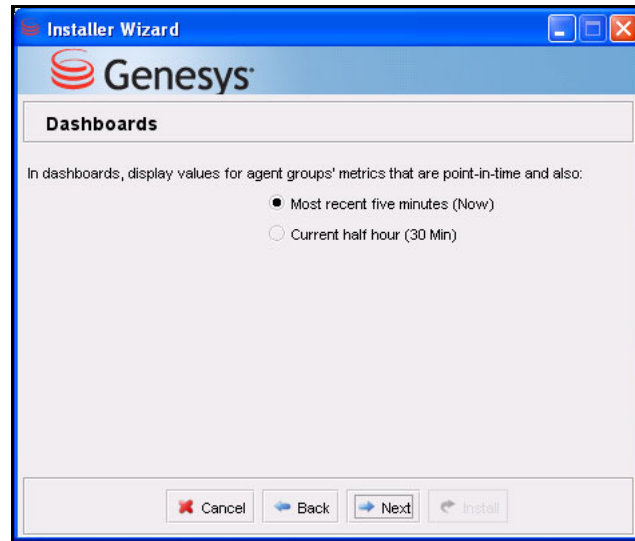
The Dashboards installation screen displays only if you selected CCAdv XML Generator or Workforce Advisor server on the Modules to Install screen.

The configuration on the Dashboards installation screen is a system-wide setting that determines the static text in the dashboards that labels agent group metrics (other than point-in-time). If you choose Now, then the labels will say that the values are from the most recent five minutes. If you choose 30 Min, then the labels will say that the values are from the current half hour.

---

**Note:** To show the values of 30-minute growing metrics for agent groups, you must alter the parameters that choose the metrics imported from the Genesys Stat Server. You cannot do this for metrics imported from CISCO ICM. When the agent group time period is set to 30 minutes, Cisco agent groups display dashes. Genesys recommends that you use the five minutes setting in a mixed environment (both Cisco and Genesys deployments).

---

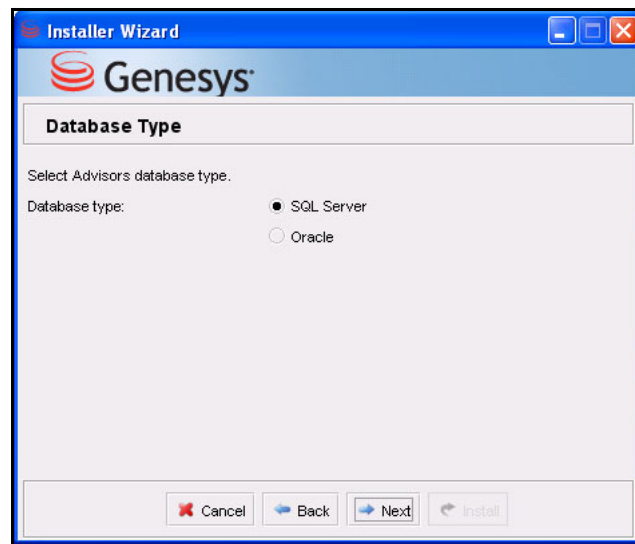


**Figure 136:Dashboards**

9. Select the database type for this installation (see [Figure 137](#)):

- SQL Server  
Click Next and go to [Step 10](#).
- Oracle  
Click Next and go to [Step 12](#).

The following Figure shows the database selection screen.



**Figure 137:Database Type**



10. The Genesys Advisor Platform Database screen for MSSQL is displayed. See [Figure 138](#).

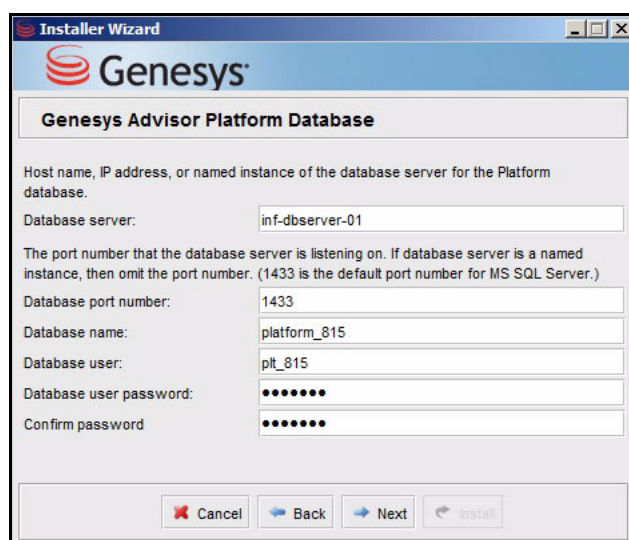
Enter the database connectivity parameters for the already created or upgraded database (that is, the database must be present and at the current version prior to running the installer). These parameters are server (machine), port number, name, user, and password.

---

**Note:** When using numerical IP v6 addresses, please enclose the literal in brackets.

---

If the database server is a named instance, then omit the port number.

The image shows a screenshot of the 'Genesys Advisor Platform Database' configuration window within the 'Installer Wizard'. The window has a title bar with 'Installer Wizard' and standard window controls. Below the title bar is the Genesys logo and the window title 'Genesys Advisor Platform Database'. The main area contains instructions: 'Host name, IP address, or named instance of the database server for the Platform database.' followed by a 'Database server:' field containing 'inf-dbserver-01'. Below this is a note: 'The port number that the database server is listening on. If database server is a named instance, then omit the port number. (1433 is the default port number for MS SQL Server.)' followed by a 'Database port number:' field containing '1433'. Then there are fields for 'Database name:' (platform\_815), 'Database user:' (plt\_815), 'Database user password:' (masked with dots), and 'Confirm password' (masked with dots). At the bottom are four buttons: 'Cancel', 'Back', 'Next', and 'Install'.

**Figure 138: Genesys Advisor Platform Database**

11. Enter the location of the Metric Graphing database. See [Figure 139](#).  
The Metric Graphing Database installation screen displays if you selected CCAAdv XML Generator, Contact Center Advisor Web service, Contact Center Advisor Mobile Edition, Workforce Advisor Web service, or Workforce Advisor server on the Modules to Install screen.  
Specify the connection parameters for the Metric Graphing database, following the onscreen instructions.

---

**Note:** When using numerical IP v6 addresses, please enclose the literal in brackets.

---

The screenshot shows the 'Metric Graphing Database' configuration window in the Genesys Installer Wizard. It contains the following fields and values:

| Field                   | Value             |
|-------------------------|-------------------|
| Database server:        | inf-mgdbserver-01 |
| Database port number:   | 1433              |
| Database name:          | mgdb_815          |
| Database user:          | mg_815            |
| Database user password: | ••••••••          |
| Confirm password:       | ••••••••          |

At the bottom, there are four buttons: Cancel, Back, Next, and Install.

**Figure 139:Metric Graphing Database**

12. If you selected SQL Server as your database type, go to [Step 15](#).  
Select the Oracle setup option that describes your environment (see [Figure 140](#)):
- Select the Basic option if you are using a single-instance Oracle database.
  - Select the RAC connectivity setup option to connect to Oracle RAC.

The screenshot shows the 'Oracle setup type' configuration window in the Genesys Installer Wizard. It contains two radio button options:

| Option                 | Selection                        |
|------------------------|----------------------------------|
| Basic                  | <input type="radio"/>            |
| RAC connectivity setup | <input checked="" type="radio"/> |

At the bottom, there are four buttons: Cancel, Back, Next, and Install.

**Figure 140:Oracle setup type**

13. Click Next. The Genesys Advisor Platform Database screen for Oracle is displayed.

**Basic Option:** Specify the parameters for the Platform Oracle database (see [Figure 141](#)):

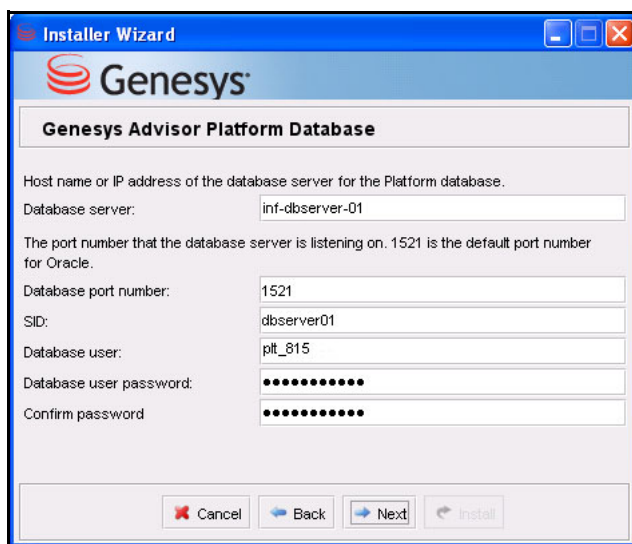
- Database Server—The name or IP address of the host on which the database server is running

---

**Note:** When using numerical IP v6 addresses, please enclose the literal in brackets.

---

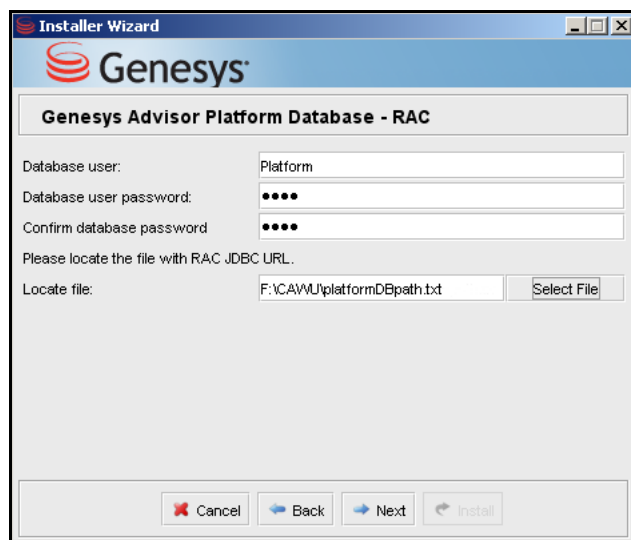
- Database port number—The database server's port number
- SID—Unique name of the database instance.
- Database user and Database user password—The database schema created / used for the Platform database.



**Figure 141: Genesys Advisor Platform Database - Oracle Basic**

**RAC Connectivity Option:** Specify the parameters for the Oracle RAC Platform database (see [Figure 142](#)):

- Database user and Database user password—The database schema and password created / used for the Platform database
- Locate file—Enter the location of the file that contains the RAC JDBC URL (you should have the freeform JDBC URL in a text file). If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator. The installer applies the specified freeform JDBC URL when configuring the datasources.



**Figure 142: Genesys Advisor Platform Database - Oracle RAC**

**14.** Enter the location of the Metric Graphing database.

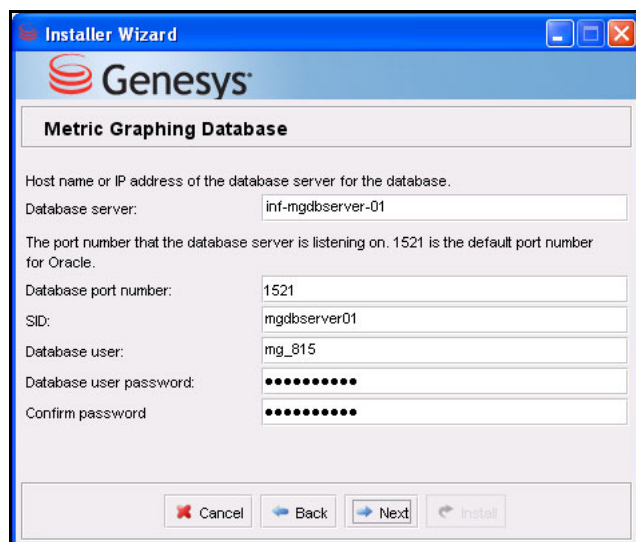
The Metric Graphing Database installation screen displays only if you selected CCAdv XML Generator or Workforce Advisor server on the Modules to Install screen.

**Basic Option:** Specify the connection parameters for the Metric Graphing database following the onscreen instructions. See [Figure 143](#).

---

**Note:** When using numerical IP v6 addresses, please enclose the literal in brackets.

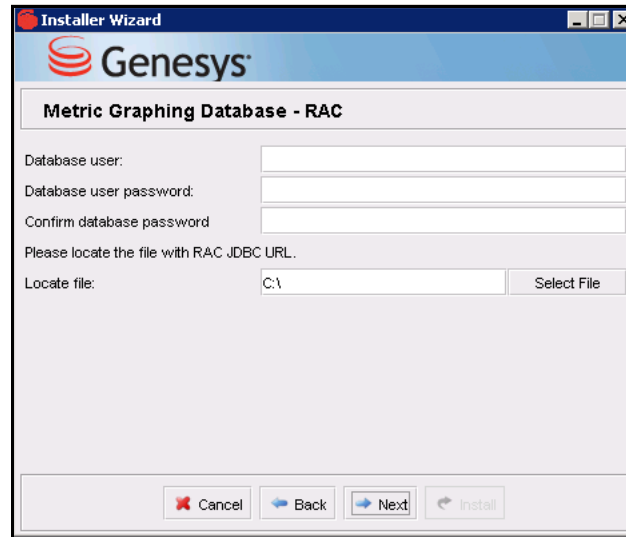
---



**Figure 143: Metric Graphing Database - Oracle Basic**

**RAC Connectivity Option:** Specify the parameters for the Oracle RAC Metric Graphing database (see [Figure 144](#)):

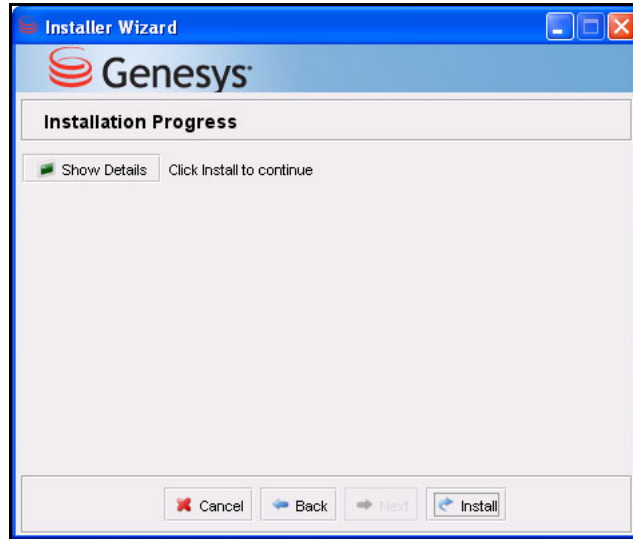
- Database user and Database user password—The database schema and password created / used for the Metric Graphing database
- Locate file—Enter the location of the file that contains the RAC JDBC URL (you should have the freeform JDBC URL in a text file). If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator. The installer applies the specified freeform JDBC URL when configuring the datasources.



**Figure 144: Metric Graphing Database - Oracle RAC**

15. Click Install to complete the installation.

[Figure 145](#) shows the Installation Progress screen.



**Figure 145:Installation Progress screen**

**End of procedure**

---

## **Procedure:**

### **Upgrading an existing CCAdv-ME Installation**

**Purpose:** Use the following procedure if you are upgrading your installation of CCAdv - ME. The procedure ensures you properly prepare your system to accept a new version of the application.

#### **Start of procedure**

1. Uninstall the Mobile Edition application:
  - a. Under Advisors root directory, remove the ccadv-me folder.
  - b. Under the <Advisors\_root\_dir>/geronimo-tomcat6-minimal-2.2.1/repository/com/genesyslab/advisors/ folder, remove the ccadv-me-web folder.
  - c. Open the <Advisors\_root\_dir>/geronimo-tomcat6-minimal-2.2.1/var/config/config.xml file, and remove the following line: <module name="com.genesyslab.advisors/ccadv-me-web/[version]/war" />.
  - d. Save the changes and close the file.
2. Deploy the new version.

**End of procedure**

## Deploying Smartphone Client Applications

The following procedures describe how to install the Smartphone Client applications for Blackberry and Android devices:

- [Procedure: Deploying Blackberry Clients](#)
- [Procedure: Deploying Android clients](#)

“[Deploying iPhone/iPad/iPod Touch Client Installation Packages](#)” provides information about installing the Apple (iPhone, iPad, and iPod) clients.

---

### Procedure: Deploying Blackberry Clients

#### Start of procedure

1. Copy the blackberry directory from the software CD to the apache/htdocs folder.
2. From the device, point to the URL of the web server and, in the ota folder inside the appropriate device type, click on the .jad file.

---

**Note:** For Blackberry devices that have a physical keyboard (with or without a touch screen) use the Classic device type. For Blackberry devices that do not have a physical keyboard use the Touch device type.

---

3. Confirm to download and follow the prompts.

#### End of procedure

---

**Note:** The Blackberry app is also distributed via the Blackberry app store.

---

---

### Procedure: Deploying Android clients

#### Start of procedure

1. In the apache/htdocs, create a new directory called android.
2. Copy the .apk file from the software CD and paste it to the android directory.
3. Adjust the download.html file to create a link for the android directory.

4. On the device, click the link for Android and follow the prompts to download the app.

#### End of procedure

---

**Note:** The Android app is also distributed via the Android app store.

---

## Deploying iPhone/iPad/iPod Touch Client Installation Packages

An iPhone, iPad or iPod Touch client application is distributed on the software CD for reference, but is not functional. The functional applications are distributed through the Apple App Store. Use the standard Apple App Store download procedures to obtain the functional app.

---

# Deploying CCAdv/WA Modules – 8.1.2 to 8.1.4

If you are installing any or all of the following Advisors modules in Release 8.1.2 to 8.1.4, use the procedure in this section:

- Contact Center Advisor
- CCAdv XML Generator
- Workforce Advisor
- Alert Management

---

**Note:** Ensure the administrative user(s) have Read access to one or more tenants. The administrative user sees only agent groups and queues in the Object Configuration page for the tenant(s) to which he or she has Read access.

---

---

### Procedure:

## Deploying CCAdv/WA Modules in Releases 8.1.2 to 8.1.4

#### Start of procedure

1. On the system on which you are installing CCAdv or WA, set the Regional and Language Options to the locale for which you want the server to be deployed.  
You can reach the Regional and Language Options through the Start menu



> Settings > Control Panel.

For an English locale, choose English (United States). For a German locale, choose German (Germany).

2. Run the installation jar file by either;
  - Using the command `java -jar ccawa-installer-<version>.jar`; or,
  - Double-clicking the `ccawa-installer-<version>.jar` in the release bundle.

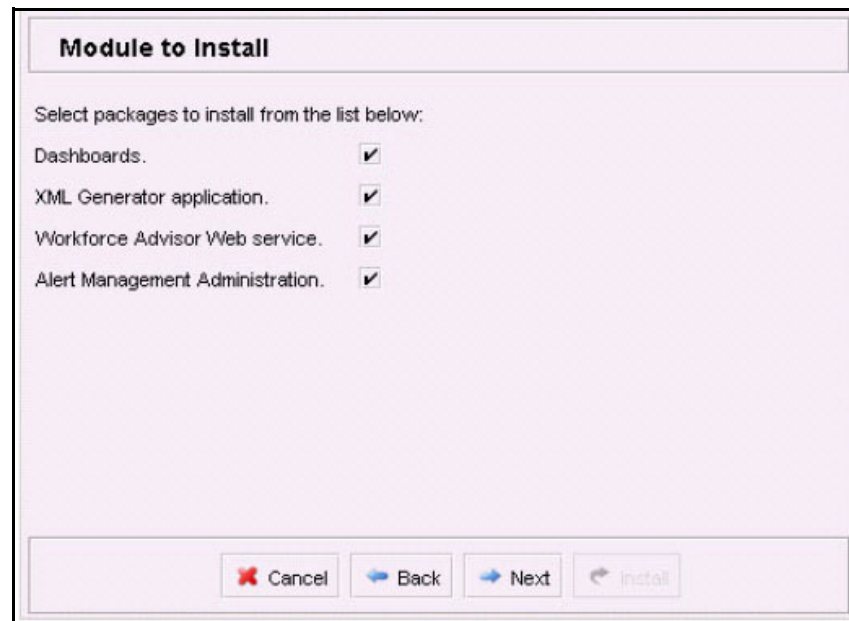
---

**Notes:** 1. Double-clicking may not work due to system settings, but using the command line terminal should always work.

2. For 64-bit systems, if double-clicking to launch the installer, please ensure that the Java instance associated with the `jar` file type is 64-bit. Running the installer with a 32-bit Java instance will create a Windows service with the wrong executable.

---

3. Click Next.  
The Module to Install screen displays (Figure 146 on [page 273](#)).



**Figure 146:Module to Install Screen**

---

**Note:** The screens that follow the Module to Install screen ([Figure 146](#)) can vary slightly based on the packages selected or deselected on this screen.

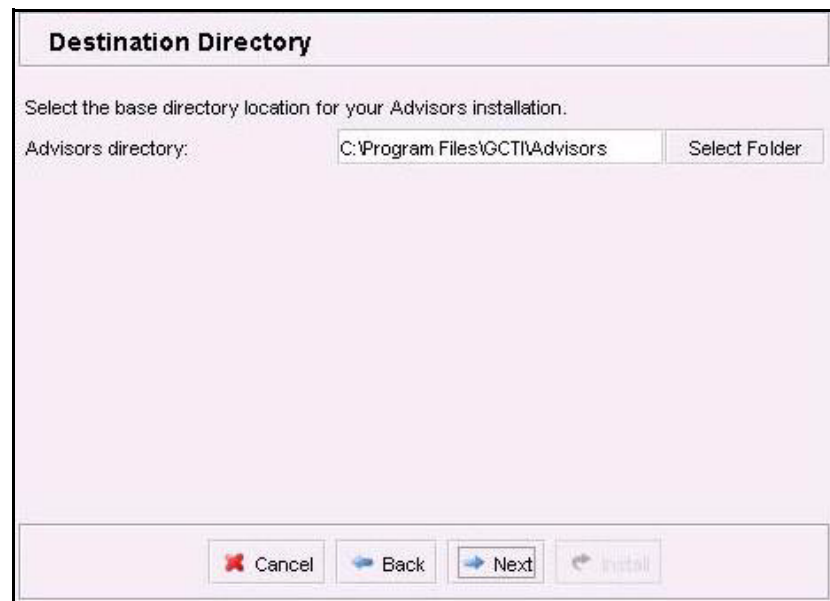
---

4. Each of the module sets can be installed on a different machine; however, Advisors Platform must be installed on each server where a module is installed. When installing multiple modules on the same machine, the underlying components, such as Geronimo, are installed only once.

The module sets are:

- Dashboards:
  - Contact Center Advisor dashboard
  - Workforce Advisor dashboard—Disabled for the user until the Workforce Advisor module is installed.
- XML Generator application—See “Deploying the XML Generator” on [page 286](#).
- Workforce Advisor Web service—Workforce Advisor Web server only (not the Dashboard).
- Alert Management administration—No additional configuration required.

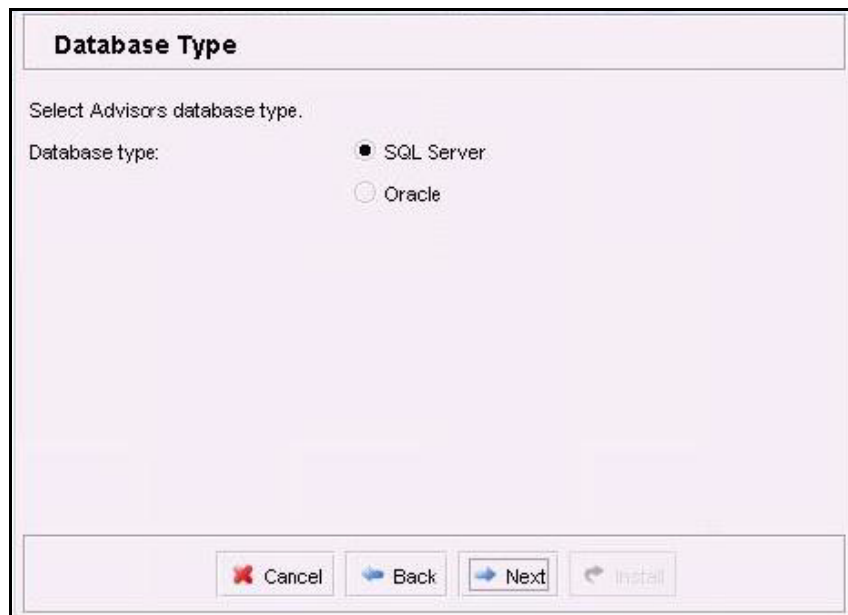
For all options, the installation process prompts for the location of the installation directory and Advisors Platform database. Use the same directory and database configuration that was specified when the Advisors Platform database was configured.



**Figure 147: Destination Directory Screen**

5. Select the destination directory in which the files will be installed (the Advisors base directory).

The default directory is Program Files\GCTI\Advisors. Click Next.



**Database Type**

Select Advisors database type.

Database type:

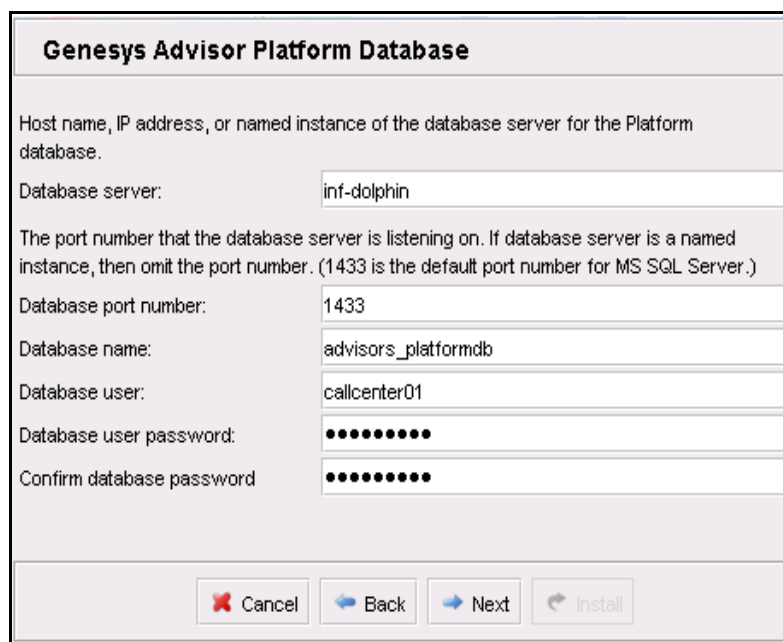
☒ SQL Server

☐ Oracle

Cancel Back Next Install

**Figure 148:Database Type Screen**

6. Select the database type for this installation:
  - SQL Server  
Click Next and go to [Step 7](#).
  - Oracle  
Click Next and go to [Step 14](#).
7. The Genesys Advisor Platform Database screen for MSSQL is displayed.



**Genesys Advisor Platform Database**

Host name, IP address, or named instance of the database server for the Platform database.

Database server: inf-dolphin

The port number that the database server is listening on. If database server is a named instance, then omit the port number. (1433 is the default port number for MS SQL Server.)

Database port number: 1433

Database name: advisors\_platformdb

Database user: callcenter01

Database user password: \*\*\*\*\*

Confirm database password: \*\*\*\*\*

Cancel Back Next Install

**Figure 149:Genesys Advisor Database Screen for MSSQL**

8. Enter the database connectivity parameters for the already created or upgraded database (that is, the database must be present and at the current version prior to running the installer). These parameters are server (machine), port number, name, user, and password.

---

**Note:** When using numerical IP v6 addresses, please enclose the literal in brackets.

---

If the database server is a named instance, then omit the port number. Click Next.

9. For the Dashboard and XML Generator options, the installation process prompts for the location of the Metric Graphing database.

**Metric Graphing - Page 1**

Host name, IP address, or named instance of the database server for the database.

Database server:

The port number that the database server is listening on. If named instance, then omit.

Database port number:

Database name:

Database user:

Database user password:

Confirm password:

**Figure 150: Metric Graphing Screen 1 (MSSQL)—Dashboards and XMLGen**

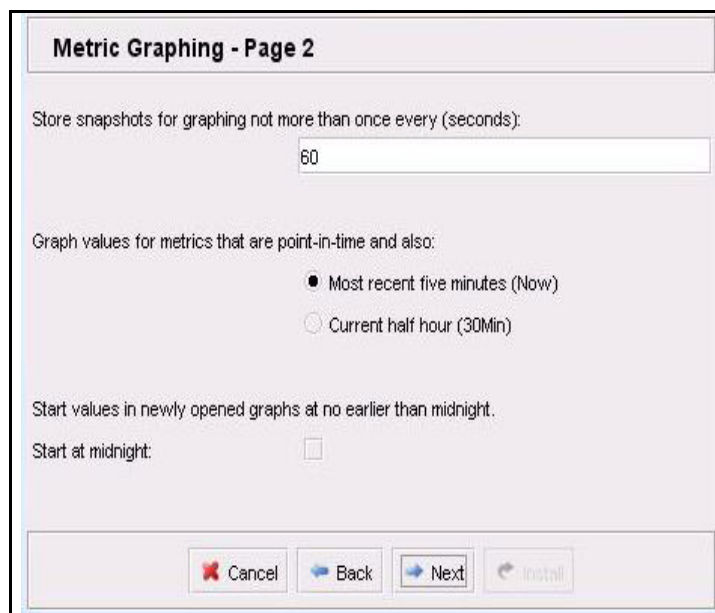
10. Specify the connection parameters for the Metric Graphing database, following the onscreen instructions.

---

**Note:** When using numerical IP v6 addresses, please enclose the literal in brackets.

---

Click **Next** to display the second Metrics Graphing screen.



**Metric Graphing - Page 2**

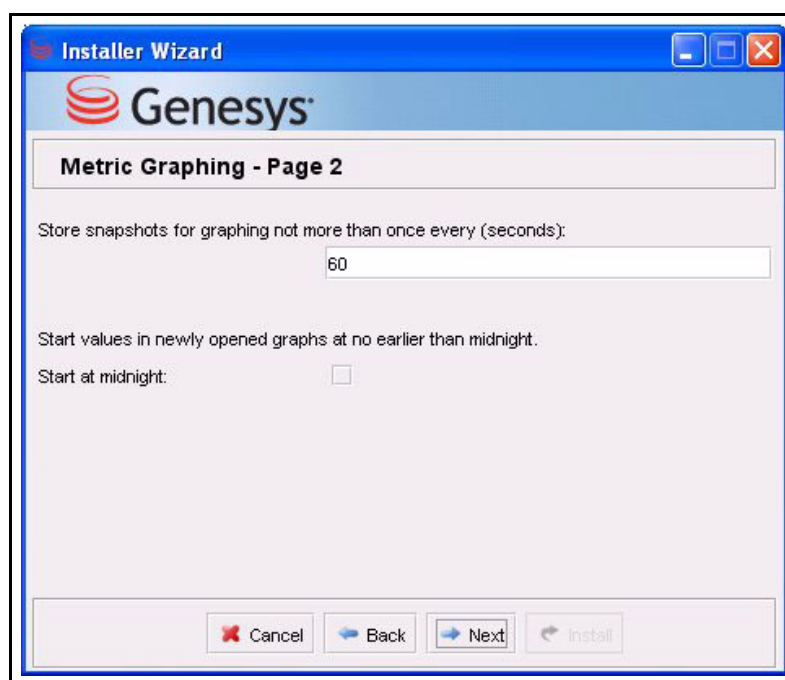
Store snapshots for graphing not more than once every (seconds):  
60

Graph values for metrics that are point-in-time and also:  
☒ Most recent five minutes (Now)  
☐ Current half hour (30Min)

Start values in newly opened graphs at no earlier than midnight.  
Start at midnight: ☐

Buttons: Cancel, Back, Next, Install

**Figure 151:Release 8.1.2 Metrics Graphing Screen 2**



**Installer Wizard**

**Genesys**

**Metric Graphing - Page 2**

Store snapshots for graphing not more than once every (seconds):  
60

Start values in newly opened graphs at no earlier than midnight.  
Start at midnight: ☐

Buttons: Cancel, Back, Next, Install

**Figure 152:Release 8.1.3 Metric Graphing Screen 2**

11. Enter the interval in seconds that controls how frequently snapshots are stored in the metric graphing database. For example, if this parameter is set to 60 seconds, then XML Generator will store graphable snapshots no

more often than that. However, XML Generator may store the snapshots less frequently depending upon load and the complexity of the configuration.

12. Skip this Step if you are running Release 8.1.3 or later software. Beginning in Release 8.1.3, it is unnecessary to use the system-wide setting to specify a time interval for values in the Metric Graphing display. Use the `Time Profile for Charting` option on the Metric Manager page of the Administration module to set the time profile for the metric (which enables the metric for graphing).

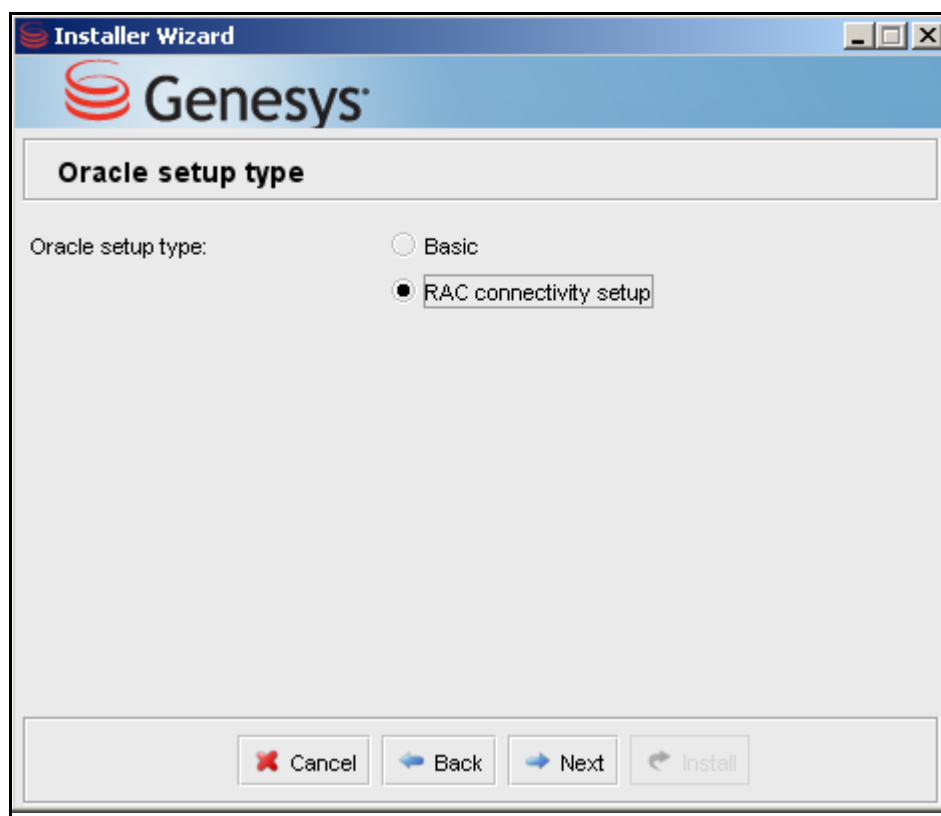
Select the time interval to be used for values in the Metric Graphing display; either `Now` or `30 Min`. This is a system-wide setting that will determine the time period of values displayed in graphs. If you choose `Now`, then the values are those in the dashboard columns titled `Now`, from the most recent five minutes. If you choose `30 Min`, then the values are those in the dashboard columns titled `30 Min`, from the current half hour. The values graphed for point-in-time metrics, that do not have a duration, are not affected by this setting.

13. Select whether graphs should display values from the previous day. If you check the `Start at midnight` checkbox, then graphs will not display values from the previous day. Also, an open graph will delete values from the previous day as it reaches midnight.

14. If you selected SQL Server as your database type, go to [Step 23](#).

If you selected Oracle as the database type, and if the `Oracle setup type` screen is available in your Advisors Contact Center Advisor and Workforce Advisor installer (available starting in Release 8.1.4), select the Oracle setup option that describes your environment (see [Figure 153](#)):

- Select the `Basic` option if you are using a single-instance Oracle database.
- Select the `RAC connectivity` setup option to connect to Oracle RAC.



**Figure 153:**Oracle setup type screen

15. Click Next.
16. The Genesys Advisor Platform Database screen for Oracle is displayed.

**Basic Option:** See [Figure 154](#).

Specify the parameters for the Platform Oracle database:

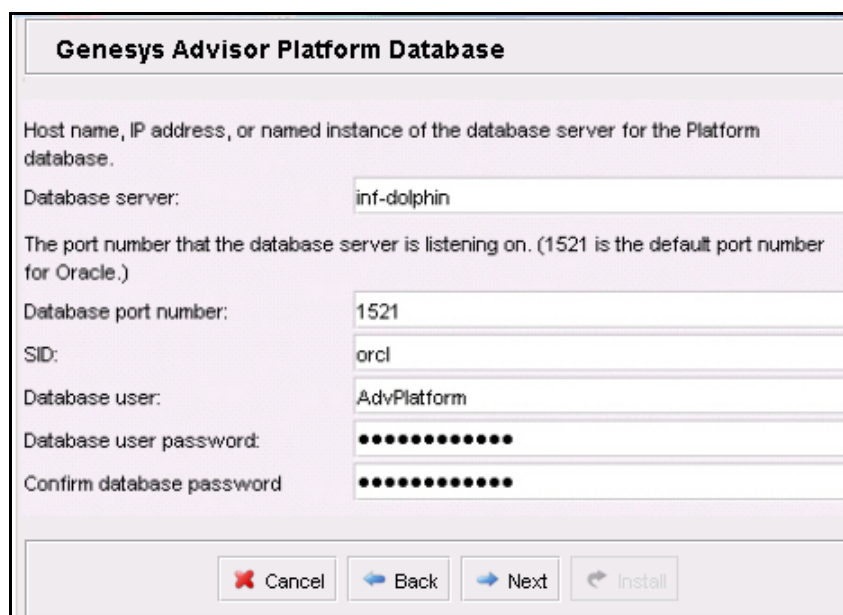
- Database Server—The name or IP address of the host on which the database server is running

---

**Note:** When using numerical IP v6 addresses, please enclose the literal in brackets.

---

- Database port number—The database server's port number
- SID—Unique name of the database instance.
- Database user and Database user password—The database schema created / used for the Platform database.



**Genesys Advisor Platform Database**

Host name, IP address, or named instance of the database server for the Platform database.

Database server: inf-dolphin

The port number that the database server is listening on. (1521 is the default port number for Oracle.)

Database port number: 1521

SID: orcl

Database user: AdvPlatform

Database user password: .....

Confirm database password: .....

Cancel Back Next Install

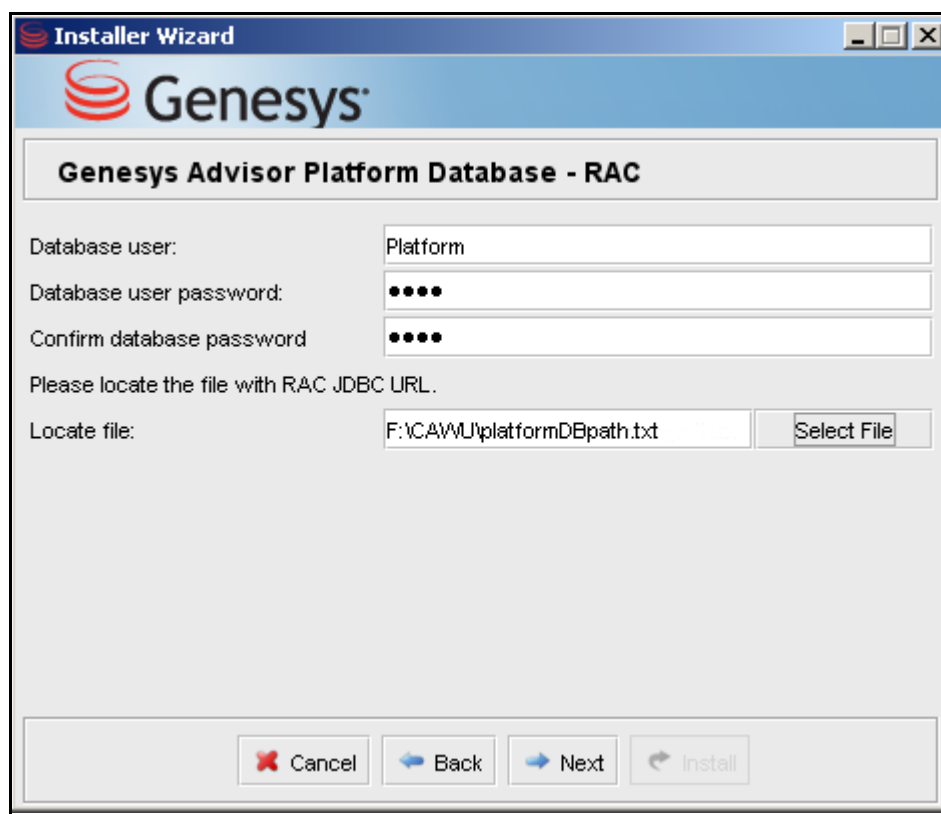
**Figure 154:Advisors Platform Database Screen for Oracle – Basic**

**RAC Connectivity Option:** See [Figure 155](#).

Specify the parameters for the Oracle RAC Platform database:

- Database user and Database user password—The database schema and password created / used for the Platform database
- Locate file—Enter the location of the file that contains the RAC JDBC URL (you should have the freeform JDBC URL in a text file). If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator. The installer applies the specified freeform JDBC URL when configuring the datasources.





**Figure 155:Advisor Platform Database screen – Oracle RAC**

17. Click Next.
18. For the Dashboard and XML Generator options, the installation process prompts for the location of the Metric Graphing database.

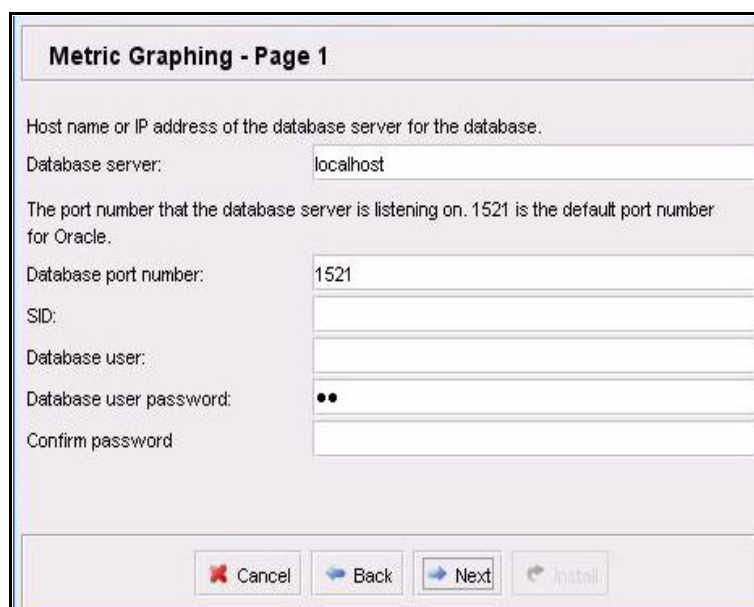
**Basic Option:** See [Figure 156](#).

Specify the connection parameters for the Metric Graphing database following the onscreen instructions.

---

**Note:** When using numerical IP v6 addresses, please enclose the literal in brackets.

---



The image shows a dialog box titled "Metric Graphing - Page 1". It contains several input fields for database configuration. The "Database server" field is set to "localhost". The "Database port number" field is set to "1521". The "SID" field is empty. The "Database user" field is empty. The "Database user password" field is masked with two dots. The "Confirm password" field is empty. At the bottom, there are four buttons: "Cancel", "Back", "Next", and "Install".

**Metric Graphing - Page 1**

Host name or IP address of the database server for the database.

Database server: localhost

The port number that the database server is listening on. 1521 is the default port number for Oracle.

Database port number: 1521

SID:

Database user:

Database user password: ••

Confirm password

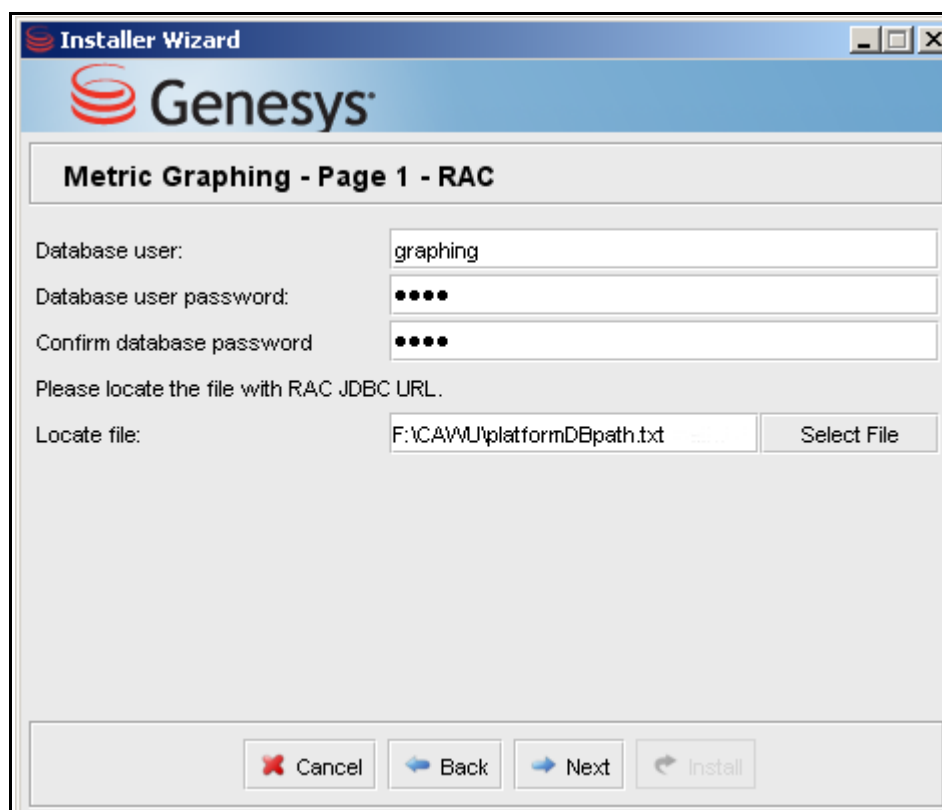
Cancel Back Next Install

**Figure 156: Metric Graphing Screen1 (Oracle Basic)—Dashboards and XMLGen**

**RAC Connectivity Option:** See [Figure 157](#).

Specify the parameters for the Oracle RAC Metric Graphing database:

- Database user and Database user password—The database schema and password created / used for the Metric Graphing database
- Locate file—Enter the location of the file that contains the RAC JDBC URL (you should have the freeform JDBC URL in a text file). If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator. The installer applies the specified freeform JDBC URL when configuring the datasources.

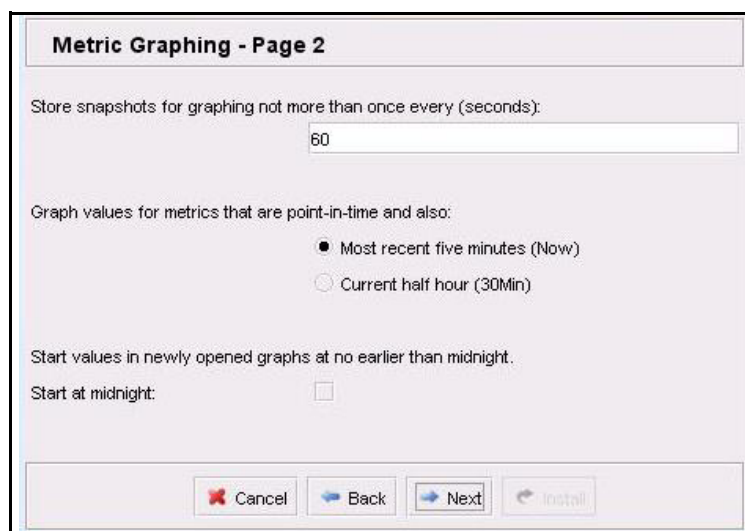


The screenshot shows the 'Metric Graphing - Page 1 - RAC' window of the Genesys Installer Wizard. It contains the following fields and controls:

- Database user:** A text box containing 'graphing'.
- Database user password:** A password box with four dots.
- Confirm database password:** A password box with four dots.
- Please locate the file with RAC JDBC URL:** A text box containing 'F:\CAWU\platformDBpath.txt' and a 'Select File' button.
- Locate file:** A label for the text box above.
- Buttons:** 'Cancel', 'Back', 'Next', and 'Install' at the bottom.

**Figure 157:Metric Graphing Screen1 (Oracle RAC)–Dashboards and XMLGen**

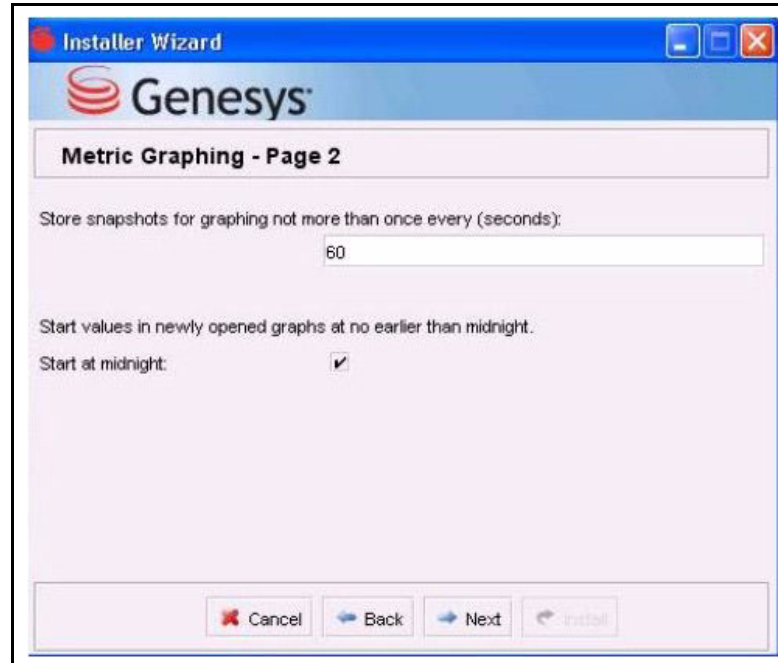
19. Click **Next** to display the second Metrics Graphing screen.



The screenshot shows the 'Metric Graphing - Page 2' window. It contains the following fields and controls:

- Store snapshots for graphing not more than once every (seconds):** A text box containing '60'.
- Graph values for metrics that are point-in-time and also:**
  - ☒ Most recent five minutes (Now)
  - ☐ Current half hour (30Min)
- Start values in newly opened graphs at no earlier than midnight:**
  - ☐ Start at midnight:
- Buttons:** 'Cancel', 'Back', 'Next', and 'Install' at the bottom.

**Figure 158:Release 8.1.2 Metric Graphing Screen 2 (Oracle)**



**Figure 159:Release 8.1.3 Metric Graphing Screen 2 (Oracle)**

20. Enter a value, in seconds, that controls the frequency with which XML Generator stores snapshots in the metric graphing database. XML Generator stores graphable snapshots no more often than the value you enter in this field, however, XML Generator may store the snapshots less frequently depending upon load and the complexity of the configuration.
21. Skip this Step if you are running Release 8.1.3 or later software. Beginning in Release 8.1.3, it is unnecessary to use the system-wide setting to specify a time interval for values in the Metric Graphing display. Use the *Time Profile for Charting* option on the Metric Manager page of the Administration module to set the time profile for the metric (which enables the metric for graphing).  
Select the time interval to be used for values in the Metric Graphing display; either *Now* or *30 Min*. This is a system-wide setting that will determine the time period of values displayed in graphs. If you choose *Now*, then the values are those in the dashboard columns titled *Now*, from the most recent five minutes. If you choose *30 Min*, then the values are those in the dashboard columns titled *30 Min*, from the current half hour. The values graphed for point-in-time metrics, that do not have a duration, are not affected by this setting.
22. Select whether graphs should display values from the previous day. If you check the *Start at midnight* checkbox, then graphs will not display values from the previous day. Also, an open graph will delete values from the previous day as it reaches midnight.

23. Click Next to continue.  
The Java Development Kit screen displays.



**Figure 160:Java Development Kit page**

24. Enter or select the folder location for the Java Development Kit.
25. Click Next.

#### **End of procedure**

#### **Next Steps**

- “Running the Advisors Object Migration Wizard” on [page 397](#).
- “Deploying CCAdv XML Generator Service – 8.1.2 to 8.1.4” on [page 286](#)

## Deploying CCAdv XML Generator Service – 8.1.2 to 8.1.4

This section describes how to install the XML Generator service for Releases 8.1.2 to 8.1.4. For Release 8.1.5, see [“Deploying CCAdv/WA Modules – 8.1.5”](#).

---

**Note:** The creation of linked servers may be required for either Cisco or Genesys installations.

For a Cisco installation, you will definitely need to link to the server containing the Cisco Intelligent Contact Management AW databases. These must exist before the Advisors installation can proceed.

For a Genesys installation, you may or may not have existing metrics databases. These will either be created during the subsequent Genesys Adapter installation(s), or will have already been created as part of earlier Genesys Adapter installation(s) (for example, for a previous version). The creation of linked servers is required only if the metrics databases exist or will be created on different SQL Server instances.

---

### Deploying the XML Generator

If the option is selected on the `Module to Install` screen and you have installed the Platform, the `XML Generator` screen displays.

---

#### Procedure: Deploying the XML Generator

##### Start of procedure

1. Enter the interval for the 30-minute and Today processing schedules. For example, if this parameter is set to 120 seconds, then XML Generator will store metrics and threshold violations for these two views no more often than that. However, XML Generator may store the view data less frequently depending upon load and the complexity of the configuration. See [Figure 161](#).

The screenshot shows a window titled "XML Generator - Page 1". Inside, there is a text area with the instruction: "Please enter the following configuration parameters for the XML Generator." Below this, it says: "Generate metrics and threshold violations for the 'Thirty Minute' and 'Today' views not more than once every (seconds):". A text input field contains the value "120". Further down, it says: "In dashboards, display values for skill groups' metrics that are point-in-time and also:". There are two radio button options: "Most recent five minutes (Now)" which is selected, and "Current half hour (30 Min)". At the bottom, there are four buttons: "Cancel" (with a red X icon), "Back" (with a blue left arrow icon), "Next" (with a blue right arrow icon), and "Install" (with a circular refresh icon).

**Figure 161:XML Generator Page 1**

2. Select the time interval to be used to label agent groups metrics on the dashboard; either Now or 30 Min. This is a system-wide setting that will determine the static text in the dashboards that labels agent group metrics (other than point-in-time). If you choose Now, then the labels will say that the values are from the most recent five minutes. If you choose 30 Min, then the labels will say that the values are from the current half hour.

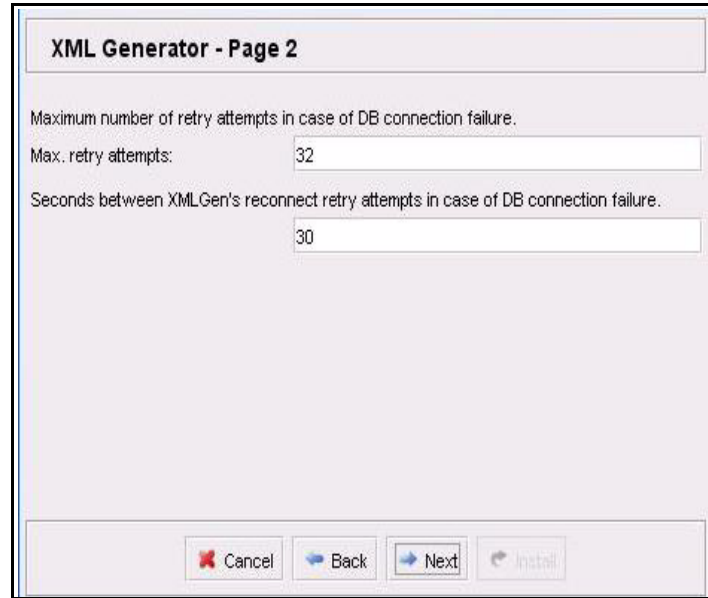
---

**Note:** In order to show the values of 30-minute growing metrics for agent groups, you need to alter the parameters that choose the metrics imported from the Genesys Stat Server. You cannot do this for metrics imported from CISCO ICM. When the agent group time period is set to 30 minutes, Cisco agent groups display dashes. Genesys recommends that you use the five minutes setting in a mixed environment (both Cisco and Genesys deployments).

Also, your selection here will be the same choice shown when you make the same selection during the installation of Workforce Advisor web service. There is only one configuration parameter that records this choice and it applies to both Contact Center Advisor and Workforce Advisor.

---

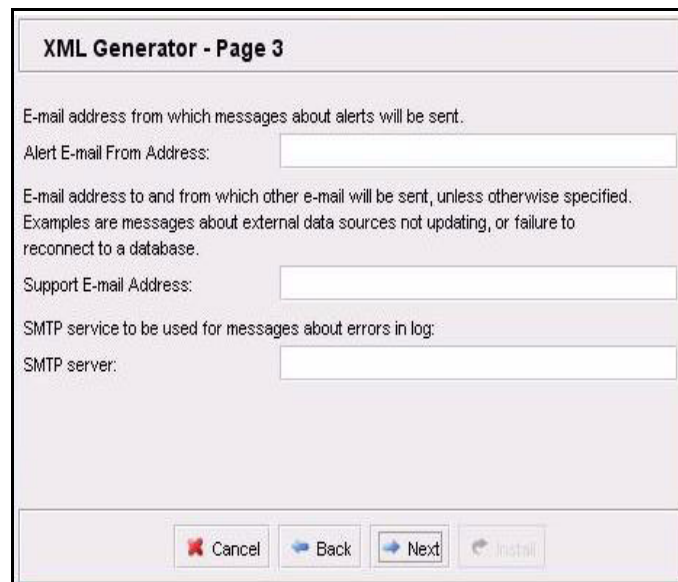
3. Click Next.  
The XML Generator Page 2 screen displays.



The dialog box is titled "XML Generator - Page 2". It contains two input fields. The first is labeled "Max. retry attempts:" with a value of "32". The second is labeled "Seconds between XMLGen's reconnect retry attempts in case of DB connection failure." with a value of "30". At the bottom, there are four buttons: "Cancel", "Back", "Next", and "Install".

**Figure 162:XML Generator Page 2**

4. Enter the maximum number of retry attempts in the event of the database connection failure. This parameter governs retrying when XML Generator is already running, after establishing connections at startup.
5. Enter the number of seconds between Contact Center Advisor XML Generator's reconnection attempts in the event of the database connection failure. This parameter governs retrying when XML Generator is already running, after establishing connections at startup.
6. Click Next.  
The XML Generator - Page 3 displays.



The dialog box is titled "XML Generator - Page 3". It contains three input fields. The first is labeled "Alert E-mail From Address:". The second is labeled "Support E-mail Address:". The third is labeled "SMTP server:". At the bottom, there are four buttons: "Cancel", "Back", "Next", and "Install".

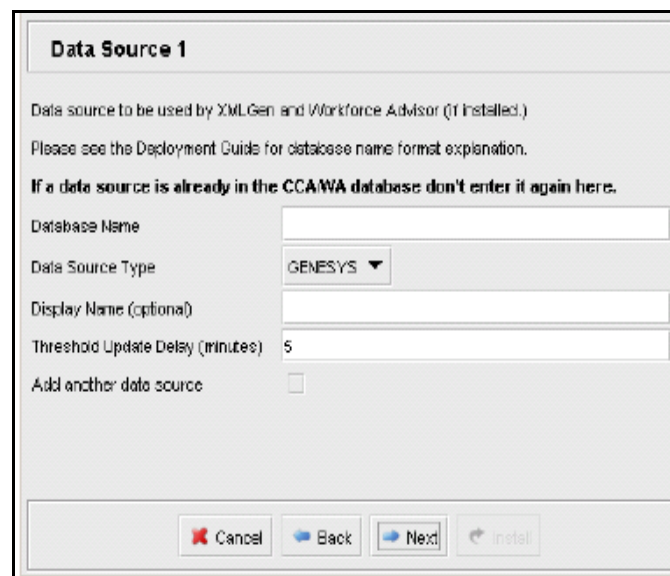
**Figure 163:XML Generator - Page 3**



7. Enter the e-mail address that will appear in the From: header in e-mail that XML Generator sends about alerts.
8. Enter the e-mail address to which XML Generator will send e-mail for support staff. An example is e-mail sent when XML Generator has not been able to connect to an external data source for a configurable number of minutes. This address will also appear in the From: header of these e-mails.
9. Enter the host name or IP address of the SMTP server that XML Generator will use to send e-mail with ERROR messages. You can also see these messages in XML Generator's log file.

10. Click Next.

The data source installer screen is then displayed.



**Figure 164:Data Source 1 Screen**

11. For each data source not already in the database:
  - a. Enter the database name (including the linked server name if applicable).
  - b. Select the source type (Genesys or Cisco)
  - c. (Optional) Enter the display name.
  - d. Enter the threshold update delay.

If you have additional data sources to add, select Add another data source and repeat this step. Up to five data sources may be added via the installer.

12. Click Next.

The Installation Progress screen displays.

13. Click Show Details.

The Installation Progress screen displays.

The progress displays on the Output tab. Any errors display on the Errors tab.

14. Click **Install**.  
The progress displays on the **Output** tab. Any errors display in the **Errors** tab.
15. If no errors display, close the **Finished** popup. The **Output** tab displays “**Build Successful**” and the total time taken for the deployment, or, if errors display, diagnose them in the **Errors** tab. Delete the installation directory and, after diagnosis, reinstall it.

#### End of procedure

---

**Note:** Advisors Platform Database and Metric Graphing Database passwords used by XML Generator application are encrypted and saved in `..\GCTI\Advisors\conf\xmlgen-properties.xml`. To change the password see “Changing Encrypted Passwords After Installation” on [page 145](#).

---

## Workforce Advisor Option – 8.1.2 to 8.1.4

Use the procedure in this section for Release 8.1.2 to 8.1.4. For WA Web Service installation for Release 8.1.5, see “[Deploying CCAdv/WA Modules – 8.1.5](#)”.

If the **Workforce Advisor** option is selected on the **Module to Install** screen, the **Workforce Advisor** screen displays.

Supported workforce management systems:

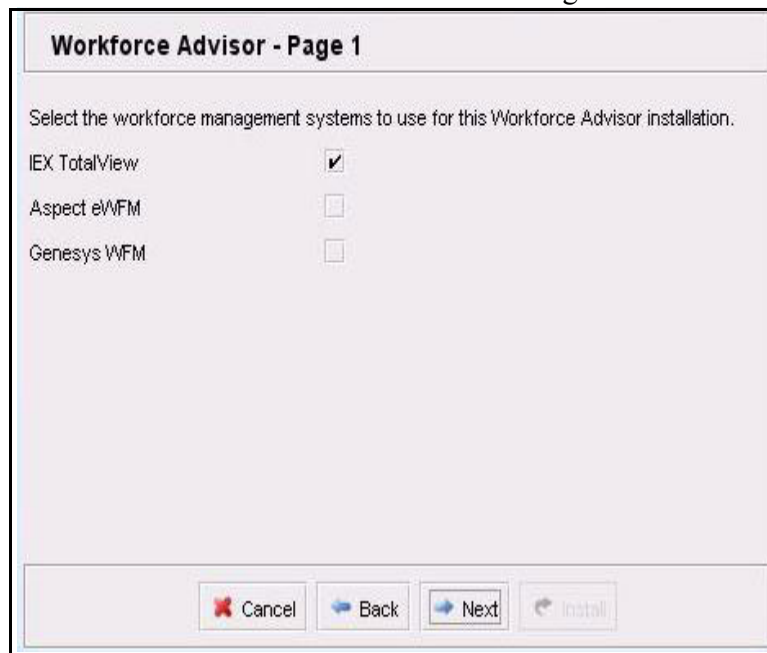
- Genesys Workforce Management (WFM) 7.6 or 8.1.1 (support for 8.1.1 begins in Advisors Release 8.1.4)
- Aspect eWFM version 6 or higher
- IEX TotalView (SmartSync v1.7 or higher required)

---

## Procedure: Deploying Workforce Advisor Option

### Start of procedure

1. Select the sources of the workforce management data. See [Figure 165](#).

A screenshot of the 'Workforce Advisor - Page 1' installation window. The window has a title bar and a main content area. The title bar says 'Workforce Advisor - Page 1'. Below the title bar, there is a text label: 'Select the workforce management systems to use for this Workforce Advisor installation.' Below this label, there are three rows of text, each followed by a checkbox. The first row is 'IEX TotalView' with a checked checkbox. The second row is 'Aspect eWFM' with an unchecked checkbox. The third row is 'Genesys WFM' with an unchecked checkbox. At the bottom of the window, there is a horizontal bar containing four buttons: 'Cancel' (with a red X icon), 'Back' (with a blue left arrow icon), 'Next' (with a blue right arrow icon), and 'Install' (with a green right arrow icon).

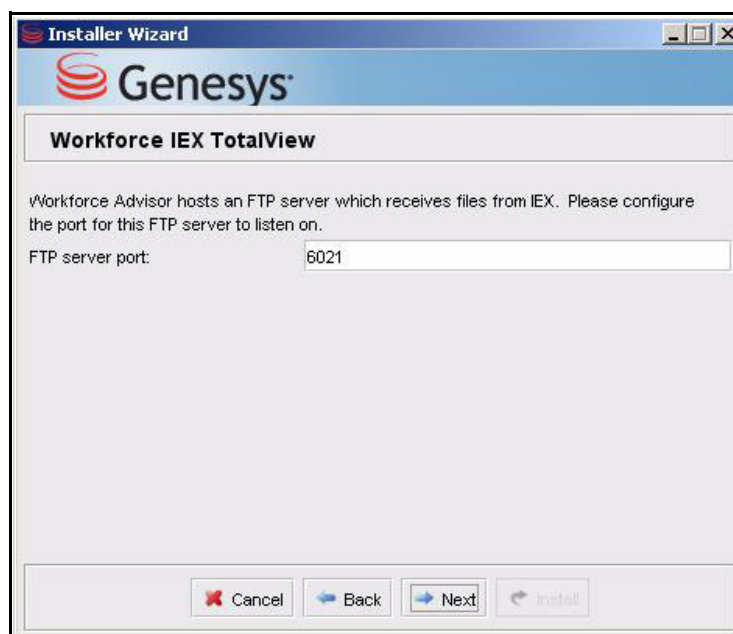
**Figure 165:Workforce Advisor Screen 1**

2. Click Next. The Workforce Advisor - Page 2 displays ([Figure 166 on page 292](#)).

The screenshot shows a configuration window titled "Workforce Advisor - Page 2". The window has a light purple header and a white body. The text inside reads: "In dashboards, display values for skill groups' metrics that are point-in-time and also:". Below this are two radio button options: "Most recent five minutes (Now)" (which is selected) and "Current half hour (30 Min)". Below the radio buttons is the text "Enter e-mail addresses to which Workforce Advisor will send mail." followed by two labels: "E-mail address to which application errors will be sent." and "Support E-mail Address:". Below the "Support E-mail Address:" label is a text input field. Below this is another label: "E-mail address from which alert messages will be sent." followed by the label "Alert E-mail From Address:" and another text input field. At the bottom of the window is a row of four buttons: "Cancel" (with a red X icon), "Back" (with a blue left arrow icon), "Next" (with a blue right arrow icon), and "Install" (with a blue circular arrow icon).

**Figure 166: Workforce Advisor Screen 2**

3. Select the time interval to be used to label agent group metrics on the dashboard; either Now or 30 Min.  
This is a system-wide setting that will determine the static text in the dashboards that labels agent group metrics (other than point-in-time) displayed on the user dashboard. If you choose Now, then the labels will say that the values are from the most recent five minutes. If you choose 30 Min, then the labels will indicate the current half hour.  
  
Note that in order to show the values of 30-minute growing metrics for agent groups, you need to alter the parameters that choose the metrics imported from the Genesys Stats Server. You cannot do this for metrics imported from CISCO ICM. When the agent group time period is set to 30 minutes, Cisco agent groups display dashes. Genesys recommends that you use the five minutes setting in a mixed environment (both Cisco and Genesys deployments).  
  
Note also that your selection here will be the same choice shown when you make the same selection during the installation of Contact Center Advisor's XML Generator. There is only one configuration parameter that records this choice and it applies to both Contact Center Advisor and Workforce Advisor.
4. Enter the To and From e-mail addresses for e-mail notifications.
5. Click Next.  
The Workforce IEX TotalView screen displays if you selected this option (see [Figure 167](#)).



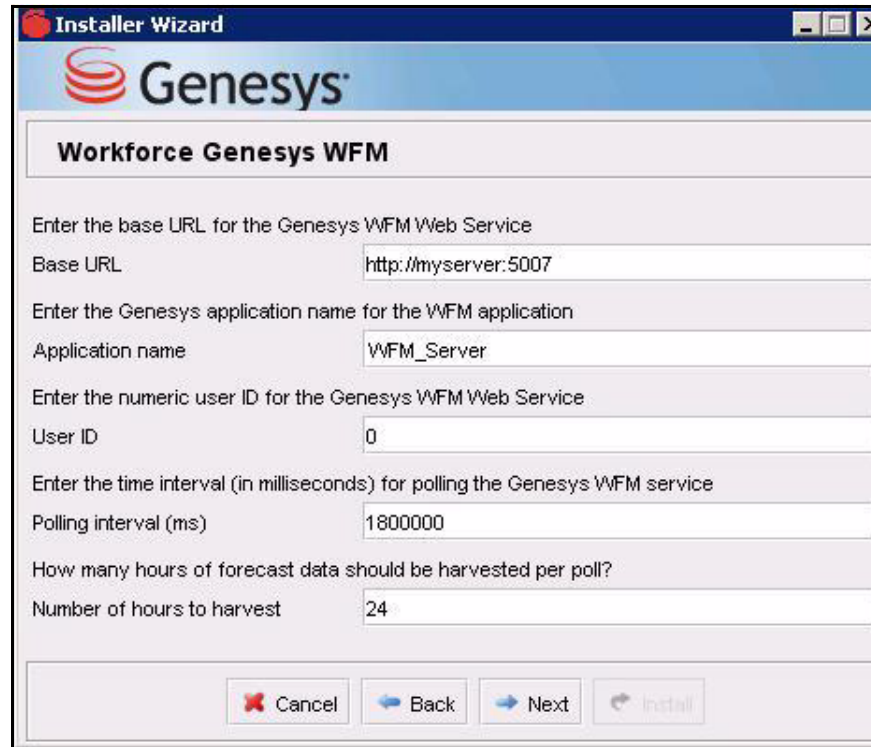
**Figure 167:Workforce IEX TotalView screen**

6. Enter the FTP server port number.
7. Click Next.  
The Workforce Aspect eWFM screen displays if you selected this option (see [Figure 168](#)).



**Figure 168:Workforce Aspect eWFM screen**

8. Enter the Aspect eWFM base retrieval URL.  
The base retrieval URL should be `file:///`, followed by the location of the eWFM files. For Aspect eWFM, if the component must read or write data kept on a drive accessible over the network, then enter the path name to the directory using the Uniform Naming Convention, which includes the host name and the name of the shared drive.  
  
For example;  
`//host_name/shared_drive_name/root_directory_name/directory_1_name/directory_2_name.`  
  
You can use forward slashes in the name even on Windows systems. If you use back slashes, they must be escaped.  
  
For example;  
`\\\\host_name\\shared_drive_name\\root_directory_name\\directory_1_name\\directory_2_name.`
9. Click Next.  
If Genesys WFM is selected (see [Figure 169](#)), the Workforce Genesys WFM screen displays. If not, the Installation Progress screen displays and you can skip to Step 9.



**Installer Wizard**

**Genesys**

**Workforce Genesys WFM**

Enter the base URL for the Genesys WFM Web Service

Base URL

Enter the Genesys application name for the WFM application

Application name

Enter the numeric user ID for the Genesys WFM Web Service

User ID

Enter the time interval (in milliseconds) for polling the Genesys WFM service

Polling interval (ms)

How many hours of forecast data should be harvested per poll?

Number of hours to harvest

**Figure 169: Workforce Genesys WFM Screen**

**10. Enter the Genesys WFM parameters:**

- **Base URL:** The base URL should contain the server name or IP address of the machine where the WFM server is installed, as well as the port on which the server is configured and listening. For example, `http://192.168.98.215:5007`.
- **Application name:** The application name of the WFM server as configured in the Configuration Server or Genesys Administrator.
- **User ID:** Enter either a specific user ID to indicate the identity of the requests, or enter 0 (zero) to indicate no user. It is used as a reference in the connection string to Genesys WFM.
- **Polling interval (ms):** The interval at which the Genesys WFM service is polled for forecast data.
- **Number of hours to harvest:** The number of hours of forecast metrics to get during each polling interval.

- 
- Notes:**
- When using numerical IP v6 addresses, please enclose the literal in brackets.
  - For Workforce Advisor installations connecting to Genesys WFM, the server running WA must be able to access your Genesys WFM installation.

To verify this access, from your WA server machine:

1. Successfully ping the server name or IP address specified in the base WFM URL;
2. Successfully telnet the server name or IP address and the port specified in the base WFM URL;
3. Successfully ping the host name of your Genesys WFM instance as it appears in your WFM server's Configuration Manager application.

Your WA server must have access to the WFM server by its associated Configuration Manager host name. If it does not, an `UnknownHostException` occurs because the SOAP API's service locator provides a host name that is not reachable by the WA server.

If you cannot ping or access the Genesys WFM instance using the associated Configuration Manager host name from the machine hosting the WA server, then you must add the following lines to the hosts file on the machine hosting the WA server:

# For WA connectivity with WFM

[IP address of WFM server] [Associated Configuration Manager host name for the WFM instance]

Example: 192.168.98.229 demosrv.genesyslab.com

The hosts file is OS-specific. For example, for Windows 2003, the host file resides in the following location:

%SystemRoot%\system32\drivers\etc\

---

11. Click Next.

The Installation Progress screen displays.

12. Click Show Details.

The Installation Progress screen displays. Installation progress displays on the Output tab. Any errors display on the Errors tab.

13. If no errors display, close the Finished popup.

The Output tab displays the message Build Successful along with the total time taken for the deployment, or if errors display, you can diagnose them in the Errors tab. Delete the directory into which the installer has written product files and, after diagnosis, reinstall the files.

14. Mandatory step: After the installation is finished, remove the SQL Server installation script from the customer's environment.

**End of procedure**

---

## Configuring Metric Graphing Properties

You configure metric graphing properties during the installation of the CCAdv and WA modules. If changes are required in the metric graphing properties after installation, use the CONFIG\_PARAMETER table in the Advisors database. The following list describes the properties that govern metric graphing in the CONFIG\_PARAMETER table:

- The time period of graphed values.  
If you are running Release 8.1.3 or later software, this is not applicable. Beginning in Release 8.1.3, users can graph five minutes and thirty minutes data in the same graph. There is no system-wide setting that determines the time period of values displayed in graphs. Use the Time Profile for Charting option on the Metric Manager page of the Administration module to enable a metric for Metric Graphing. For earlier releases, the default is to show values from the Now period, and from point-in-time metrics. You can change this to show values from the 30 Min period, and from point-in-time metrics. See [Procedure: Changing the time period of graphed values](#), on page 297.
- The duration of the historical values retained for graphing.  
The default number is 120 minutes, or 2 hours. Changing this number will increase or decrease the number of minutes that the historical data for metrics is kept in the metric graphing database. See [Procedure: Changing the duration of historical values retained for graphing](#), on page 298.
- The duration of the future values displayed for graphing.  
Applicable beginning in Release 8.1.3. The default number is 120 minutes, or 2 hours. Changing this number increases or decreases the number of



minutes that the future data of WA forecast metrics is displayed on the complete X axis (horizontal axis) of a graph. See [Procedure: Changing the duration of future values displayed for graphing](#), on page 299.

- The minimum interval in seconds between graphed values in all graphs for points stored after the change. See [Procedure: Changing the interval in seconds between values](#), on page 299.
- Whether graphed values display from midnight.  
The default value is true. Changing this to false mean that a graph will not show values with times from the previous day. [Procedure: Changing whether graphed values start at midnight](#), on page 301.

---

## Procedure: Changing the time period of graphed values

**Purpose:** To change the setting that determines the time period of values in graphs.

---

**Note:** If you are running Release 8.1.3 or later software, this is not applicable. Beginning in Release 8.1.3, use the *Time Profile for Charting* option on the Metric Manager page of the Administration module to enable a metric for graphing and to set the time profile.

---

### Start of procedure

1. In the Advisors database, execute  

```
UPDATE CONFIG_PARAMETER SET PARAM_VALUE = 'n'
```

  
Where  

```
PARAM_NAME = warehoused.metrics.period.type
```

  
For *n*, substitute your desired value. Legal values are FiveMin and ThirtyMin. FiveMin chooses the values from the dashboard columns titled Now from the most recent five minutes. ThirtyMin chooses values from the dashboard columns titled 30 Min, from the current half-hour.
2. Wait at least five minutes until the configuration parameter cache expires, and the value you set is loaded into the cache again.
3. From this point on, CCAdv/WA stores the values for graphing from the time period you chose. Previously stored values will still be from the previously chosen time period.

### End of procedure

---

## Procedure: Changing the duration of historical values retained for graphing

**Purpose:** To change the duration, in minutes, of the historical values that are retained for graphing.

Note that CCAdv/WA is optimized with the graphing parameters of 120 minutes of graphable values that are no closer than 60 seconds apart.

If you decrease the interval in seconds between values, you must decrease the duration of values stored, so that only approximately 120 values are stored for graphing. See “Changing the interval in seconds between values” on [page 299](#).

### Start of procedure

1. In the Advisors database, execute:  

```
UPDATE CONFIG_PARAMETER SET PARAM_VALUE = 'n'
```

  
Where  

```
PARAM_NAME = warehoused.metrics.max.minutes.kept
```

  
For  $n$ , substitute your desired value. Note that the value is entered as a character string, surrounded by single quotes.  
  
Starting in Release 8.1.5, the configured value for the `warehoused.metrics.max.minutes.kept` parameter is maintained when you upgrade to another software release.
2. Wait at least five minutes until the configuration parameter cache expires, and the value you set is loaded into the cache.
3. From this point on, CCAdv/WA stores up to  $n$  minutes of historical values for each metric in the metric graphing database. The graphing service will return  $n$  minutes of values for each graph. The graphing service also returns future values when they are available. See “Changing the duration of future values displayed for graphing” on [page 299](#).

### End of procedure

---

## Procedure: Changing the duration of future values displayed for graphing

**Purpose:** To change the duration, in minutes, of the future values that are displayed for graphing. Only WA contact group forecast metrics have future values.

---

**Note:** The following procedure is applicable beginning in Release 8.1.3.

---

### Start of procedure

1. In the Advisors database, execute:  

```
UPDATE CONFIG_PARAMETER SET PARAM_VALUE = 'm'
```

Where  
`PARAM_NAME = warehoused.metrics.forecast.minutes.displayed`

For m, substitute your desired value. Note that the value is entered as a character string, surrounded by single quotes.
2. Wait at least five minutes until the configuration parameter cache expires, and the value you set is loaded into the cache.
3. From this point on, CCAdv/WA displays up to m minutes of future values for each metric in the metric graphing database.  
The graphing service returns n (`warehoused.metrics.max.minutes.kept`) minutes of historical values, plus m (`warehoused.metrics.forecast.minutes.displayed`) minutes of future values (when available) for each graph.

### End of procedure

---

## Procedure: Changing the interval in seconds between values

The supported amount of historical data that CCAdv/WA stores for one graphed metric is 120 values. By default, CCAdv/WA keeps 120 values that are not closer than one minute apart.

If you decrease the interval in seconds between values, you must decrease the duration of values stored, so that only approximately 120 values are stored for graphing.

**Purpose:** To change the minimum number of seconds between values in a graph.

### Start of procedure

1. In the Advisors database, execute:  

```
UPDATE CONFIG_PARAMETER SET PARAM_VALUE = 'n'
```

Where

```
PARAM_NAME = warehoused.metrics.min.interval.secs
```

For  $n$ , substitute your desired value. Note that the value is entered as a character string, surrounded by single quotes.
2. Wait until the configuration parameter cache expires, and the value you set is loaded into the cache.
3. From this point on, CCAdv/WA stores values for graphing such that a value is at least  $n$  seconds after the previous value stored. The graphing service returns the values that have been stored, according to any minimum interval setting that has existed for the duration of storage.

### End of procedure

### Example

If you want to display a graph of values for one day all the way back to midnight, that is at most 24 hours. We can calculate that (24 hours \* 60 minutes per hour / 120 data points) means 1 data point will be graphed not more than every 12 minutes.

1. At installation set the Store snapshots for graphing interval to 720 seconds (12 minutes \* 60 seconds per minute) This setting corresponds to `warehoused.metrics.min.interval.secs` in `CONFIG_PARAMETER.NAME` in the Advisors database.
2. By hand in the `CONFIG_PARAMETER` table in the Advisors database, set `PARAM_VALUE` to 1440 for the `warehoused.metrics.max.minutes.kept` parameter. That is the result of 24 hours \* 60 minutes per hour, for 1440 minutes.

---

**Note:** Starting in Release 8.1.5, the configured value for the `warehoused.metrics.max.minutes.kept` parameter is maintained when you upgrade to another software release.

---

After CCAdv/WA has been running for 24 hours, a newly opened graph would display the last 24 hours of values, with values spaced at least 12 minutes apart.

---

## **Procedure:** **Changing whether graphed values start at midnight**

**Purpose:** To change the setting that determines whether graphs display values from the previous day.

### **Start of procedure**

1. In the Advisors database, execute:  

```
UPDATE CONFIG_PARAMETER SET PARAM_VALUE = 'n'
```

Where  
`PARAM_NAME = warehoused.metrics.start.at.midnight`  
For *n*, substitute your desired value. Legal values are 'true' and 'false'
2. Wait until the configuration parameter cache expires, and the value you set is loaded into the cache again.
3. From this point on, when you first open a graphemic value `false` it will not contain values whose times are from the previous day. In addition, open graphs will delete values from the previous day, when the time crosses midnight into the next day.

### **End of procedure**

---

# **Deploying the XML Generator as a Service**

---

## **Procedure:** **Deploying XML Generator as a service**

### **Start of procedure**

1. Run the Windows service as a user who has these permissions:
  - a. Permission Log In as a Service. Services are installed to be run under the Windows local system account. This account is restricted from network I/O by Windows design.
  - b. Permission to write to the directory on the network.
2. Either:
  - Navigate to the installation folder in Windows Explorer, then execute the file `[CCA Home]\XMLGen\InstallXMLGen.bat` (which completes this procedure);
  - Open a Command prompt window, and continue from Step 3.
3. Change the directory to XMLGen installation.

4. Run the command: `installXmlgen`.

**End of procedure**

---

## **Procedure: Removing XMLGen as a service**

**Start of procedure**

1. Either:
  - Navigate to the installation folder in Windows Explorer, then execute the file `[CCA Home]\XMLGen\UninstallXMLGen.bat` (which completes this procedure); or,
  - Open a Command prompt window, and continue from Step 2.
2. Change the directory to XMLGen installation.
3. Run the command: `uninstallXmlgen`.

**End of procedure**

---

# **Stopping and Starting XML Generator and CCAdv Web Service**

In release 8.1.2 and later, as part of enhancements to the security of XML passed from XML Generator to CCAdv, XML Generator and CCAdv web service share a cache. No XML is now written to disk storage.

This new dependency between the two components means that stopping and starting them needs to be done as described in the procedure below to avoid problems.

For example, if you start the XML Generator before starting a Geronimo instance that is hosting the CCAdv web service, then the following problem will happen.

1. In 8.1.2 to 8.1.4, the XML Generator will start. It will try to send XML describing the relationships between applications and agent groups, to the cache in Geronimo. That will fail, because Geronimo is not running. In 8.1.5, the XML Generator will start and then hang, as it tries to communicate with the CCAdv web service running in Geronimo and cannot reach it.

2. Geronimo will start. The cache will not contain the XML for the above relationships, since the XML Generator could not send it when it was produced. You will see errors in the `geronimo.log` about XML files for relationships not being available for dashboards. Functionality in the dashboard that depends on this XML will not work.

So, you need to start Geronimo before you start the XML Generator.

---

### **Procedure:** **Stopping and Starting XML Generator and CCAdv Server**

**Purpose:** To ensure that all XML produced by the XML Generator is stored for Contact Center Advisor's dashboards.

#### **Start of procedure**

1. Start all the Geronimo servers that hosts the CCAdv web service. (Other instances of Geronimo do not matter.)
2. Start XML Generator.
3. If you restart Geronimo on one of those systems, also re-start the XML Generator.

#### **End of procedure**

---

## **Modifying the XMLGen Configuration**

---

### **Procedure:** **Modifying the XMLGen Configuration**

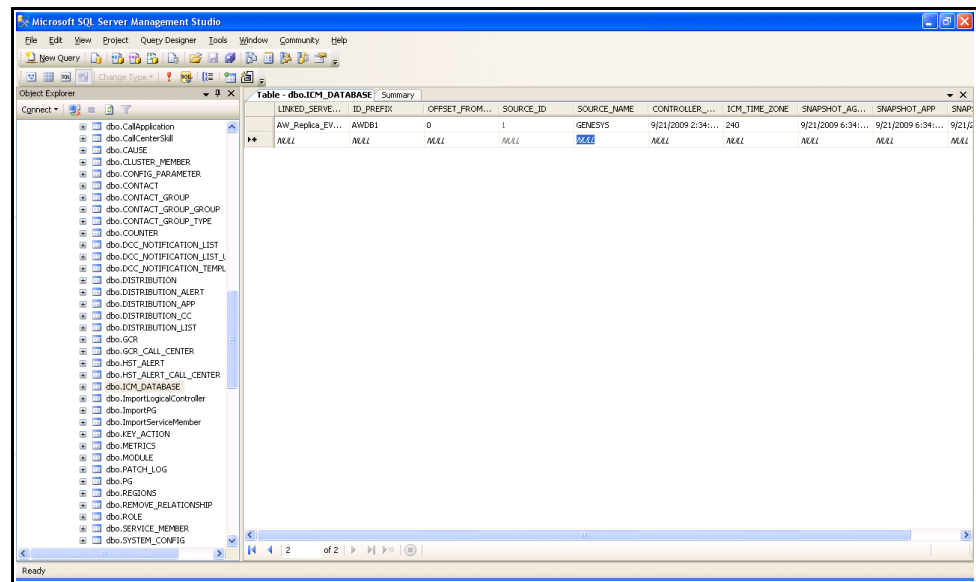
#### **Start of procedure**

1. After installation of XMLGen, there should be a row in the Platform database in the `ICM_DATABASE` table corresponding to the CCAdv/WA Metrics database created in the previous steps. If not, add this row. This row is needed to ensure that XMLGen works properly with the metrics database.
2. Once the row is inserted, or if there is already an existing row for the metrics database, then update the source column for that row to read `GENESYS` (all upper-case) by executing the following command:

```
UPDATE <ccawa_dbname>.<schema_name>.ICM_DATABASE SET
SOURCE_NAME='GENESYS' WHERE LINKED_SERVER_NAME IN
('<metrics_db_1>', '<metrics_db_2.>' .., '<metrics_db_n>')
```

**Note:** (<metrics\_db\_1>, <metrics\_db\_2...>, <metrics\_db\_n>) - is a list of Metrics database destinations for the Genesys Adapter.

The ICM database should then look like Figure 170 on [page 304](#).



The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The left pane displays the 'Object Explorer' with a tree view of the database schema, including tables like 'dbo.CallApplication', 'dbo.CallCenterSkill', 'dbo.CAUSE', 'dbo.CLUSTER\_MEMBER', 'dbo.CONFIG\_PARAMETER', 'dbo.CONTACT', 'dbo.CONTACT\_GROUP', 'dbo.CONTACT\_GROUP\_GROUP', 'dbo.CONTACT\_GROUP\_TYPE', 'dbo.COUNTER', 'dbo.DCC\_NOTIFICATION\_LIST', 'dbo.DCC\_NOTIFICATION\_LIST\_I', 'dbo.DCC\_NOTIFICATION\_TEMP', 'dbo.DISTRIBUTION', 'dbo.DISTRIBUTION\_ALERT', 'dbo.DISTRIBUTION\_APP', 'dbo.DISTRIBUTION\_CC', 'dbo.DISTRIBUTION\_LIST', 'dbo.GOR', 'dbo.GOR\_CALL\_CENTER', 'dbo.HST\_ALERT', 'dbo.HST\_ALERT\_CALL\_CENTER', 'dbo.ICM\_DATABASE', 'dbo.ImportLogicalController', 'dbo.ImportPG', 'dbo.ImportServiceMember', 'dbo.HST\_ACTION', 'dbo.METRICS', 'dbo.MODULE', 'dbo.PATCH\_LOG', 'dbo.PS', 'dbo.REGIONS', 'dbo.REMOVE\_RELATIONSHIP', 'dbo.ROLE', 'dbo.SERVICE\_MEMBER', and 'dbo.SYSTEM\_CONFIG'. The right pane shows the 'Table: dbo.ICM\_DATABASE' with a 'Summary' tab selected. The table has columns: 'LINKED\_SERVER...', 'ID\_PREFIX', 'OFFSET\_FROM...', 'SOURCE\_ID', 'SOURCE\_NAME', 'CONTROLLER...', 'ICM\_TIME\_ZONE', 'SNAPSHOT\_AG...', 'SNAPSHOT\_APP', and 'SNAP...'. The data row shows: 'AW\_Replica\_EV...', 'AW001', '0', '1', 'GENESYS', '9/21/2009 2:34...', '240', '9/21/2009 6:34...', '9/21/2009 6:34...', and '9/21/2009 6:34...'. The status bar at the bottom indicates 'Ready'.

Figure 170:ICM\_DATABASE Screen

End of procedure

## Modifying XML Generator Email Notifications about Logged Errors

The XML Generator log files are in the `xmlgen\log` directory. For every ERROR-level message written to its log, XML Generator sends an email to the address entered at installation. You can change certain properties of this log, or turn this logging off.

XML Generator uses log4j to send the email messages. The configuration for email is in the `xmlgen\log4j.xml` file. Look for the appender named MAIL. The instructions about how to turn off the logging, or change the properties defined there, are in the file. The properties you can change are:

- mail server host name
- subject line of messages
- email addresses to send to
- email address for “from” address



- log4j format (conversion pattern) of the content of the ERROR message

After changing any of the preceding properties, you must restart the XML Generator for the changes to take effect.

## Changing the XML Generator Connection

For XML Generator you can change the database connection data after installation. The XML Generator file is:

- `conf/xmlgen.properties.xml` in Release 8.1.2
- `conf/XMLGen.properties` beginning in Release 8.1.3

To change the password see “Changing Encrypted Passwords After Installation” on [page 145](#).

---

## Configuring Forecast Metric Graph Shapes

Beginning in Release 8.1.4, the shape of the graph that displays in the Metric Graphing window for forecast metrics is configurable. When you migrate to Release 8.1.4, the migration script updates the metrics table and specifies values as shown in the following table.

**Table 10: Values for Metric Graph Shapes**

| Metric     | Metrics/Graphing_Style |
|------------|------------------------|
| FNCO       | saw                    |
| FNCOTotal  | saw                    |
| FAHT       | flat                   |
| FSL        | flat                   |
| FASA       | flat                   |
| REQ        | flat                   |
| SCH        | flat                   |
| AdjREQ     | flat                   |
| AdjSCH     | flat                   |
| All others | null                   |

To change the default graph shape for a forecast metric, use the `graph_style` column in the platform database metrics table to define the shape of the graph. The graph shapes have the following characteristics:

- saw: forecast metrics; saw-style graph. Interval in historical area: 30 minutes
- flat: forecast metrics; flat-style graph. Interval in historical area: 30 minutes
- null: the default graph shape for all non-forecast metrics; flat-style graph. Interval in historical area: 1 minute (configurable)

---

## Notes for the Data Source Database Name

The data source database name must include the linked server name if the database is present on a different database server from that on which the Platform database is installed. See Chapter 4 on [page 101](#).

### For Cisco data sources:

- The linked server must point to the server that hosts the Cisco central ICM/IPCC database
- The database specified must be an AWDB database

### Example Data Source Names

Example database name setting for a Genesys data source (if located on the same database as the Platform database):

```
advisors_gametrics
```

Example database name setting for a Cisco data source (using linked server ICMCENTRAL and AWDB named name\_awdb):

```
ICMCENTRAL.name_awdb
```

Example database name setting for a Genesys data source where the linked server name contains special characters (this is for the case when the Genesys datasource database is located on a MSSQL server other than the Platform database):

```
[DS00001Primary-345].advisors_gametrics
```

---

## JDBC Data Source Error Logging in XML Generator

CCAdv XML Generator uses a third-party JDBC data source.

---

## **Procedure:** **Reviewing JDBC data source error logs**

### **Purpose:**

To see the cause of errors reported by this data source in the log of XML Generator.

### **Start of procedure**

1. Stop the XML Generator Windows service.
2. Edit `xmlgen/log4j.xml`.
3. Find the category for `com.mchange`.
4. Change the level to `DEBUG`.
5. Save the file.
6. Restart the XML Generator Windows service.
7. Examine the XML Generator log.

### **End of procedure**

---

## **Custom Time Zones**

Custom time zones can be configured for Workforce Advisor.

---

## **Procedure:** **Configuring custom time zones**

### **Start of procedure**

1. Navigate to the `\conf` directory.
2. Create an empty file called `TimeZoneMapping.properties`.
3. Edit this file and enter the custom time zone mappings.

For example;

```
#This file contains time zone mappings to allow custom time zone
names to be
#translated to Java time zones
#MyTimeZone = CST6CDT
GENESYS = US/Eastern
```

where GENESYS is the name of the custom time zone.

### **End of procedure**

---

# Changing the Time Period of Agent Groups Metrics from Now to 30 Mins after Installation

You can change the period type of displayed agent group metrics from Now to 30 Mins, or from 30 Mins to Now, post-installation.

---

## Procedure:

### Changing the Period Type Text in the Agent Groups Pane and in Column Chooser for CCAdv and WA

**Purpose:** Use this procedure to change the text for the period type. After you complete this procedure, go to [Procedure: Configuring the AGA Database to Collect Agent Group Metrics for an Updated Time Period](#) and follow the steps to alter the AGA database to fetch metrics for the updated time period for agent groups.

#### Prerequisites

- Users should log out before you perform this configuration change.

#### Start of procedure

1. Stop the Windows services for Advisors CCAdv XML Generator and the Advisors suite server.
2. Execute the following statements on your Advisors Platform database:
  - a. View the configuration parameters:

```
select * from config_parameter
```
  - b. Update one configuration parameter:

```
update config_parameter set param_value = 'ThirtyMin' where param_name = 'skill.group.metrics.period.type'
```
  - c. View the parameters again to ensure your update was successful:

```
select * from config_parameter
```
3. Start the Windows services for Advisors CCAdv XML Generator and the Advisors suite server.  
Users may log in again.
4. If a column with the Now time period continues to appear in an Agent Groups pane, do the following:
  - a. Open the Column Chooser.
  - b. Un-pin (de-select) that column.
  - c. Find the correct Agent Group metric for the 30 Min period.

- d. Pin (select) that column for display.

If you cannot see any columns with the 30 Min period in the CCAdv Agent Groups pane, ensure the 30 Min button in the title bar is selected.

**End of procedure**

---

### **Procedure:**

## **Configuring the AGA Database to Collect Agent Group Metrics for an Updated Time Period**

**Purpose:** Use this procedure to change Agent Group metrics from Now to 30 Min. The Application metrics are unaffected by this procedure.

### **Start of procedure**

1. To update the time profile from Now to Growing, 30 Mins, execute the following SQL statement on the Platform database:  

```
Update statistics_templates set timeprofiletype = 'Growing',
timeprofileinterval = 30 where modulename = 'CCAdv' and
timeprofiletype = 'Sliding' and timeprofileinterval = 5 and
objecttype = 'AgentGroup'
```
2. Restart the Platform server and the Genesys Adapter instances for CCAdv.

**End of procedure**

---

# **Deploying the Genesys Advisors Browser**

This section describes how to install and uninstall the Genesys Advisors browser.

---

## Procedure: Deploying the Genesys Advisors Browser

### Start of procedure

1. With Microsoft Internet Explorer, open `http://home.genesysadvisors.local`. The installation automatically begins.

---

**Note:** If the browser is installed on a machine other than the application server, then you must enter the IP address of the applications server.

---

2. If prompted, accept the installation of the ActiveX Control.
3. When prompted, click **Install**. The **Login** page is displayed.
4. Install, or download, or upgrade the Flash plug-in if required.

---

**Note:** Since release 8.0, the Flash plug-in is not installed automatically in the Advisors browser installation procedure. The minimum required version is 9.0.124. If the plug-in is not present, a prompt is displayed when the browser is first launched.

---

5. If there are errors during installation, open **Windows Task Manager | Processes** and end any **XULRunner** processes (for example, `xulrunner.exe`) that are running by selecting the process, then clicking **End Task**.

### End of procedure

#### Advisors Registry Path

When you install the Advisors browser in any location other than the default location, its path in the registry is as follows:

- For 32-bit machines: `HKLM\SOFTWARE\Informiam\Browser\BrowserDir`
- For 64-bit machines:  
`HKLM\SOFTWARE\WOW6432Node\Informiam\Browser\BrowserDir`

## Uninstalling the Genesys Advisors Browser

---

### Procedure:

### Uninstalling the Genesys Advisors Browser

#### Start of procedure

1. Log out of the browser.
2. Close the browser. You cannot uninstall the browser while it is open.
3. Go to Control Panel and select Add or Remove Programs.
4. Highlight Genesys <version> and click Change/Remove.
5. To accept, click Yes.
6. Go to C:\Documents and Settings\[USERNAME]\Application Data\Genesys and delete the Enterprise Advisor folder.
7. Go to C:\Documents and Settings\[USERNAME]\Local Settings\Application Data\Genesys and delete the Enterprise Advisor folder.

#### End of procedure

---

**Note:** You can also use C:\Program Files\Genesys\Advisor\uninstall.exe to remove Genesys Advisors browser. This method deletes the folders mentioned in the steps in the procedure above.

---

## Enabling the Browser Login Using HTTPS

The Advisors Browser can give a certificate error when users attempt to log in using https on Mozilla Firefox platforms.

The cert\_override.txt is a text file that is used to store certificate exceptions specified by users of Firefox, and other XUL-based applications.

To add an exception of this kind, and prevent the certificate error occurring:

1. Open the https:// site using Firefox.
2. Accept the certificate.
3. Download the file cert\_override.txt from this location:  
%AppData%\Mozilla\Firefox\Profiles\{RANDOM}\Cert\_override.txt
4. Add it to this location:  
%AppData%\Genesys\Enterprise Advisor\  
Profiles\{RANDOM}\Cert\_override.txt

---

## Formatting Alert Messages Sent by Advisors

You can format the e-mail that Contact Center Advisor and Workforce Advisor send about alerts. You can format both the subject and body text of an e-mail. You may want to shorten the text to accommodate the smaller screens of pagers.

The template files for messages' subjects and body text are available after either XMLGen or WA server is installed.

---

**Note:** If you format the CCAdv alert messages after deploying CCAdv, you must restart XMLGen.

If you format the WA alert messages after deploying WA, you must restart Geronimo.

---

The list of properties you could add with descriptive text appears in Table 11 on [page 313](#). The properties whose names end in `.de` are for inclusion in German text. The properties whose names end in `.en` are for inclusion in English text. The properties whose names end in `.fr` are for inclusion in French text. Properties without a suffix can be included in text in any language. Even though the same name replaces the property for the name in any language, it is still necessary to have three properties – one per language. If an object name is not present, Advisors enters the word `none`, which is different in every language.

---

**Note:** Performance Management Advisors offer the French-language option in Release 8.1.4 only.

---

The names of business objects that you create in the Configuration Server are available in only one language.

So, for example, in an e-mail sent about an alert, the name of a contact center will be in only one language. The contact center's name will replace both



`${call.center.name.en}` and `${call.center.name.de}` in the template for the e-mail's subject or body.

**Table 11: Message Properties**

| Description                                                                                                                                                                                                                                                                                               | Property                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| A comma-separated list of distribution lists to which an e-mail about an alert was sent.                                                                                                                                                                                                                  | <code>\${distribution.list.names}</code>                                                                                               |
| The name of the application group related to an element that caused the alert. There may not be one.                                                                                                                                                                                                      | <code>\${application.group.name.en}</code><br><code>\${application.group.name.de}</code><br><code>\${application.group.name.fr}</code> |
| Alert types: Business, or Technical.                                                                                                                                                                                                                                                                      | <code>\${alert.type.en}</code><br><code>\${alert.type.de}</code><br><code>\${alert.type.fr}</code>                                     |
| The name of one contact center, possibly the only contact center, associated with the alert.                                                                                                                                                                                                              | <code>\${call.center.name.en}</code><br><code>\${call.center.name.de}</code><br><code>\${call.center.name.fr}</code>                   |
| A list of comma-separated names of all contact centers associated with the alert.                                                                                                                                                                                                                         | <code>\${call.center.name.list.en}</code><br><code>\${call.center.name.list.de}</code><br><code>\${call.center.name.list.fr}</code>    |
| The subject: an application in CCAdv, a contact group in WA and a peripheral.                                                                                                                                                                                                                             | <code>\${alert.element.name.en}</code><br><code>\${alert.element.name.de}</code><br><code>\${alert.element.name.fr}</code>             |
| A metric's value. There might not be one.                                                                                                                                                                                                                                                                 | <code>\${alert.value.en}</code><br><code>\${alert.value.de}</code><br><code>\${alert.value.fr}</code>                                  |
| The display name of the metric whose threshold violation caused the alert. There may not be one.                                                                                                                                                                                                          | <code>\${alert.metric.name.en}</code><br><code>\${alert.metric.name.de}</code><br><code>\${alert.metric.name.fr}</code>                |
| The value entered on the System Configuration page, called "Threshold Trigger Delay Rate (minutes)" in that page. This may not be appropriate for some of these alerts. For example, a technical alert about a peripheral gateway being offline is reported as soon as it is detected, not after a delay. | <code>\${alert.delay.minutes}</code>                                                                                                   |

**Table 11: Message Properties (Continued)**

| Description                                                                                           | Property                                                                                        |
|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| The alert's start date and time.                                                                      | \${alert.start.time.en}<br>\${alert.start.time.de}<br>\${alert.start.time.fr}                   |
| How long the alert is/was active.                                                                     | \${alert.duration.minutes}                                                                      |
| The alert's status: active or expired.                                                                | \${alert.active.status.en}<br>\${alert.active.status.de}<br>\${alert.active.status.fr}          |
| The name of the geographic region related to the element that caused the alert. There may not be one. | \${geographic.region.name.en}<br>\${geographic.region.name.de}<br>\${geographic.region.name.fr} |
| The name of the reporting region related to the element that caused the alert. There may not be one.  | \${reporting.region.name.en}<br>\${reporting.region.name.de}<br>\${reporting.region.name.fr}    |
| Name of the operating unit related to the element that caused the alert. There may not be one.        | \${operating.unit.name.en}<br>\${operating.unit.name.de}<br>\${operating.unit.name.fr}          |

To format alert messages, change any of the text in the template except the text between the brackets “{}”.

### CCAdv Message for an Alert Concerning a Threshold Violation

This is located in:

c:\advisors\conf\templates\AlertThresholdViolation\_EmailTemplate.txt.

The example here assumes that at installation you chose both German and English. So, the template file contains the text in both languages.

Contact Center Advisor hat eine Verletzung eines Business-Alarms festgestellt, den Sie abonniert haben. Sie erhalten diesen Alarm, da der nachstehende Schwellenwert länger als der definierte Zeitraum außerhalb des akzeptablen Bereichs von \${alert.delay.minutes} Minuten lag.

Dieser Alarm betrifft das geografische Gebiet  
 \${geographic.region.name.de}, Berichtsgebiet  
 \${reporting.region.name.de}, Einheit \${operating.unit.name.de} und das  
 Contact Center: \${call.center.name.list.de}.  
 Betroffene Anwendung: \${alert.element.name.de} in der Anwendungsgruppe  
 \${application.group.name.de}.  
 Verletzte Metrik: \${alert.metric.name.de}.  
 Aktueller Metrikwert: \${alert.value.de}.

Schwellenwertverletzung zuerst festgestellt bei:  
\${alert.start.time.de}.  
Der Alarm ist aktiv seit: \${alert.duration.minutes} Minuten.  
Der Alarmstatus ist: \${alert.active.status.de}.

Contact Center Advisor has detected the violation of a business alert to which you are subscribed. You are receiving this alert because the threshold below has remained outside the acceptable range for longer than the defined time period of \${alert.delay.minutes} minutes.

This alert affects the Geographic Region \${geographic.region.name.en}, Reporting Region \${reporting.region.name.en}, Operating Unit \${operating.unit.name.en}, and the Contact Center: \${call.center.name.list.en}.

It involves the application \${alert.element.name.en} in the Application Group \${application.group.name.en}.

Metric violated was: \${alert.metric.name.en}.  
Current metric value: \${alert.value.en}.  
Threshold violation was first detected at: \${alert.start.time.en}.  
The alert has been active for: \${alert.duration.minutes} minutes.  
The alert's status is: \${alert.active.status.en}.

### **CCAdv Message for an Alert Concerning an Offline Peripheral**

This is located in:

c:\advisors\conf\templates\AlertOther\_EmailTemplate.txt

The example here assumes that at installation you chose both German and English. So, the template file contains the text in both languages.

Contact Center Advisor hat eine Verletzung des Alarms \${alert.type.de} festgestellt, den Sie abonniert haben. Dieser Alarm betrifft die folgenden Contact Center(s):  
\${call.center.name.list.de}.

Betroffenes Element (Peripheriegerät/Anwendung etc.):  
\${alert.element.name.de}.

Alarm zuerst festgestellt bei: \${alert.start.time.de}.

Alarmstatus: \${alert.value.de}.

Der Alarm ist aktiv seit: \${alert.duration.minutes} Minuten.

Der Alarmstatus ist: \${alert.active.status.de}.

Contact Center Advisor has detected the violation of a \${alert.type.en} alert to which you are subscribed.

This alert affects the following contact center(s):  
\${call.center.name.list.en}.

It involves the element (peripheral/application/etc):  
\${alert.element.name.en}.

```
Alert was first detected at ${alert.start.time.en}.
Alert status: ${alert.value.en}.
The alert has been active for: ${alert.duration.minutes} minutes.
The alert's status is: ${alert.active.status.en}.
```

### **WA Message for an Alert Concerning a Threshold Violation**

This is located in:

c:\advisors\conf\templates\AlertThresholdViolation\_EmailTemplateWU.txt.

The example here assumes that at installation you chose both German and English. So, the template file contains the text in both languages

```
Workforce Advisor hat eine Verletzung eines Business-Alarms
festgestellt, den Sie abonniert haben. Sie erhalten diesen Alarm, da
der nachstehende Schwellenwert länger als der definierte Zeitraum
außerhalb des akzeptablen Bereichs von ${alert.delay.minutes} Minuten
lag.

Dieser Alarm betrifft das geografische Gebiet
${geographic.region.name.de}, Berichtsgebiet
${reporting.region.name.de}, Einheit ${operating.unit.name.de} und das
Contact Center: ${call.center.name.list.de}.

Betroffene Kontaktgruppe: ${alert.element.name.de} in der
Anwendungsgruppe ${application.group.name.de}.

Verletzte Metrik: ${alert.metric.name.de}.

Aktueller Metrikwert: ${alert.value.de}.

Schwellenwertverletzung zuerst festgestellt bei:
${alert.start.time.de}.

Der Alarm ist aktiv seit: ${alert.duration.minutes} Minuten.

Der Alarmstatus ist: ${alert.active.status.de}.
```

```
Workforce Advisor has detected the violation of a business alert to
which you are subscribed. You are receiving this alert because the
threshold below has remained outside the acceptable range for longer
than the defined time period of ${alert.delay.minutes} minutes.
```

```
This alert affects the Geographic Region ${geographic.region.name.en},
Reporting Region ${reporting.region.name.en}, Operating Unit
${operating.unit.name.en}, and the Contact Center:
${call.center.name.list.en}.
```

```
It involves the contact group ${alert.element.name.en} in the
Application Group ${application.group.name.en}.
```

```
Metric violated was: ${alert.metric.name.en}.
Current metric value: ${alert.value.en}.
Threshold violation was first detected at: ${alert.start.time.en}.
```

```
The alert has been active for: ${alert.duration.minutes} minutes.
The alert's status is: ${alert.active.status.en}.
```

## Language Order in Templates

If required, you can re-order the languages used in the e-mail templates by editing the template file directly.

## Testing E-mail Sent by XML Generator

You can test the mail sent by XML Generator without actually running the application and configuring the conditions that would cause it to send the e-mail.

---

### Procedure: Testing e-mail sent by XML generator

#### Start of procedure

1. Change directory to the Advisors base directory (the one in which you installed Genesys Advisors), and then change it to \xmlgen.
2. Run the command:  
`emailtest.bat.`

#### End of procedure

---

## Disabling CCAAdv Features

By default, the Performance Monitor and Workforce What-If tool are enabled. To disable these features, run the following statement against the Contact Center Advisor database:

```
UPDATE [<schema-name>].[CONFIG_PARAMETER] SET PARAM_VALUE = 'false'
WHERE PARAM_NAME = 'enableSnapshot'
```

---

**Note:** The database configuration described in this section is not applicable in Release 8.1.3 and later. Privileges associated with Role-based Access Control control the user's ability to see the Performance Monitor and Workforce What-If tools.

---

---

# Importing Contact Groups into Advisors

## Files for Contact Groups

Workforce Advisor accepts data from three WFM systems:

- Genesys Workforce Management (WFM) 7.6 or 8.1.1 (support for 8.1.1 begins in Advisors Release 8.1.4)
- IEX TotalView (SmartSync v1.7 or higher required)
- Aspect eWFM version 6 or higher

### From Genesys WFM

WA requests data from Genesys WFM directly using the API of Genesys WFM. The properties that govern this are set at installation. The properties are stored in the `conf/WorkforceAdvisor.properties` file.

The `WorkforceUtilization-GenesysMetricsMapping.properties` file is another properties file specific to importing from Genesys WFM. The properties in the file let you choose the KPIs that WA imports from Genesys WFM. For information about how to map those KPIs to WA's metrics, see "WFM Systems Metrics Correspondences" on [page 327](#).

### From IEX TotalView

Input files from IEX TotalView are sent by FTP to a port number chosen at installation. The port number is preserved in a property in the `conf/WorkforceAdvisor.properties` file. WA's FTP functionality listens on that port for incoming data.

IEX TotalView can send data to WA directly using FTP. That is, it is not necessary to first write the data to files on the disk, and then send those to WA by FTP.

After WA accepts one of these data sets, it backs it up in a file in the `Advisors` directory. The file is placed in the subdirectory `geronimo-tomcat6-minimal-2.2.1\bin\ftplib\iex`. There you can find the latest version of the data that WA accepted, although WA does not use this file. Changing this file does not affect WA. The `conf/WorkforceUtilization.properties` file has properties that tell WA how to remove these files from the directory:

- `iexLogCleaner.repeatInterval`: The default setting checks for files to remove every 12 hours.
- `iexLogCleaner.period`: The default setting removes files older than three days.

One data set from IEX TotalView can contain data from more than one contact group.

## From Aspect eWFM

Input files from Aspect eWFM are read from a directory chosen at installation. WA preserves the directory path in a property in the `conf/WorkforceUtilization.properties` file.

WA reads the files at an interval configured by a property in the `conf/WorkforceAdvisor.properties` file. That file also has properties that determine the field separator character and date format it uses when reading the file's data. WA does not back up these files, nor does it delete them after reading them.

One file from Aspect eWFM can contain data for only one contact group.

## Sending IEX TotalView files to WA using an FTP server

Unlike eWFM forecast data that WA fetches, IEX files are *pushed* to WA. WA does not read the IEX files until the FTP server pushes them to WA. IEX TotalView can send data to WA directly using FTP. That is, it is not necessary to first write the data to files on the disk, and then send those to WA by FTP.

To achieve this, you require the following, in addition to the IEX files:

1. A batch file that contains the following:  
REM sends the current IEX file to the ftp service in WU on port 6021.  
ftp -s:sendIEXFile.txt  
pause
2. A SendIEX file that contains the names of the IEX files:  
open localhost 6021  
iex  
iex!bat  
bin  
send "<<Enter your IEX filename here and repeat this line for every IEX  
file that exists>>"  
quit

Use a *Cron-job* to send the IEX files on a daily basis using the FTP server. To create a Cron-job, go to Start > Accessories > System tools > Scheduled Tasks. Create a new scheduled task and set up the batch file to run automatically at specific times.

## Contact Group Synchronization Log

Each time WA imports data about contact groups from any system, it logs the effect of the import.

The log file is in the `conf` directory. In Release 8.1.2, the log file's name is:

`ix_synchronization.log`

Despite its name, the file contains the effects of importing contact groups from any system.

In Release 8.1.3 and 8.1.4, the log file's name is:

`contactGroup_synchronization.log`

In release 8.1.5, WA no longer creates a separate log file for this information. It logs the data in the `geronimo.log` file of the Geronimo in which the WA Server is deployed. This log file is in the Advisors deployment directory, in subdirectory `geronimo-tomcat6-minimal-2.2.1\var\log`.

This logging is controlled by a category in the `server-log4j.properties` file in the same subdirectory. The category is `com.informiam.workforceutilization.service.integration.batch.ContactGroupImporterImpl` and by default is set to `INFO`, which will output the messages described here.

An example of an entry in the log in Release 8.1.2 is:

```
ContactGroupImportLogEntry{
 logDate=Fri Jun 01 22:34:58 EDT 2012,
 netNewContactTypes=[ContactType{id=WFMProd01-Complaints,
name='Complaints'}],
 disabledContactTypes=[],
 reactivatedContactTypes=[],
 renamedContactTypes=null}
```

An example of an entry in the log in Release 8.1.3 and later is:

```
ContactGroupImportLogEntry{
 logDate=Fri Jun 01 22:34:58 EDT 2012,
 netNewContactGroups=[ContactType{id=WFMProd01-Complaints,
name='Complaints'}],
 inactivatedContactGroups=[],
 reactivatedContactGroups=[]}
```

This log entry says that:

- On the last import of a contact group or set of them, there was one new contact group.
- The new contact group's source system's name is `WFMProd01`.
- The group's ID in its system of origin, (as far as Advisors can determine), is `Complaints`. The name is `Complaints`.



## File Names for Contact Groups

The names of the files with contact group data have special meaning, as described in the following sections. The file names carry this meaning because the contents of the file cannot carry it.

### From IEX TotalView

The format of the name of a file from IEX TotalView is:

`sourceSystemName.anyText`

The segment `.anyText` is mandatory, but can simply be the file's extension. For example:

`IEXSystem1.ContactGroupsForecastData.txt`

`Prod02.DailyForecast.csv`

The source system name establishes a namespace for the names of all the contact groups that the file contains. It allows Advisors to distinguish contact groups with the same name from different WFM systems.

Source system names are case-sensitive. Source names must be unique across all sources. That is, data from IEX TotalView and Aspect eWFM cannot have the same source name.

Once you first import a file with a given source system name, you should not change it. If you change it, WA will not recognize that the contact groups come from the same source system. It will create in the Advisors database a new set of contact groups with a different source system name.

The source system name appears in the Administration module, in the Contact Groups Configuration page, Contact Group Details tab. It can also qualify contact groups' names in other places Advisors displays them.

Advisors assigns the type `forecast` to all contact groups from IEX TotalView. This type also appears in the Administration module, in the Contact Groups Configuration page, Contact Group Details tab. Advisors does not use this type; it is for information only.

### From Aspect eWFM

The format of the name of a file from Aspect eWFM is:

`sourceSystemName.contactGroupName.anyText.csv`

The segment `.anyText` is optional. WA ignores it if it is present. If you replace `anyText` with a timestamp, you can use this text to differentiate the same data

sent at different times. This prevents WA from trying to read a file that something else is currently writing. For example:

```
AspectSystem1.RS.csv
Aspect.RS.csv
ewfm.03_RET.csv
Aspect1.04DESQ.2011-09-13.csv
```

The source system name establishes a namespace for the contact group whose name follows it in the file name. It allows Advisors to distinguish contact groups with the same name from different WFM systems.

Source system names are case-sensitive. Source names must be unique across all sources. That is, data from IEX TotalView and Aspect eWFM cannot have the same source name.

Once you first import a file with a given source system name, you should not change it. If you change it, WA will not recognize that the contact groups come from the same source system. It will create in the Advisors database a new set of contact groups with a different source system name.

The source system name appears in the Administration module, in the Contact Groups Configuration page, Contact Group Details tab. It can also qualify contact groups' names in other places Advisors displays them.

The contact group name is the name of the contact group.

If the contact group name starts with FG, then Advisors assigns the type *forecast* to the contact group; otherwise it assigns the type *staff*. This type (forecast) also appears in the Administration module, in the Contact Groups Configuration page, Contact Group Details tab. Advisors does not use this type; it is for information only.

You can put multiple files in the ewfm folder for a given sourceSystemName.contactGroupName. Genesys recommends that you format the files using the following convention to ensure WA imports the most recent file:

<sourceSystemName>.<contactGroupName>.<yyyyMMddhhmmss>

For example:

- Pipkins1.CAE.20130605101010.csv
- Pipkins1.CAE.20130605111010.csv

These two files have the same sourceSystemName and contactGroupName, but the time values differ. WA compares these values and imports the most recent file. From the previous example, WA imports the line items in the Pipkins1.CAE.20130605111010.csv file, and ignores the Pipkins1.CAE.20130605101010.csv file.

## Distributed and Undistributed Scenarios

From Aspect eWFM, the real-time data for one contact group is in:

- One file (the undistributed scenario)
- More than one file (the distributed scenario)

For WA to read these files, you must follow a convention about where to put them in the file system.

**For the undistributed scenario**, put the files into the directory you supplied for WA at installation.

**For the distributed scenario**, the data for each contact group is in more than one file. Metrics for forecast contact groups are in one file. Metrics for related staff contact groups are in one or more different files.

Put the file of forecast contact group metrics in the directory supplied for WA at installation.

Put the files of staff contact groups in a subdirectory of that directory. The name of the subdirectory should be the name of the file of the forecast contact group.

### Example

Data for the forecast contact group is in:

```
Aspect.A_FCAST_GROUP.csv
```

Data for the staff contact groups is in:

```
Aspect.A_STF_GROUP_1.csv
```

```
Aspect.A_STF_GROUP_2.csv
```

```
Aspect.A_STF_GROUP_3.csv
```

```
Aspect.A_STF_GROUP_4.csv
```

1. In the directory chosen at installation, put `Aspect.A_FCAST_GROUP.csv`.
2. In that directory, create a subdirectory named `Aspect.A_FCAST_GROUP`.
3. In the subdirectory, put the other files. The names of these files do not matter. WA knows they belong to `Aspect.A_FCAST_GROUP.csv` because the directory name matches its file name.

You can mix both scenarios. That is, you could also put `Aspect.A_CONTACT_GROUP.csv` in the top directory, and WA would read and interpret it as usual.

See “How WA Distributes Metrics from eWFM” on [page 325](#) for information about how the distributed scenario affects the way WA collects metric values for contact groups.

## Contact Group File Header

Each file must have a header exported by the WFM system, so Workforce Advisor knows which metrics are present, and their order. The columns in these files can be in any order. The only requirement is that the column's header, in the first row, must be in the same position in that row as the data in the following rows for that column. For example, if *period* is the fifth column header, then the values for *period* must be the fifth value in each row.

In a file from IEX TotalView the header records are as follows:

```
#fields:date|period|TZ|custID|saGroupID|saGroupName|ssGroupID|ssGroupName|buID|buName|ctID|ctName|acdID|modify|fcstContactsReceived|fcstContactsHandled|fcstAHT|fcstSLPct|sLPctObj|sLTime|fcstOcc|maxOcc|fcstASA|asaObj|fcstReq|revPlanReq|commitPlanReq|schedOpen
```

```
#sort:date, period, TZ, custID, saGroupID, saGroupName, ssGroupID, ssGroupName, buID, buName, ctID, ctName, acdID, modify, fcstContactsReceived, fcstContactsHandled, fcstAHT, fcstSLPct, sLPctObj, sLTime, fcstOcc, maxOcc, fcstASA, asaObj, fcstReq, revPlanReq, commitPlanReq, schedOpen
```

The #sort record is not necessary.

For Aspect eWFM, the forecast and staff groups are either in:

- One file (undistributed), or;
- Two files (distributed).

The header records are as follows:

- **Undistributed scenario**

In the one file for both forecast and staff groups, WA uses the data from the following fields:

```
START_TIME, HOUR, MINUTE, RVOL, RAHT, RSL, RDELAY SEC, SGRREQ, SGRSCH
```

- **Distributed scenario**

In a file of metrics for forecast contact groups, WA uses the data from the following fields:

```
START_TIME, HOUR, MINUTE, RVOL, RAHT, RSL, RDELAY SEC, SGRREQ, SGRSCH
```

In a file of metrics for staff contact groups, WA uses the data from the following fields:

```
START_TIME, HOUR, MINUTE, SGRSCH, SGRREQ, RDELAY SEC
```

---

**Note:** WA does not use the PRI\_INDEX, ROUTING\_SET or STOP\_TIME fields.

---

WA uses the following fields from eWFM data files:

**START\_TIME**—WA uses the date component of the start time to determine the day, month, and year to which the data applies.

**HOUR, MINUTE**—WA uses these fields to determine the time of day to which the data applies.

## How WA Distributes Metrics from eWFM

For the distributed scenario of data from Aspect eWFM, the data for each contact group is in more than one file. The metrics for one forecast contact group are in one file.

Metrics for related staff contact groups are in one or more different files.

WA apportions the metrics' values from the forecast contact group among the staff contact groups, and then ignores the forecast contact group. Thus essentially it imports only the staff contact groups, but these have all the necessary metrics.

Here is how WA apportions the metrics' values from the forecast contact group to the related staff contact groups.

For one staff contact group:

$\text{Staff CG RVOL} = (\text{Forecast CG RVOL} * (\text{Staff CG SGRSCH} / \text{Sum}(\text{SGRSCH of all Staff CGs related to Forecast CG}))$

$\text{Staff CG RSL} = \text{Forecast CG RSL}$

$\text{Staff CG RDELAY SEC} = \text{Forecast CG RDELAY SEC}$

$\text{Staff CG RAHT} = \text{Forecast CG RAHT}$

## Importing Contact Groups with Fifteen Minute Forecasts into WA

Workforce Advisor will accept data in which the forecast intervals are 15 minutes instead of 30 minutes. It will accept such data from any of the supported WFM systems.

Since WA is designed to display metrics only for a 30-minute forecast period that starts on the current half hour, WA has to combine the metrics from 15-minute periods in order to use them.

The simplest case is two 15-minute forecast periods, starting on a half hour and 15 minutes after that. For example, two periods starting at 09:00 (period 1) and 09:15 (period 2). Here is how WA combines the forecast metrics from these periods into metrics for the 30-minutes period starting at 09:00.

In the equations, a metric for period 1 is  $M^1$ , and a metric for period 2 is  $M^2$ .

- $\text{FNCO for 30 minutes} = \text{FNCO}^1 + \text{FNCO}^2$ .
  - If either  $\text{FNCO}^1$  or  $\text{FNCO}^2$  is null, then the result is the value of the other.
  - If both are null, then the result is null.

- $\text{FNCOTotal for 30 minutes} = \text{FNCOTotal}^1 + \text{FNCOTotal}^2$ .
  - If either  $\text{FNCOTotal}^1$  or  $\text{FNCOTotal}^2$  is null, then the result is the value of the other.
  - If both are null, then the result is null.
- $\text{FAHT for 30 minutes} = (\text{FAHT}^1 * \text{FNCO}^1 + \text{FAHT}^2 * \text{FNCO}^2) / (\text{FNCO}^1 + \text{FNCO}^2)$ .
  - If either metric from period 1 is null, then the result is  $\text{FAHT}^2$ .
  - If either metric from period 2 is null, then the result is  $\text{FAHT}^1$ .
  - If the denominator is 0, then the result is null.
- $\text{FSL for 30 minutes} = (\text{FSL}^1 * \text{FNCO}^1 + \text{FSL}^2 * \text{FNCO}^2) / (\text{FNCO}^1 + \text{FNCO}^2)$ .
  - If either metric from period 1 is null, then the result is  $\text{FSL}^2$ .
  - If either metric from period 2 is null, then the result is  $\text{FSL}^1$ .
  - If the denominator is 0, then the result is null.
- $\text{REQ for 30 minutes} = (\text{REQ}^1 * \text{FNCO}^1 * \text{FAHT}^1 + \text{REQ}^2 * \text{FNCO}^2 * \text{FAHT}^2) / (\text{FNCO}^1 * \text{FAHT}^1 + \text{FNCO}^2 * \text{FAHT}^2)$ .
  - If any metric from period 1 is null, then the result is  $\text{REQ}^2$ .
  - If any metric from period 2 is null, then the result is  $\text{REQ}^1$ .
  - If the denominator is 0, then the result is null.
- $\text{SCH for 30 minutes} = (\text{SCH}^1 * \text{FNCO}^1 * \text{FAHT}^1 + \text{SCH}^2 * \text{FNCO}^2 * \text{FAHT}^2) / (\text{FNCO}^1 * \text{FAHT}^1 + \text{FNCO}^2 * \text{FAHT}^2)$ .
  - If any metric from period 1 is null, then the result is  $\text{SCH}^2$ .
  - If any metric from period 2 is null, then the result is  $\text{SCH}^1$ .
  - If the denominator is 0, then the result is null.
- $\text{AdjREQ for 30 minutes} = (\text{AdjREQ}^1 * \text{FNCO}^1 * \text{FAHT}^1 + \text{AdjREQ}^2 * \text{FNCO}^2 * \text{FAHT}^2) / (\text{FNCO}^1 * \text{FAHT}^1 + \text{FNCO}^2 * \text{FAHT}^2)$ .
  - If any metric from period 1 is null, then the result is  $\text{AdjREQ}^2$ .
  - If any metric from period 2 is null, then the result is  $\text{AdjREQ}^1$ .
  - If the denominator is 0, then the result is null.
- $\text{AdjSCH for 30 minutes} = (\text{AdjSCH}^1 * \text{FNCO}^1 * \text{FAHT}^1 + \text{AdjSCH}^2 * \text{FNCO}^2 * \text{FAHT}^2) / (\text{FNCO}^1 * \text{FAHT}^1 + \text{FNCO}^2 * \text{FAHT}^2)$ .
  - If any metric from period 1 is null, then the result is  $\text{AdjSCH}^2$ .
  - If any metric from period 2 is null, then the result is  $\text{AdjSCH}^1$ .
  - If the denominator is 0, then the result is null.

WA combines 15-minute periods as follows.

- Period 1 starting at n:00 and period 2 at n:15 combine to one 30-minute period starting at n:00.
- Period 1 starting at n:30 and period 2 at n:45 combine to one 30-minute period starting at n:30.

- A missing period 1 starting at n:00 and available period 2 starting at n:15 combine to one 30 minute period starting at n:00 that has the metrics from period 2.
- A missing period 1 starting at n:30 and available period 2 starting at n:45 combine to one 30 minute period starting at n:30 that has the metrics from period 2.
- Period 1 starting at n:00 and a missing period 2 starting at n:15 combine to one 30 minute period starting at n:00 that has the metrics from period 1.
- Period 1 starting at n:30 and a missing period 2 starting at n:45 combine to one 30 minute period starting at n:30 that has the metrics from period 1.

## WFM Systems Metrics Correspondences

Table 12 shows the relationships between the WFM metrics from different WFM systems. If a metric is not available from a WFM system, then its name in the following table, in the context of that system, is '-'.

**Table 12: WFM Systems—Metrics Correspondences**

| Name <sup>a</sup> | Display Name <sup>b</sup> | WA Canonical Name         | IEX TotalView <sup>c</sup> | Aspect eWFM <sup>d</sup> | Genesys WFM <sup>e</sup>       |
|-------------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------------------------|
| FNCO              | Forecast NCO              | fcstContactsReceived      | fcstContactsReceived       | RVOL                     | PERF_ITEM_FRC_IV               |
| FAHT              | Forecast AHT              | fcstAHT                   | fcstAHT                    | RAHT                     | PERF_ITEM_FRC_AHT              |
| FSL               | Forecast SL%              | fcstSLPct                 | fcstSLPct                  | RSL                      | PERF_ITEM_FRC_CALC_SERVICE_PCT |
| FASA              | Forecast ASA              | fcstASA                   | fcstASA                    | RDELAY SEC               | PERF_ITEM_FRC_CALC_ASA         |
| REQ               | Required Staff            | fcstReq                   | fcstReq                    | SGRREQ                   | PERF_ITEM_FRC_REQ_STAFFING     |
| SCH               | Scheduled Staff           | schedOpen                 | schedOpen                  | SGRSCH                   | PERF_ITEM_SCH_COVERAGE         |
| Adj REQ           | Adjusted Required Staff   | fcstReqAdj                | –                          | SGRREQ JU                | –                              |
| Adj SCH           | Adjusted Scheduled Staff  | schedOpenAdj              | –                          | SGRSCH J                 | –                              |
| FNCO Total        | Forecast NCO Total        | fcstContactsReceivedTotal | –                          | RVOL TOTAL               | –                              |

- a. Name shows the data in the NAME column of the METRICS table in the Advisors database.
- b. Display Name shows the data in the DISPLAY\_NAME column of the METRICS table in the Advisors database.
- c. IEXTotalView names are in the headers of files imported from that system.
- d. Aspect eWFM names are in the headers of files imported from that system.
- e. Genesys WFM's names are constants in `com.genesyslab.wfm7 ... EPerfInfoItems`. They are supplied to `WFMPPerformanceService750Soap.getPerformanceData()`. If these parameters are not correct, you can map different ones to WA's canonical names in file `conf/WorkforceUtilization-GenesysMetricsMapping.properties`.

## Troubleshooting Installation Errors

Table 13 on [page 328](#) describes parameter validation errors that you may encounter at the end of installation.

**Table 13: Installation Error Messages**

| Error Message                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Cause                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <pre>[java] Failed to connect to the database using connection URL: [java] jdbc:sqlserver://192.168.xx.yy:nnn;DatabaseName=ys_eadb;user=sa;pa ssword=very_secure_pwd;selectMethod=cursor [java] The following exception was thrown: com.microsoft.sqlserver.jdbc.SQLServerException: The TCP/IP connection to the host 192.168.xx.yy, port nnn has failed. Error: "Connection refused. Verify the connection properties, check that an instance of SQL Server is running on the host and accepting TCP/IP connections at the port, and that no firewall is blocking TCP connections to the port.</pre>           | Wrong database server name / IP address or port number |
| <pre>[java] Failed to connect to the database using connection URL: [java] jdbc:sqlserver://192.168.xx.yy:nnnn;DatabaseName=NotAPPlatformDB;se lectMethod=cursor;user=sa;password=very_secure_pwd [java] The following exception was thrown: com.microsoft.sqlserver.jdbc.SQLServerException: The TCP/IP connection to the host 192.168.xx.yy, port nnnn has failed. Error: "connect timed out. Verify the connection properties, check that an instance of SQL Server is running on the host and accepting TCP/IP connections at the port, and that no firewall is blocking TCP connections to the port."</pre> | Wrong database name                                    |



**Table 13: Installation Error Messages (Continued)**

| Error Message                                                                                                                                                                                                          | Cause                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| [java] Exception while connecting: Login failed for user 'badUserId'.<br>[java] url used:<br>jdbc:sqlserver://192.168.xx.yy:nnnn;DatabaseName=ys_eadb;selectMethod=cursor;user=badUserId;password=very_secure_password | Wrong database user name or password  |
| [loadfile] Unable to load file: java.io.FileNotFoundException: C:\<br>(The system cannot find the path specified)                                                                                                      | Produced in error and can be ignored. |



# 10

## Deploying Frontline Advisor

This chapter describes how to install Genesys Frontline Advisor Agent Advisor in a Microsoft Windows 2003 Server environment. It contains the following sections:

- [Prerequisites, page 331](#)
- [Installation Overview, page 332](#)
- [Deploying Frontline Advisor, page 334](#)
- [Troubleshooting Installation Errors, page 347](#)
- [Starting the Frontline Advisor Service, page 348](#)
- [Verifying Server Connections, page 348](#)
- [Configuring the Reason Code Statistic Key, page 350](#)
- [Enabling and Editing Filtered Metrics, page 350](#)
- [FA Message Listening Port, page 354](#)

---

### Prerequisites

See “Deployment Prerequisites” on [page 25](#).

For each physical server on which you install a Web application (such as Frontline Advisor and Agent Advisor), Platform must be pre-installed.

Before deploying Frontline Advisor, you must have created a Frontline Advisor database. To do this, please see either:

- Chapter 2, “Creating a SQL Server Database,” on [page 77](#), or;
- Chapter 3, “Creating an Oracle 11g Database,” on [page 93](#).

A verified Cisco environment must be ready and available if any of the agents have metrics provided by Cisco Adapter. Credentials with read access to the HDS and AW databases must be available when the Advisors Cisco Adapter Installer is run.

A verified Genesys environment must be ready together with a Genesys Adapter for Genesys installations.

The Data Manager feature allows multiple and mixed data source Genesys/Cisco environments to be configured with a single Frontline Advisor instance. See “Data Manager” on [page 50](#).

Do not install the Frontline Advisor as a service until the full FA installation is complete.

## Installation Overview

This document describes how to install Genesys Frontline Advisor and Agent Advisor in a Windows 2003 Server environment. Note that version numbers in the final release may be different from those in the screen captures in this document.

Install Genesys Adapter if you are using a Genesys CTI installation. For Cisco installations, install the Cisco Adapter.

## Installation Contents

The following files are shipped with the Frontline Advisor distribution:

- |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MS SQL Server</b> | <ul style="list-style-type: none"> <li>• Frontline Advisor database script:               <ul style="list-style-type: none"> <li>• fa-new-database-&lt;version&gt;.sql</li> </ul> </li> <li>• Frontline Advisor installer:               <ul style="list-style-type: none"> <li>• fa-server-installer-&lt;version&gt;.jar</li> </ul> </li> <li>• Files in the supplemental folder:               <ul style="list-style-type: none"> <li>• GeneratePermsStatements.sql</li> <li>• DropAllFADBObjects.sql</li> <li>• RemoveFAUsersFromFA.sql</li> <li>• CleanCmmConfigsAtFadb.sql (no longer present after Release 8.1.2 (obsolete))</li> </ul> </li> <li>• Files in the migrations folder:               <ul style="list-style-type: none"> <li>• fa_mssql_ddl_3.1.sql</li> <li>• fa_mssql_initial_upload_3.1.sql</li> <li>• fa-database-migration-3.1-to-3.3.sql</li> <li>• fa-database-migration-3.3-to-8.0.sql</li> <li>• fa-database-migration-8.0-to-8.1.sql</li> <li>• fa-database-migration-8.1-to-8.1.1.sql</li> <li>• fa-database-migration-8.1.1-to-8.1.2.sql</li> <li>• fa-database-migration-8.1.2-to-8.1.3.sql</li> <li>• fa-database-migration-8.1.3-to-8.1.4.sql</li> <li>• fa-database-migration-8.1.4-to-8.1.5.sql</li> </ul> </li> </ul> |
| <b>Oracle</b>        | <ul style="list-style-type: none"> <li>• Frontline Advisor database scripts:</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

- `fa-<version>_Schema.sql`
- `fa-<version>_TBS.sql`
- `fa-new-database-<version>.sql`
- `fa-database-migration-8.1-to-8.1.1.sql`
- `fa-database-migration-8.1.1-to-8.1.2.sql`
- `fa-database-migration-8.1.2-to-8.1.3.sql`
- `fa-database-migration-8.1.3-to-8.1.4.sql`
- `fa-database-migration-8.1.4-to-8.1.5.sql`

## FA Hierarchy and Configuration Server

FA reads the hierarchy from the Genesys Configuration Server. Customers can configure which location/folder in the Configuration Server houses the hierarchy, and multiple folders can be chosen if the hierarchy is spread over many different folders or tenants.

If multiple folders are specified, FA creates a consolidated view of the hierarchy with a virtual enterprise node linking all the various hierarchies together. The hierarchy in the Configuration Server consists of a tree of folders with the terminating nodes being *groups*, which in turn have *agents* as members.

These terms replace *supervisors*, *teams* and *agents* in previous versions.

---

**Notes:** Frontline Advisor automatically loads the hierarchy from the Genesys Configuration Server at startup and daily at 02:55 am.

The reload frequency can be adjusted using the following setting in the `FrontlineAdvisor.properties` file:

#Cron expression that specifies how often FA should reload its hierarchy

`hierarchy.reload.cronExpression=0 55 2 * * ?`

The default setting is 2:55am.

---

## Cisco Impact

For a pure Cisco environment, the hierarchy should be configured in the Configuration Server as it is done for a Genesys or mixed environment.

However, Cisco Adapter requires FA to send the `Cisco AgentSkillID` property to identify the agent while registering and issuing statistics. To accommodate this, the `AgentSkillID` must be added as an Annex property to each agent in the hierarchy.

The `ExternalId.CISCO` attribute must be set in the agent/person's Annex tab under the Advisors section, and the value of the `ExternalId.CISCO` will be the `AgentSkillID` for the agent in the Cisco environment.

The hierarchy extractor will first try to extract the skill ID from the Annex section for a Cisco configuration. If the `ExternalId.CISCO` property is undefined in the Annex section then it will extract the `EmployeeID` for the Genesys configuration.

Ensure that each ICM AWDB that must be accessed by FA has a user mapped to the relevant SQL Server account. The minimum requirement is that this ACA user has permissions to select the data from:

- `agent_Real_Time`
- `Termination_Call_Detail`

---

## Deploying Frontline Advisor

---

### Procedure:

### Deploying Frontline Advisor

**Purpose:** To run the provided installer that gathers configuration information and installs the Frontline Advisor server as a Windows service.

#### Start of procedure

1. Run the installation jar file by either;
  - Using the command `java -jar fa-server-installer-<version>.jar`;
  - or,
  - Double-clicking the `fa-server-installer-<version>.jar` in the release bundle.

---

**Notes:**

1. Double-clicking may not work due to system settings, but using the command line terminal should always work.
2. For 64-bit systems, if double-clicking to launch the installer, please ensure that the Java instance associated with the `jar` file type is 64-bit. Running the installer with a 32-bit Java instance will create a Windows service with the wrong executable.

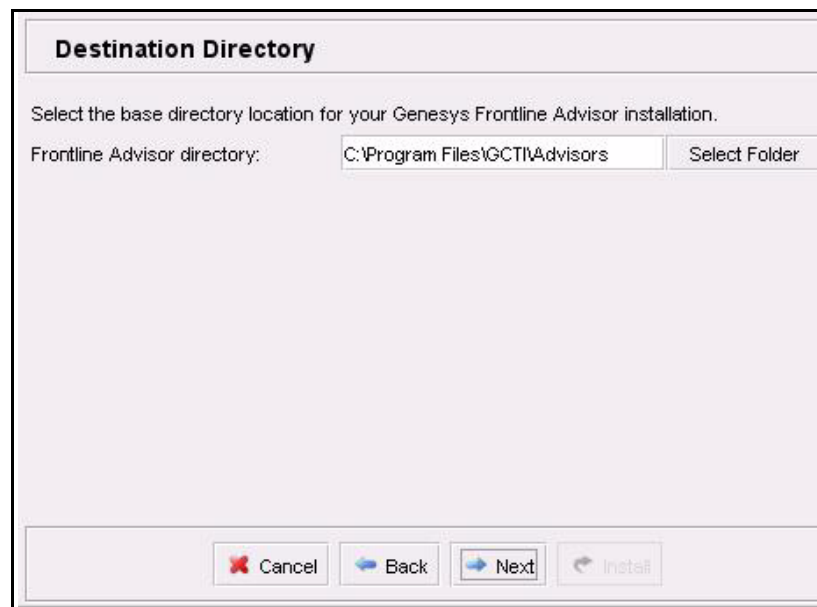
---

2. The Frontline Advisor Installer screen displays. Click Next.



**Figure 171:Frontline Advisor Installer Screen**

3. The Frontline Advisor Destination Directory screen displays.



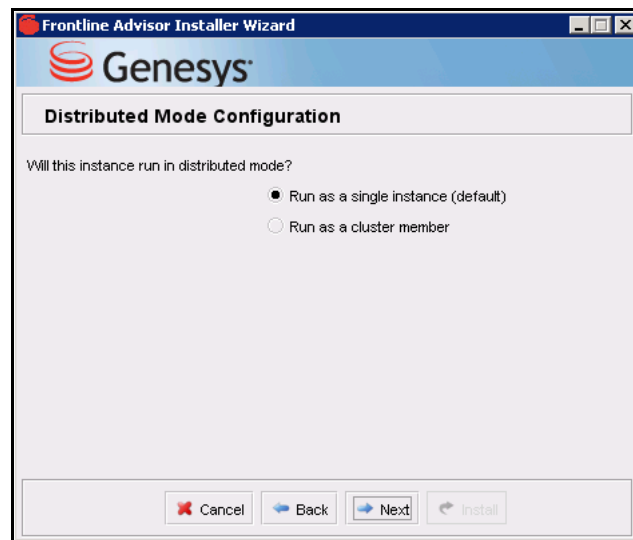
**Figure 172:Frontline Advisor Destination Directory**

4. Accept the default or install to a new location. The installation directory for Frontline Advisor server must be the same as the directory where Advisors Platform 8.1.x was installed.

5. Click Next. [Figure 173](#) shows the Distributed Mode Configuration screen, which is available starting in Release 8.1.5. If you are installing an earlier release of Advisors, go to [Step 7](#).

The FA installer requests information about FA distributed mode (see “Scaling the System to Increase Capacity” on [page 66](#)):

- If you are installing a single instance of Frontline Advisor, select the Run as a single instance option. This is the default setting. Go to [Step 7](#).
- If you are installing multiple FA instances for use in distributed mode, and this instance is one of those, select the Run as a cluster member option. Go to the next Step.



**Figure 173:**FA Distributed Mode Configuration screen

6. Click Next. [Figure 174](#) shows the Distributed Mode - Rollup Engine screen. Select one of the two options:
  - **Enable Rollup Engine option**—Enable the rollup engine if you intend the FA instance you are installing to be responsible for data aggregation. When installing Advisors Platform to support the FA instance on which the rollup engine is enabled, you must install the Administration workbench.

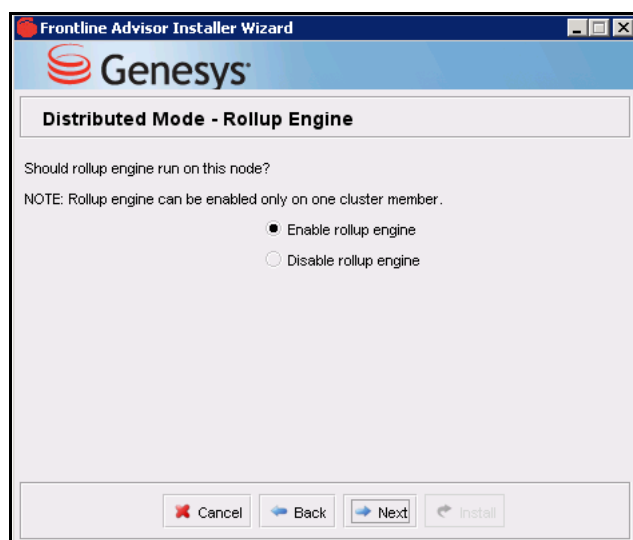
---

**Warning!** Enable the rollup engine for only one of the FA instances in a cluster.

---

- **Disable rollup engine option**—Disable the rollup engine if you intend the FA instance you are installing to be responsible for presentation only. Go to [Step 10](#). When installing Advisors Platform to support the FA instance on which the rollup engine is disabled, do not install the Administration workbench.





**Figure 174:FA Distributed Mode - Rollup Engine screen**

7. Click Next. The Hierarchy Source Details screen displays.



**Figure 175:Hierarchy Source Details screen**

8. Enter either:

- The name of the tenant in the Genesys Configuration Server in which the monitoring hierarchy resides, and the path to the hierarchy root folder.

---

**Note:** In a Cisco environment, the path should look like:  
Agent Groups\\<Your Cisco Group Name>.

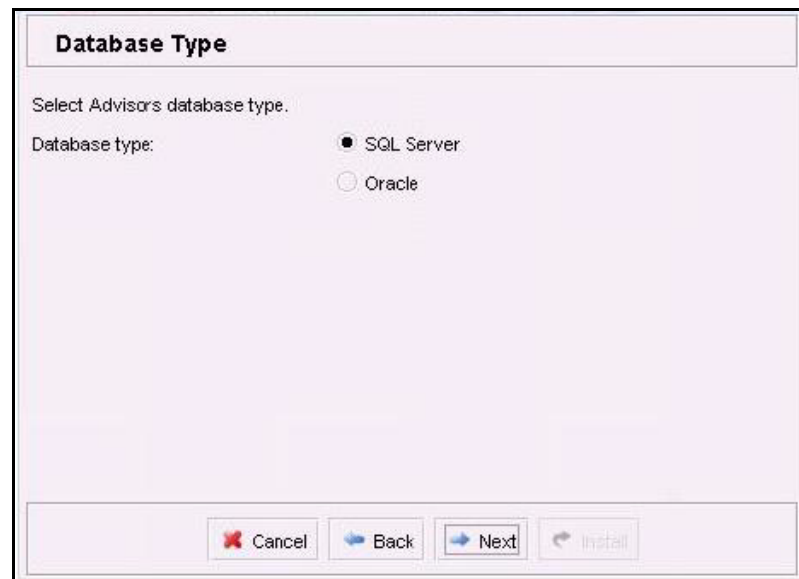
---

- The name of a Person folder in Configuration Manager, and the path to that Person folder. Selecting this option restricts the hierarchy view that is loaded at startup (or reloaded using the reload feature) to the team of agents belonging to that person (supervisor).
9. If you need to add more than one tenant or person, check the Add Another? check box, and complete the required details.
  10. Click Next. The Database Type screen displays.

---

**Note:** When using numerical IPv6 addresses, please enclose the literal in brackets.

---



**Figure 176:Database Type screen**

11. Select the database type for this installation:
  - SQL Server  
Click Next and go to [Step 12](#).
  - Oracle  
Click Next and go to [Step 15](#)
12. The Genesys Advisor Platform Database screen for MSSQL is displayed.

The screenshot shows a configuration window titled "Genesys Advisor Platform Database". It contains several input fields for database connectivity parameters. The "Database server" field is filled with "inf-dolphin". The "Database port number" field is filled with "1433". The "Database name" field is filled with "advisors\_platformdb". The "Database user" field is filled with "callcenter01". The "Database user password" and "Confirm database password" fields are filled with masked characters (dots). At the bottom, there are four buttons: "Cancel" (with a red X icon), "Back" (with a left arrow icon), "Next" (with a right arrow icon), and "Install" (with a circular arrow icon).

**Genesys Advisor Platform Database**

Host name, IP address, or named instance of the database server for the Platform database.

Database server:

The port number that the database server is listening on. If database server is a named instance, then omit the port number. (1433 is the default port number for MS SQL Server.)

Database port number:

Database name:

Database user:

Database user password:

Confirm database password:

**Figure 177: Genesys Advisor Database Screen for MSSQL**

13. Enter the database connectivity parameters for the already created or upgraded database (that is, the database must be present and at the current version prior to running the installer). These parameters are server (machine), port number, name, user, and password.

---

**Note:** When using numerical IPv6 addresses, please enclose the literal in brackets.

---

If the database server is a named instance, then omit the port number. Click Next. The Frontline Advisor (FA) Database screen for MSSQL displays.

**Frontline Advisor (FA) Database**

Host name, IP address, or named instance of the database server for the FA database.

Database server:

The port number that the database server is listening on.

Database port number:

Database name:

Database user:

Database password:

Confirm database password:

**Figure 178: Frontline Advisor (FA) Database Screen**

14. Enter the Frontline Advisor database connectivity parameters corresponding to those for the FA database:

- Database server (machine): for example, 192.168.40.70, or the host name of the machine where the Platform database is installed.

---

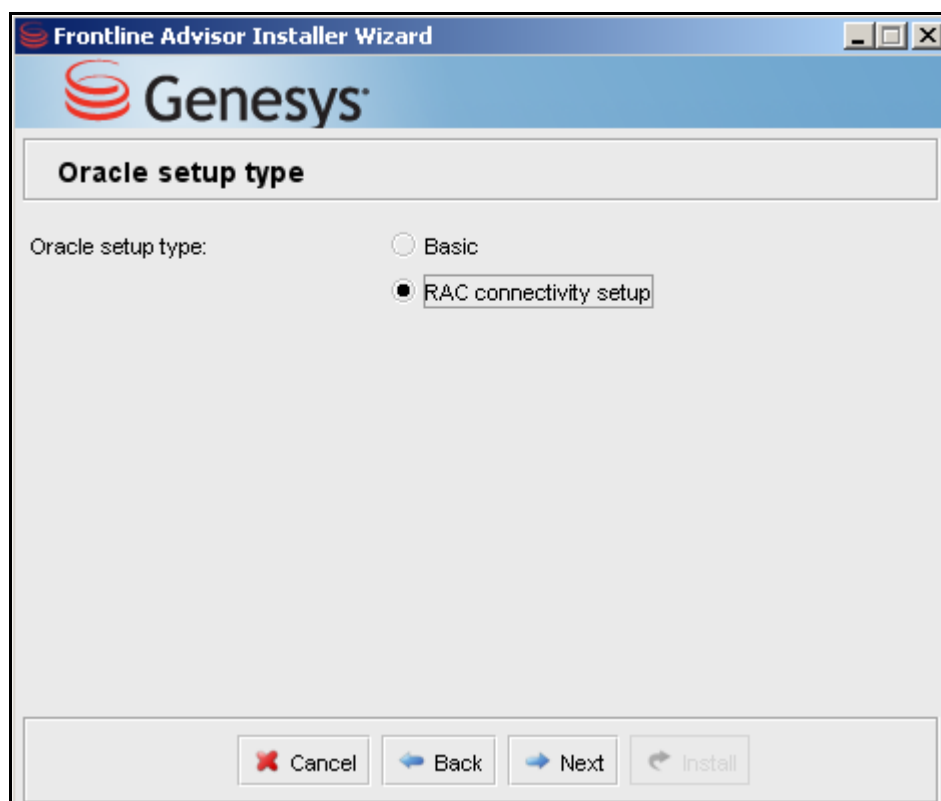
**Note:** When using numerical IPv6 addresses, please enclose the literal in brackets.

---

- Database port number: for example, 1433
- If the database server is a named instance, then omit the port number.
- Database name: for example, advisors\_fadb
- Database user: for example, advisor
- Database user password
- Confirm database password

Click Next and continue from [Step 19](#).

15. If you selected Oracle as the database type, and if the Oracle setup type screen is available in your FA installer (available starting in Release 8.1.4), select the Oracle setup option that describes your environment (see [Figure 179](#)):
  - Select the Basic option if you are using a single-instance Oracle database.
  - Select the RAC connectivity setup option to connect to Oracle RAC.



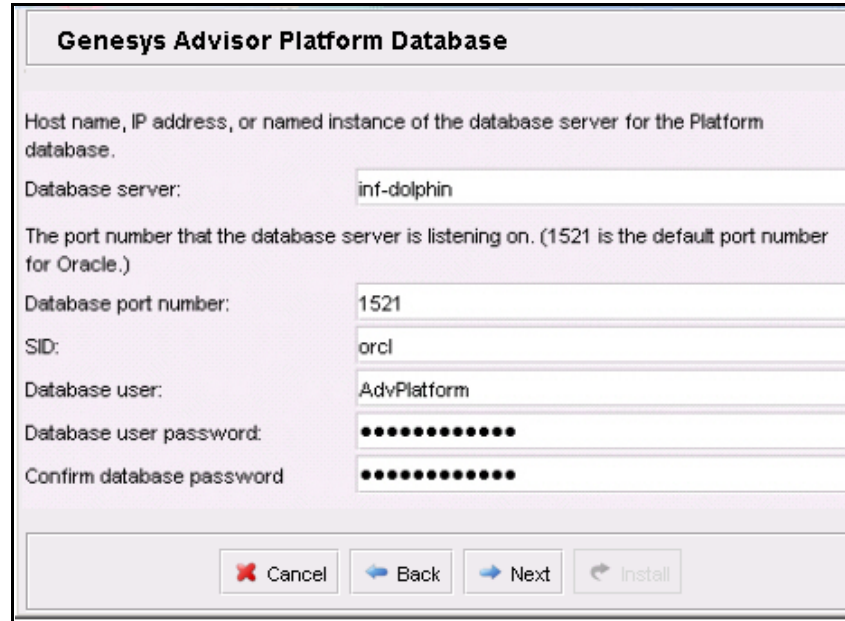
**Figure 179:FA Oracle Setup Type Screen**

16. Click Next. The Genesys Advisor Platform Database screen for Oracle is displayed.

**Basic Option:** See [Figure 180](#).

Specify the parameters for the Platform Oracle database:

- Database server—The host name or IP address of the database server
- Database port number—The database server's port number
- Database SID—Unique name of the database instance
- Database schema and Database user password—The database schema and password created / used for the Platform database



**Genesys Advisor Platform Database**

Host name, IP address, or named instance of the database server for the Platform database.

Database server:

The port number that the database server is listening on. (1521 is the default port number for Oracle.)

Database port number:

SID:

Database user:

Database user password:

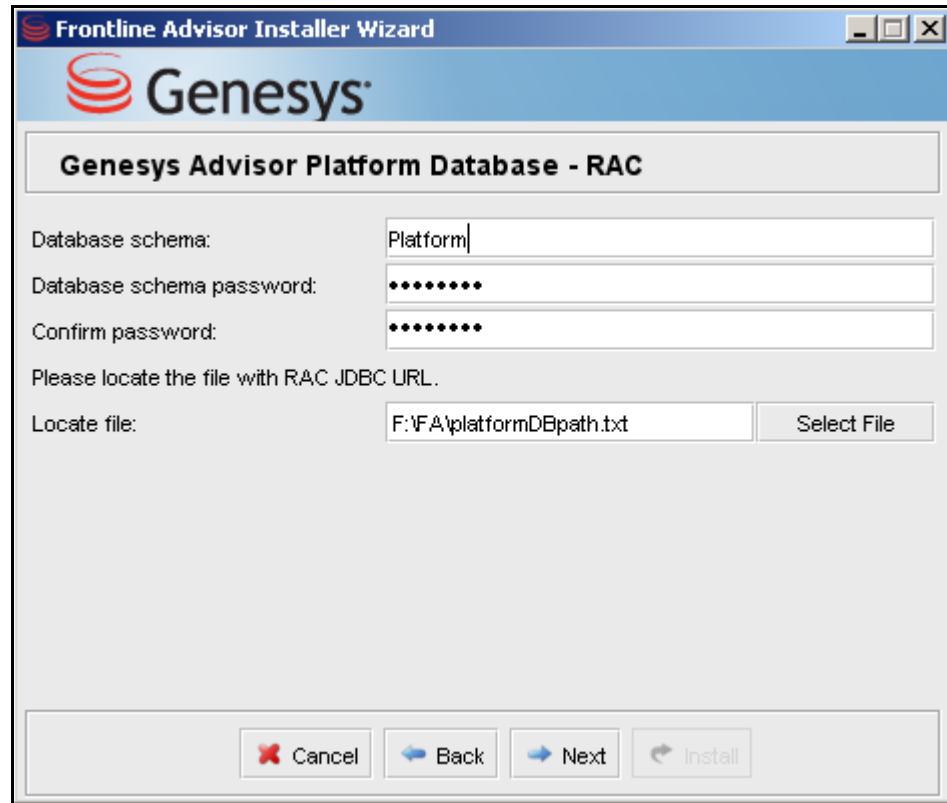
Confirm database password:

**Figure 180: Advisors Platform Database Screen for Oracle – Basic**

**RAC Connectivity Option:** See [Figure 181](#).

Specify the parameters for the Oracle RAC Platform database:

- Database schema and Database schema password—The database schema and password created / used for the Platform database
- Locate file—Enter the location of the file that contains the RAC JDBC URL (you should have the freeform JDBC URL in a text file). If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator. The installer applies the specified freeform JDBC URL when configuring the datasources.



**Figure 181: Advisors Platform Database Screen for Oracle – RAC**

17. Click Next. The FA Database screen for Oracle displays.

**Basic Option:** See [Figure 182](#).

Specify the parameters for the FA Oracle database:

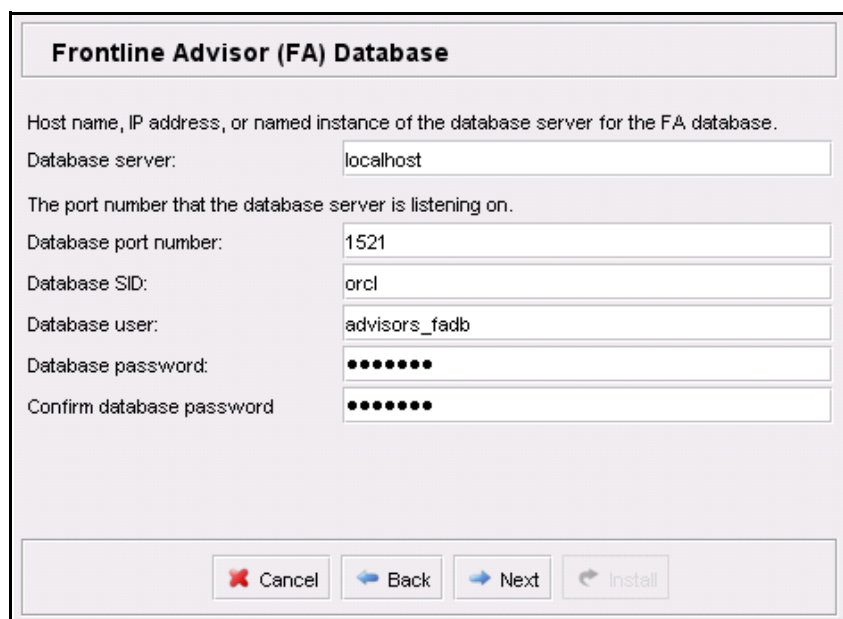
- Database Server—The host name or IP address of the database server

---

**Note:** When using numerical IPv6 addresses, please enclose the literal in brackets.

---

- Database port number—The database server's port number
- SID—The database instance alias.
- Database user and Database password—The database schema created / used for the FA database.



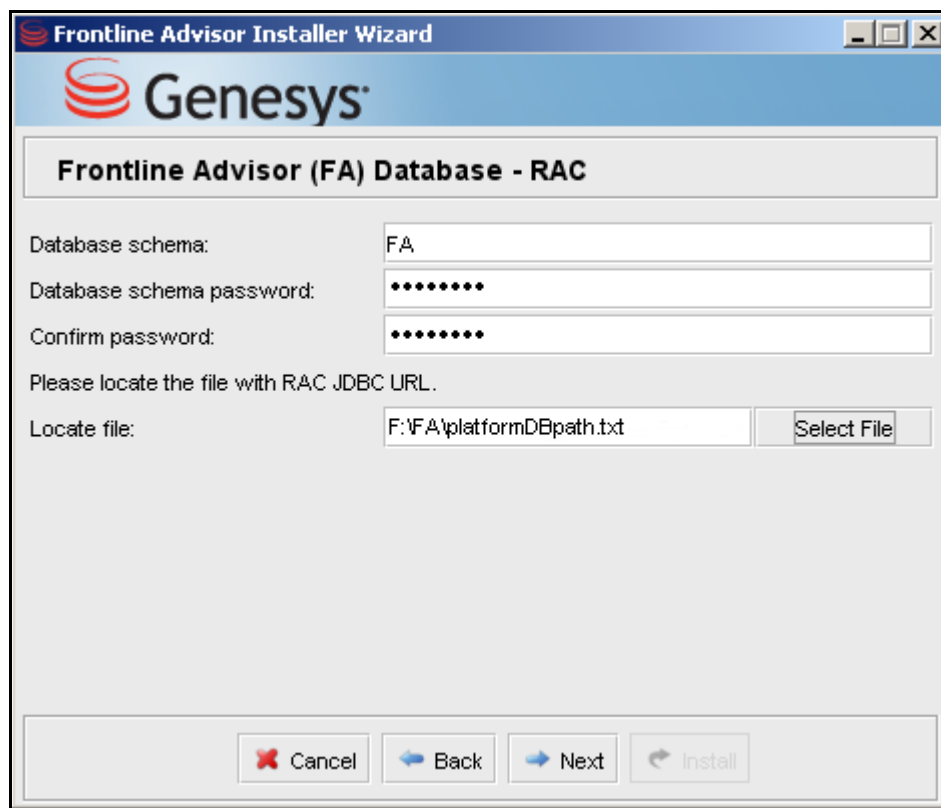
**Figure 182: Frontline Advisor Database Screen for Oracle – Basic**

**RAC Connectivity Option:** See [Figure 183](#).

Specify the parameters for the Oracle RAC FA database:

- Database schema and Database schema password—The database schema and password created / used for the Platform database
- Locate file—Enter the location of the file that contains the RAC JDBC URL (you should have the freeform JDBC URL in a text file). If you do not know the location of the Oracle RAC JDBC URL, contact your database administrator. The installer applies the specified freeform JDBC URL when configuring the datasources.



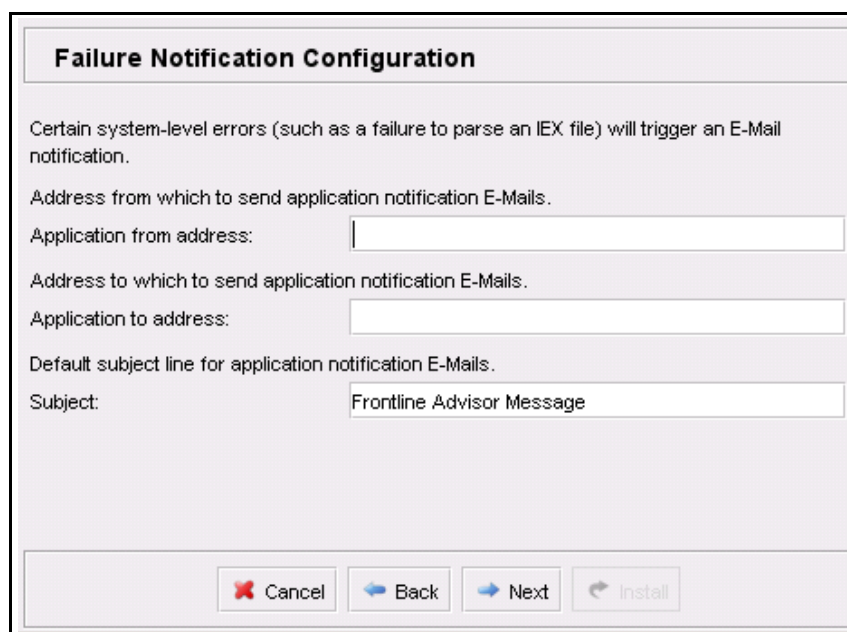


The screenshot shows the 'Frontline Advisor (FA) Database - RAC' screen of the Frontline Advisor Installer Wizard. The window has a blue header with the Genesys logo. The main area contains the following fields and controls:

- Database schema:** A text box containing 'FA'.
- Database schema password:** A password box with masked characters (dots).
- Confirm password:** A password box with masked characters (dots).
- Please locate the file with RAC JDBC URL.** A label above the file selection controls.
- Locate file:** A text box containing 'F:\FA\platformDBpath.txt' and a 'Select File' button.
- Navigation buttons:** At the bottom, there are four buttons: 'Cancel' (with a red X icon), 'Back' (with a left arrow icon), 'Next' (with a right arrow icon), and 'Install' (with a circular arrow icon).

**Figure 183:Frontline Advisor Database Screen for Oracle – RAC**

18. Click Next.
19. The Failure Notification Configuration screen displays.



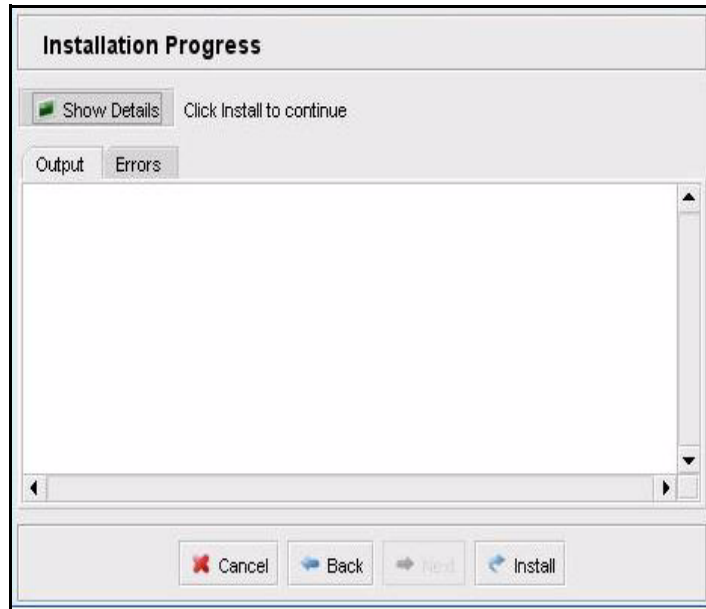
The screenshot shows the 'Failure Notification Configuration' screen. It has a light purple header with the title 'Failure Notification Configuration'. The main area contains the following text and fields:

- Text:** 'Certain system-level errors (such as a failure to parse an IEX file) will trigger an E-Mail notification.'
- Text:** 'Address from which to send application notification E-Mails.'
- Field:** 'Application from address:' followed by an empty text box.
- Text:** 'Address to which to send application notification E-Mails.'
- Field:** 'Application to address:' followed by an empty text box.
- Text:** 'Default subject line for application notification E-Mails.'
- Field:** 'Subject:' followed by a text box containing 'Frontline Advisor Message'.
- Navigation buttons:** At the bottom, there are four buttons: 'Cancel' (with a red X icon), 'Back' (with a left arrow icon), 'Next' (with a right arrow icon), and 'Install' (with a circular arrow icon).

**Figure 184:Failure Notification Configuration**

**20. Enter the e-mail parameters:**

- Application from address—For example, faadmin@genesyslab.com
- Application to address—For example, faadmin@genesyslab.com
- Subject—For example, Frontline Advisor Message

**21. Click Next. The Installation Progress screen displays. Click Install.****Figure 185:Installation Progress Screen****22. After installation is complete, modify the Apache configuration file (httpd.conf) and add the following (if necessary) along with the other ProxyPass entries configured for Platform:**

```
ProxyPass /fa/ ajp://<FA hostname>:8009/fa/
```

Restart of Apache is then required.

**End of procedure****Next Steps**

- “Running the Advisors Object Migration Wizard” on [page 397](#).

# Troubleshooting Installation Errors

The following are parameter validation errors that you may encounter at the end of installation:

**Table 14: Installation Error Messages**

| Error Message                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Cause                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <pre>[java] Failed to connect to the database using connection URL: [java] jdbc:sqlserver://192.168.xx.yy:nnn;DatabaseName=ys_fadb; user=sa;password=very_secure_pwd;selectMethod=cursor [java] The following exception was thrown: com.microsoft.sqlserver.jdbc.SQLServerException: The TCP/IP connection to the host 192.168.xx.yy, port nnn has failed. Error: "Connection refused. Verify the connection properties, check that an instance of SQL Server is running on the host and accepting TCP/IP connections at the port, and that no firewall is blocking TCP connections to the port.</pre>           | Wrong database server name / IP address or port number |
| <pre>[java] Failed to connect to the database using connection URL: [java] jdbc:sqlserver://192.168.xx.yy:nnnn;DatabaseName=NotA PlatformDB;selectMethod=cursor;user=sa;password=very_secure _pwd [java] The following exception was thrown: com.microsoft.sqlserver.jdbc.SQLServerException: The TCP/IP connection to the host 192.168.xx.yy, port nnnn has failed. Error: "connect timed out. Verify the connection properties, check that an instance of SQL Server is running on the host and accepting TCP/IP connections at the port, and that no firewall is blocking TCP connections to the port."</pre> | Wrong database name                                    |
| <pre>[java] Exception while connecting: Login failed for user 'badUserId'. [java] url used: jdbc:sqlserver://192.168.xx.yy:nnnn;DatabaseName=ys_fadb; selectMethod=cursor;user=badUserId;password=very_secure_ password</pre>                                                                                                                                                                                                                                                                                                                                                                                    | Wrong database user name or password                   |
| <pre>[loadfile] Unable to load file: java.io.FileNotFoundException: C:\ (The system cannot find the path specified)</pre>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Produced in error and can be ignored.                  |

---

# Starting the Frontline Advisor Service

---

## Procedure: Starting the Frontline Advisor Service

### Start of procedure

1. Follow the Platform instructions to install the Windows service.
2. Each time the service is started, the Monitoring Hierarchy Loader runs.
3. Start the service and refresh a few times to make sure the service stays running.
4. Check the Platform log file if you experience problems. It may take up to 45 minutes to fully start depending on the number of agents and the complexity of the hierarchy.

### End of procedure

---

**Note:** If you start the Frontline Advisor service from the command prompt, you must set the `MaxPermSize` parameter to 256 in the `setenv.bat` file. The FA log generates errors or exceptions if you start the service with the default setting of 128.

---

---

# Verifying Server Connections

## Verifying the Frontline Advisor Server Connection

In your browser, type:

```
http://<IP Address of FA Installation>:
8080/fa/com.informiam.fa.admin.gwt.AdminConsole/AdminConsole.html
```

If the server is configured correctly and this is the first time you are logging in, the Login page displays. If this is not the first time you are logging in, the Administration page displays. You can exit from the Internet Explorer browser.

## Verifying Apache Routing

Using a normal web browser to connect directly to the Apache server, log in and check the site. Use a URL that contains the host or IP address (and, optionally, the port if not on port 80) of the Apache server.

If configured correctly, the Login page displays. You can exit from the Internet Explorer browser.

## Verifying the Genesys Advisor Browser Connection

To check the Frontline Advisor application, launch the Genesys Advisors browser, log in, and check the site.

## Integrating External Links

To configure external links on the Manager Console and Agent Console, change the contents of the property file named `FrontlineAdvisor.properties` which is located in the Frontline Advisor installation directory under `C:\Program Files\GCTI\Advisors\conf`

In addition to setting the URL links, additional parameters can optionally be used:

- `user`
- `moduleId`
- `TeamId`
- `errorCode`

The links can be changed after starting Frontline Advisor. Frontline Advisor must be restarted in order to reflect the changes to the links.

The following are acceptable link-in URLs for Genesys Advisors.

- `informiam://[host]/?user=[user_login]&module=FAAgentConsole`
- `informiam://[host]/?user=[user_login]&module=FASupervisorConsole`
- `informiam://[host]/?user=[user_login]&module=FAAdmin`

The module in the URL represents the code value of each module in Frontline Advisor Agent Advisor module table. Those values might be passed out to an external application by the link-out URL parameters.

The user must enter a password to log in to the Genesys Advisors by link-in URLs.

The following is an example of an acceptable link-out URL that follows the URL template:

`http://somehost?user&moduleId&teamId&errorCode`

- `user`  
Filled in by the server when the user is authenticated.
- `moduleId`  
Retrieved from the Platform database (MODULE table) based on the application deployment URL (such as, `/fa/SupervisorConsole`) provided by the client that requests the link-out URL.

The DBA on the client site must put a job in place that truncates the `FA_Violations_Archive` table. This truncation should take place on a schedule defined by customer requirements.

## Changing the Values at the Enterprise Node

The rules and thresholds are defined but disabled by default at the Enterprise level and cannot be removed from that level. Once the application starts up, these values can be changed and overridden at lower levels of the hierarchy for lower levels of control.

---

## Configuring the Reason Code Statistic Key

You can specify the key that is used for the reason code statistic for a specific deployment. By default, Frontline Advisor displays all key value pairs attached to the agent reason code statistic.

To filter reason codes to display only those corresponding to a single reason code key, you can run an Update SQL script.

In releases 8.1.2 to 8.1.4, run the following Update SQL script on the Genesys Adapter configuration database to specify the reason code key:

```
Update gc_metric_definitions set conversiontype = <ReasonCodeKey> where
metricid = 107
```

For example, to specify a reason code key of `ReasonCode`, run the following SQL script:

```
Update gc_metric_definitions set conversiontype = 'ReasonCode' where
metricid = 107
```

You must restart Genesys Adapter after executing the script.

In release 8.1.5 and later, run the following Update SQL script on the platform database:

```
Update GENESYS_SS_SOURCE_METRICS set ReasonCodeKey = <ReasonCodeKey>
where metricId = 107
```

You must restart the Advisors platform application server and Frontline Advisor adapter(s) after executing the preceding script if the server and adapters are in active service and running.

---

## Enabling and Editing Filtered Metrics

Beginning in Release 8.1.4, Frontline Advisor includes performance metrics for which you must configure a filter to display the metrics for selection in the Column Chooser. For information about which metrics are enabled and which require filters when you install the 8.1.4 and later software releases, see

*Performance Management Advisors 8.1 Frontline Advisor Administration User's Guide.*

---

**Note:** The enabled filtered metrics are for use with the Advisors Genesys Adapter only. The Advisors Cisco Adapter cannot provide data for the filtered metrics.

---

Filters are for metrics of the following types:

- ACD interactions
- Non-ACD interactions
- Not Ready Time, Filter  $x$ , where  $x=1, 2, \dots, 9$

If you do not configure the filters, Frontline Advisor does not request statistics for these metrics from the Advisors Genesys Adapter and does not display them as options in the dashboard Column Chooser. If you configure one or more filters, the associated source metrics are enabled, as well as the team-level metrics that are dependent on the filtered source metrics for their aggregation.

There is a stored procedure, `FA_Configured_Filtered_Metrics`, in the Frontline Advisor database after you upgrade to Release 8.1.4 or later. You can use this procedure to enable the filtered metrics. Specify one or more filter names depending on the filters (and associated metrics) you want to activate. After you configure a filter name, the procedure creates entries in the `FA_Metrics`, `FA_Thresholds`, and `FA_Threshold_Patterns` tables. The filter names you specify display only in the tables. After you enable the filters, the associated metrics behave like other performance metrics. To rename a filter, run the procedure again. The existing metric and threshold are updated.

---

## Procedure:

### Enabling filtered metrics for Frontline Advisor

#### Prerequisites

- Frontline Advisor Release 8.1.4 or later must be installed.

#### Start of procedure

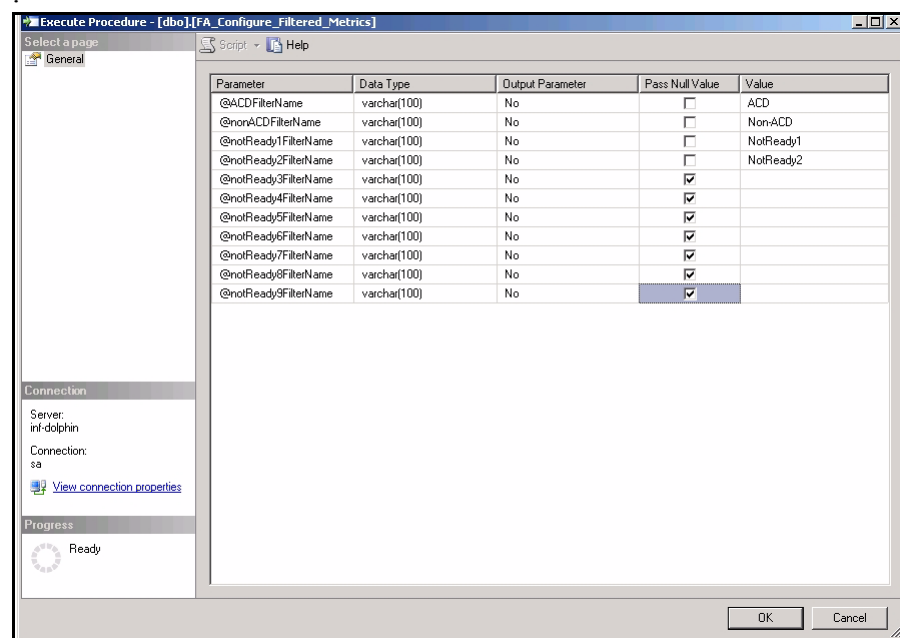
1. Open the `FA_Configured_Filtered_Metrics` stored procedure in the Frontline Advisor database.
2. Enter a name (value) for any filter that you want to enable.  
Enabling the filter enables all metrics associated with that filter, both source and team-level aggregated metrics that are dependent on the enabled source metrics for calculations.
3. Ensure a null value is configured for filters (and associated metrics) that you want to suppress.

## 4. Click OK.

**End of procedure****Next Steps**

- After the metrics are enabled, they must be imported into the Configuration Server using the Advisors Object Migration Wizard (select Frontline Advisor Metrics when prompted for the migration path). For more information, see “Running the Advisors Object Migration Wizard” on [page 397](#). Running the Advisors Object Migration Wizard creates corresponding business attribute values for the enabled metrics. As with other FA metrics, you must grant permissions to Read these values for allowed supervisors.
- You must restart the Frontline Advisor server for the new metric information to load and be available in the Column Chooser.

[Figure 186](#) and [Figure 187](#) show examples of configuring filter names to enable metrics. A null value is used for filters for which you do not configure a name. Metrics associated with the null value filters are suppressed in the Column Chooser (that is, those metrics are unavailable for use on the dashboard and no thresholds are available for those metrics).



**Figure 186:Configuring the filtered metrics with an MS SQL Server database**



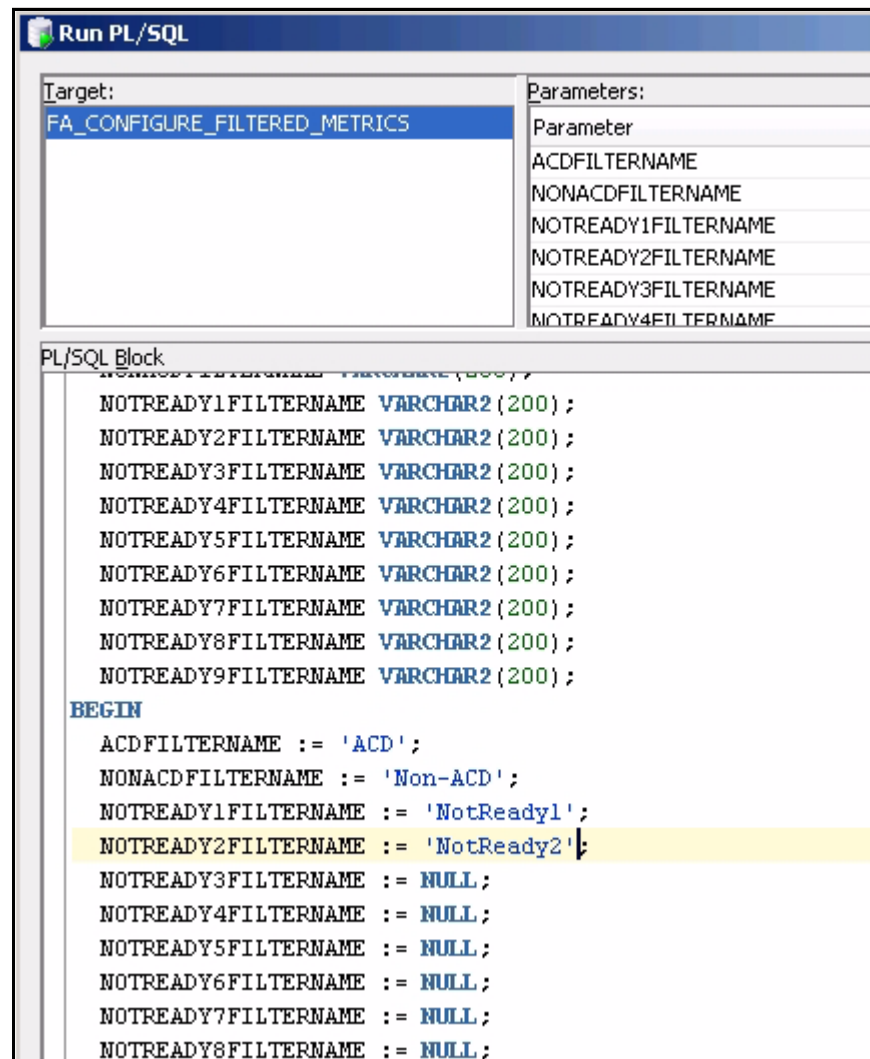


Figure 187: Configuring the filtered metrics with an Oracle database

## Procedure:

### Editing the name of a filtered metric

#### Prerequisites

- Frontline Advisor Release 8.1.4 or later must be installed.
- At least one filtered metric is enabled.

#### Start of procedure

1. Stop Frontline Advisor if it is running.
2. Open the FA\_Configured\_Filtered\_Metrics stored procedure in the Frontline Advisor database.

3. Update the existing name (value) for a filtered metric.  
You can edit the name of any previously-enabled filtered metric. Deleting the name and entering a null value does not disable the filtered metric – you cannot use the stored procedure to disable filtered metrics.
4. Click OK.

**End of procedure**

---

## FA Message Listening Port

Starting in Release 8.1.5, Frontline Advisor performs metric rollups in memory. Previously, FA performed the metric rollups through database stored procedures.

Genesys Adapters report source metrics directly to FA using a persistent connection. When an FA instance initially requests to register with an adapter, the request includes the host and port on which FA is listening for inbound connections. The host information is retrieved from the `Cluster_Member` table in the Platform database. The `message.listening.port` entry in the `FrontlineAdvisor.properties` configuration file specifies the port. The value may be a static port number, or zero. Zero means that FA should use any available port. The default value is static port 8350.

# 11

## Bulk Configuration

Starting in Release 8.1.3, you can perform a bulk configuration of Contact Groups for Workforce Advisor. Starting in Release 8.1.5, you can also perform a bulk configuration of Contact Center Advisor objects.

This chapter contains the following sections:

- [Before you Begin, page 355](#)
- [Bulk Configuration of CCAdv/WA in Integrated Mode, page 356](#)
- [Bulk Configuration of CCAdv in Independent Configuration Mode, page 370](#)
- [Bulk Configuration of Workforce Advisor in Independent Configuration Mode, page 381](#)

---

### Before you Begin

The bulk configuration tool allows you to quickly configure Contact Center Advisor (CCAdv), Workforce Advisor (WA), or both outside of the Advisors Administration module. The tool configures CCAdv, WA, or both based on the lists of objects you define and export from other systems and load into temporary structures in the Advisors Platform database. The bulk configuration tool retrieves the data from the temporary structures, validates it, and transforms it into CCAdv, WA, or CCAdv/WA rollup configuration.

You can use spreadsheets or CSV files to collect the configuration information into a simple file structure that can be loaded into a database table.

Templates of Excel spreadsheets are supplied in the installation package.

Alternatively, you can omit the file preparation and load the data directly into the database table from the sources available through your relational database management system (RDBMS).

The bulk configuration procedures for CCAdv and WA can be executed on the Platform Oracle schema or Advisors Platform MS SQL Server database.

In Advisors Release 8.1.5, the configuration logic, rollups, and dashboard views depend on which of the following two configuration modes you select:

- integrated configuration mode: you can configure CCAdv and WA simultaneously if the aggregation mappings of WA contact groups are expected to match the aggregation mappings of the applications related to those contact groups. Set the integrated configuration mode for CCAdv and WA and use the bulk configuration tool for integrated mode. Contact groups listed in the prepared data structures inherit the aggregation mappings specified for the relevant CCAdv applications.
- independent configuration mode: if you require the aggregation mappings to be different between CCAdv and WA, set the independent configuration mode and use the bulk configuration tools for the independent mode.

For information about the configuration modes and how to set the mode, see “CCAdv/WA Modes” on [page 47](#). You must select the configuration mode before you perform bulk configuration.

---

## Bulk Configuration of CCAdv/WA in Integrated Mode

Use the CCAdv/WA bulk configuration tool when you run CCAdv and WA in integrated configuration mode. When you set the integrated configuration mode:

- Agent group-to-application relationships are automatically propagated to the configured contact groups mapped to these applications.
- Applications are available for mapping to a contact group only if they are configured and have a compatible aggregation structure with this contact group.
- Applications mapped to contact groups are included in the WA rollup only if those applications are configured and have a compatible aggregation structure. Any change of application configuration for CCAdv, or a change of contact group configuration for WA that makes the aggregation structures incompatible, removes the application from WA configuration.

A configured application and a configured contact group mapped to a non-AGCC contact center have *compatible aggregation structures* if both are mapped to the same contact center, application group, and regions.

A configured application and a configured contact group mapped to an AGCC contact center have *compatible aggregation structures* if both are mapped to the same application group and regions and the application is mapped to a contact center that represents a parent of the AGCC to which the contact group is mapped.

- Agent groups cannot be mapped to network contact center (NCC) contact groups directly. The list of available agent groups is always empty for NCC contact groups, while the list of assigned agent groups represents the agent groups derived from the contact group-application-agent group relationships.
- Agent groups mapped to an agent group contact center (AGCC) can be mapped to contact groups associated with the AGCC, but they are not included in WA dashboard views until mapped to an application that belongs to the parent NCC and that has a compatible aggregation structure.

## Database Structures, Scripts, and Procedures

An object creation script, `blkObjectsCre.sql`, is supplied in the installation package, in the `sql\oracle\bulkconfig\integrated\ccadv-wa-bulkload` folder. You must execute `blkObjectsCre.sql` as a script – not as a statement – if opened and executed from the SQL Developer SQL Worksheet.

You apply the `blkObjectsCre.sql` object creation script to the Platform schema to create the following tables, which are required for the contact group bulk configuration:

- `blkAllNames`
- `blkAllAgntGr`
- `blkAllLog`

You must create all of the preceding tables, but the content is optional. Any and all tables can remain empty. Empty tables do not impact the configuration in any way.

Objects already present in CCAdv/WA configuration, but absent from these tables, remain in the WA configuration after you perform the bulk configuration procedure.

### Stored Procedure for Bulk Configuration

You implement the bulk configuration by running a stored procedure, `spblkConfigCCAdvWAIIntegrated`, which is also created when you run the `blkObjectsCre.sql` script. You execute the procedure against the Platform Oracle schema, or against the Advisors Platform MS SQL Server database, after all base data is prepared in the tables created by running the `blkObjectsCre.sql` script.

### Script to Remove Objects Used in Bulk Configuration Process

The `blkObjectsDrop.sql` script removes all objects used in the bulk configuration (such as the tables that the `blkObjectsCre.sql` script creates). You must execute the `blkObjectsDrop.sql` script before you switch to the

independent configuration mode and use bulk configuration tools for that mode.

## Stored Procedure for Removing Configuration

You can quickly and completely remove all CCAdv application, agent group and related AGCCs configuration created inside or outside the bulk configuration tool. To remove the configuration, execute the `spbulkRemoveConfigCCAdv` stored procedure.

---

**Note:** In integrated configuration mode, WA configuration depends on the CCAdv configuration. The removal of CCAdv configuration also removes parts of the WA configuration, specifically all relationships of contact groups to applications and agent groups. As a result, the WA dashboard will not contain real-time metrics and agent groups. If you restore the CCAdv configuration, all WA relationships will be restored, unless the WA configuration removal procedure is applied before the CCAdv configuration is restored.

---

Execute the `spbulkRemoveConfigWA` stored procedure to remove the WA contact group configuration including relationships to applications, agent groups, and agent group contact centers and to remove the agent group contact centers associated with WA.

Executing the `spbulkRemoveConfigCCAdv` procedure – Oracle:

```
DECLARE
M VARCHAR2(200)
R NUMBER
BEGIN
"spbulkRemoveConfigCCAdv"
(
M => M,
R => R
);
END
```

Executing the `spbulkRemoveConfigWA` procedure (Oracle):

```
DECLARE
M VARCHAR2(200)
R NUMBER
BEGIN
"spbulkRemoveConfigWA"
(
M => M,
```

```

R => R
);
END

```

Or in an MS SQL Server installation, execute the procedure as follows:

```

USE <name of Advisors platform database>
GO
DECLARE@m varchar(255),
@r int
EXEC spblkRemoveConfigWA
@m = @m OUTPUT,
@r = @r OUTPUT
SELECT @m as N'@m',
@r as N'@r'
GO

```

```

DECLARE@m varchar(255),
@r int
EXEC spblkRemoveConfigCCAAdv
@m = @m OUTPUT,
@r = @r OUTPUT
SELECT @m as N'@m',
@r as N'@r'
GO

```

**Important** The procedure will remove all data left from previous configurations that may have a negative impact on the new configurations. It can be very useful before the configuration mode is changed.

To be able to restore the configuration, you must have a reliable set of bulk configuration files or blk tables that you can use to re-load the configuration. Before you execute the configuration removal procedures, make sure that such data exists.

You also can execute the bulk configuration removal procedures if you are comfortable with the current configuration loss and want to re-configure the applications from the beginning.

The configuration removal procedure does not remove the data from blk files. Those are always preserved unless the tables are dropped by running the blkObjectsDrop.sql script.

## Prerequisites and Preparations

- The application server and XML Generator service must be up and successfully running until the required data (see the following three bullets) displays on the pages of the Advisors Administration module. To ensure that the import runs successfully, check the XML Generator log for import-related errors.
- Log in to the Advisors application; Advisors automatically imports all relevant aggregated objects (regions, operating units, contact centers, and application groups) from the Genesys Configuration Server.
- All relevant applications and agent groups have been automatically imported by XML Generator, and are available for configuration.
- If WA configuration is included in the bulk data, all relevant contact groups have been automatically imported by the WA server from the WFM system(s) specified during Advisors installation, and are available for configuration.
- Prior to bulk configuration, ensure that all relevant application groups, reporting regions, geographic regions, operating units, and network contact centers are configured. You configure these manually using Advisors administration module.
- No existing configuration is removed when using the bulk configuration tool. If any objects are already configured, or any application-to-agent group relationships are added manually (using the Administration module), they are not removed by the bulk configuration tool. The tool adds to the configuration or changes the mappings of the existing configured objects based on the data contained in the temporary structures.
- If an AGCC does not already exist, one is created by the bulk configuration procedure under every network call center where each application mapped to it (that is, to the NCC) is also mapped to an agent group and that agent group is mapped to an AGCC.

Genesys recommends that all aggregated objects participating in CCAAdv/WA configuration are activated in Advisors administration module prior to performing bulk configuration. Optionally, you can complete this step after bulk configuration. In either case, it is required to make the objects visible on the dashboard view.

## Bulk Configuration of CCAAdv/WA in Integrated Configuration Mode

The following procedure summarizes the steps to perform bulk configuration of CCAAdv and WA when you use the applications in integrated configuration mode. The information following this procedure provides additional information to assist you.



---

## Procedure: Bulk Configuration – CCAdv/WA Integrated Configuration Mode

### Start of procedure

1. Start Advisors Application Server and XML Generator.
2. Watch the XML Generator and Geronimo logs.  
The logs must be free of any import-related errors.
3. Allow the Advisors application to run for approximately 10 minutes.
4. Open the Administration module in the browser.
5. When the aggregated objects are available, configure all those that you plan to use in CCAdv/WA rollups (see [“Prerequisites and Preparations”](#)).
6. Open each of the following pages and ensure that you can see objects among the available and/or configured object lists, as applicable:
  - Application Configuration page
  - Agent Group Configuration page
  - Contact Group Configuration page
7. Connect to the Oracle or MS SQL instance as the platform user.
8. Execute the blkObjectsCre.sql script.  
You must execute blkObjectsCre.sql as a script – not as a statement – if opened and executed from the SQL Developer SQL Worksheet.
9. Populate the database tables with your contact group data.  
For information about preparing your data, see [“Data Preparation”](#).  
For information about importing data from spreadsheets to the database, see [“Loading Data from Spreadsheets into Temporary Database Structures”](#).

10. Execute the `spblkConfigCCAdvWAIIntegrated` procedure; for example, use the following string with an Oracle schema:

```
DECLARE
M VARCHAR2(200)
R NUMBER
BEGIN

"spblkConfigCCAdvWAIIntegrated"(
M => M,
R => R
)
END
```

Or in an MS SQL Server installation, execute the procedure as follows:

```
USE <name of Advisors platform database>
GO
DECLARE@m varchar(255),
 @r int

EXEC spblkConfigCCAdvWAIIntegrated
 @m = @m OUTPUT,
 @r = @r OUTPUT

SELECT @m as N'@m',
 @r as N'@r'

GO
```

11. Verify the log stored in the `blkAllLog` table.

For information about logs related to the bulk configuration, see “Bulk Configuration Validation and Logs” on [page 368](#).

12. Correct the data, if necessary, and go back to [Step 10](#).
13. Examine all relevant configuration pages in the Advisors Administration module to verify the configuration.
14. Examine the dashboards to verify the configuration.
15. Do one of the following:
  - a. If you are satisfied with the resulting configuration, connect to the Oracle instance as platform user and execute the `blkObjectsDrop.sql` script to remove all temporary structures and bulk load procedures.
  - b. If you are not satisfied with the resulting configuration, go to [Step 12](#). Alternatively, if you see unpredictable results, and you have a reliable set of bulk configuration data loaded into `blk` tables, you can remove

the whole CCAdv/WA configuration by executing the CCAdv and WA configuration removal procedures. After that you can reload the configuration as described in [Step 10](#).

You can remove the whole configuration by executing the following (Oracle):

```
DECLARE
M VARCHAR2(200)
R NUMBER
BEGIN
"spblkRemoveConfigCCAdv"
(
M => M,
R => R
);
END
```

```
DECLARE
M VARCHAR2(200)
R NUMBER
BEGIN
"spblkRemoveConfigWA"
(
M => M,
R => R
);
END
```

In MSSQL Server installations the procedure calls are done as follows:

```
USE <name of Advisors platform database>
GO
```

```
DECLARE@m varchar(255),
 @r int

EXEC spblkRemoveConfigCCAdv
 @m = @m OUTPUT,
 @r = @r OUTPUT

SELECT @m as N'@m',
 @r as N'@r'
```

```
GO
```

```
DECLARE @m varchar(255),
```

```

 @r int

EXEC spblkRemoveConfigWA
 @m = @m OUTPUT,
 @r = @r OUTPUT

SELECT @m as N'@m',
 @r as N'@r'

GO

```

**End of procedure**

## Data Preparation

You can use spreadsheets or CSV files to collect data in a simple file structure that can be loaded into a database table. Data preparation for WA can be done while doing data preparation for CCAdv.

Alternatively, you can omit the file preparation and load the data directly into the database table from the sources available through your relational database management system (RDBMS).

If you use spreadsheets or CSV files to collect your data, use the information in this section.

## Applications

Your spreadsheet or CSV file contains the list of all application names that need to be configured together with the corresponding application display names, contact center names, application group names, reporting region, and operating unit names. Your file must contain eight columns with headers (headers are mandatory), and provide the following information:

- Application Name
- Application Display Name
- Contact Center Name
- Application Group Name
- Reporting Region Name
- Operating Unit Name
- Contact Group Name
- Contact Group Display Name

Add relevant data to the spreadsheet or file under the corresponding column headers. You then import this data into the blkAllNames database table. To expedite the import of the data from the file into the database table, use the

column names exactly as they are used in the associated blkAppNames database table.

### Guidelines

Use the following guidelines when preparing your data for bulk configuration:

- If a display name, reporting region, or operating unit is not defined, you must leave the related cell empty (that is, do not populate the cell with N/A or any other identifier). The reporting region or the operating unit must have a valid name – both cells cannot be empty. The whole content of the data row is rejected if any incomplete configuration is detected or there are names that cannot be resolved.
- Each application name (that is, the application name shown on the Application rollup page in the Administration module) must match the name contained in the tmpImportCallType.PeripheralName, tmpImportInteractionQueue.PeripheralName, or tmpImportApp.PeripheralName column of the Platform database.
- Each contact center name must match the name contained in the CALL\_CENTER.NAME column of the Platform database.
- Each application group name must match the name contained in the APPLICATION.NAME column of the Platform database.
- Each reporting region name must match the name contained in the REGION.NAME column of the Platform database, where TYPE='R'.
- Each operating unit name must match the name contained in the REGION.NAME column of the Platform database, where TYPE='O'.
- If used, each contact group name must match the name contained in the CONTACT\_GROUP.NAME column of the Platform database.
- Include only contact groups that will be mapped to applications; do not include contact groups that you do not want mapped to applications.

WA does not support interaction queues. Any contact groups specified and associated with interaction queues are ignored.

## Application-to-Agent Group Relationships

Your spreadsheet or CSV file contains a list of application names, agent group names, and display names. If the related agent groups must be assigned to agent group contact centers (AGCC), you also specify the names of these AGCCs. If the specified agent group contact center does not exist, the tool creates it, but only if the related application is already mapped to a contact center or listed in the blkAllNames table. If no AGCC, contact group, or display name needs to be specified, leave the corresponding field(s) empty.

This structure is not used for application-to-contact group mapping. A contact group is mentioned in this structure only if you want the contact group to be assigned to an AGCC and the associated agent group.

Your file must contain five columns with headers and provides the following information:

- Application Name
- Agent Group Name
- Agent Group Contact Center Name
- Contact Group Name
- Contact Group Display Name

Add relevant data to the spreadsheet or file under the corresponding column headers. You then import this data into the blkAllAgntGr database table. To expedite the import of the data from the file into the database table, use the column names exactly as they are used in the associated blkAppAgntGr database table.

#### Guidelines

- Each agent group name must match the name contained in the tmpImportSkill.EnterpriseName column of the Platform database.

## Loading Data from Spreadsheets into Temporary Database Structures

Import content from the spreadsheets or files into the relevant columns of the corresponding database tables using the Oracle SQL Developer or the MS SQL import option. Follow the procedure for each table.

---

### Procedure: Importing Content into Tables (Oracle)

#### Start of procedure

1. Open SQL Developer and register a connection to the Advisors Platform schema.
2. Navigate to the Advisors platform schema, then to each created table.
3. Right-click on a table and select the Import Data ... option from the menu.
4. Navigate to the relevant file and select it.
5. Follow the SqlDeveloper Import Data Wizard instructions; the wizard guides you through the import process.

#### End of procedure

Ensure that you verify the data for each step of the Data Import Wizard, in particular:

- Review the data on the Data Preview screen to ensure accuracy.
- Ensure you exclude any unrelated columns that might be present in the file. It is best if you remove unwanted columns from the file before you start the import, rather than excluding columns each time you run the import wizard.
- Ensure that you correctly map columns in the database table to columns in the file. Verify each and every column.
- Verify the parameters before import.

See the SQL Developer documentation if you have questions related to data import using SQL Developer.

---

## Procedure: Importing Content into Tables (MS SQL)

### Start of procedure

1. Open Microsoft SQL Server Management Studio and register a connection to Advisors Platform database.
2. Navigate to the Advisors Platform database and launch the import tool for one of the created tables.
3. Following the import wizard instructions.
4. Import the data from each file that contains prepared configuration data.  
With MS SQL Server, data can be loaded in one import session if you use Microsoft Excel and the data is consolidated into one spreadsheet with tabs representing the content of each table.

---

**Note:** You must match each spreadsheet with a destination table. Ensure you choose the table that was created for bulk configuration and not the one suggested by the wizard..

---

### End of procedure

Ensure that you verify the data for each step of the Data Import Wizard, in particular:

- Review the data on the Data Preview screen to ensure accuracy.
- Ensure you exclude any unrelated columns that might be present in the file. It is best if you remove unwanted columns from the file before you start the import, rather than excluding columns each time you run the import wizard.
- Ensure that you correctly map columns in the database table to columns in the file. Verify each and every column.

See the MS SQL Server documentation if you have questions related to data import using Microsoft SQL Server Management Studio.

---

**Note:** MSSQL Server Import is very sensitive to special characters which, if present in the files, can trigger import failure accompanied by a message that may seem completely unrelated and will not explain the actual reason. Make sure that the files are clean. Special characters are often invisible and to avoid import failure, you need to check the files for unnecessary empty trailing spaces, empty rows or formatting and remove them before you proceed with the import. While preparing the data, do not copy it from web pages or forms that may contain such characters.

---

## Bulk Configuration Validation and Logs

The contact group bulk configuration procedure (spblkConfigCCadvWAIntegrated) validates each record in the database blk structures. The procedure does not add to the configuration if any serious misconfiguration is discovered in the blk tables. Instead, the procedure records a message in the blkAllLog table and exits. Always review the blkAllLog table content; note rows that contain an asterisk (\*). The asterisks typically indicate problems with data in the tables. The number of asterisks normally indicates the number of found issues in the configuration for the related object. See [“Prerequisites and Preparations”](#) and [“Data Preparation”](#) for information about correct data preparation.

Examine the log to see if you encountered errors when performing the bulk configuration. If there are errors reported in the log, correct the data in the spreadsheets or files, and reload the content to the related tables and columns. You can also correct the data directly in the tables and then save the change for the future by exporting the new table content into the files. You can correct only some of the records leaving the rest intact. When you execute the bulk configuration procedure, the procedure applies changes to objects present in both the CCA and WA parts of bulk configuration tables.

Re-run the procedure to complete or correct the configuration using the updated data. Repeat the process as many times as necessary. The procedure does not reduce existing configuration. The procedure applies all modifications and additions that occurred in the blk tables after your previous execution of the procedure. Any deletion of data from the blk tables, however, is ignored.

The resulting configuration can be verified from the Advisor Administration module and on the dashboard.



## Correct Configuration Validation in Advisors Administration Module

Execution of the `spblkConfigCCAdvWAIntegrated` procedure results in the following configuration, which you can validate in the Advisors Administration module:

- Associates applications contained in the `blkAllNames` table with contact centers, application groups, reporting regions, and operating units contained in the associated columns. The applications for which all names are resolved (all objects with those names are found in the Platform database and their IDs can be located through associations and assignments) are added to the existing CCAdv configuration and included in the rollup. The procedure also updates display names based on the content in the columns of the table. If the `AppDisplayName` column in the table is blank for an application, the existing display name for that application, present in the CCAdv configuration, is removed (replaced with the blank name).
- Associates contact groups, where specified, with applications and assigns these contact groups to the contact center, application group, reporting region, and operating unit specified in the row with the contact group.
- Associates the contact group with the specified contact group display name. If the `CgDisplayName` column is blank, the existing display name of the contact group (present in WA configuration) is replaced with the blank name.
- Establishes relationships between applications and agent groups contained in the `blkAllAgntGr` table.
- Establishes relationships between contact groups and agent groups contained in the `blkAllAgntGr` table. Each contact group displays in a row with the relevant agent group based on the specified agent group contact center. The contact group inherits the properties of the application contained in the same row of the table as the contact group.
- Records the outcome in the `blkAllLog` table, which you can examine after the procedure exits.

## Exporting CCAdv/WA Configuration

You can export the existing CCAdv/WA configuration into a set of temporary structures compatible with CCAdv/WA bulk configuration. You can then export the structures into delimited files, edit them by adapting to the bulk configuration format and use those for CCAdv/WA configuration in another environment. You can also use the exported structures to compare the actual CCAdv/WA configuration to your expected configuration.

Run the `blkCfgExp.sql` script in your Oracle or MS SQL Server installation to export the data.

The script creates and populates or updates the following tables:

- blkExpAllNames
- blkExpAllAgntGr

All entries for which there is a problem contain an explanation of the issue in the Message column of each table.

---

## Bulk Configuration of CCAdv in Independent Configuration Mode

This section describes the bulk configuration of CCAdv objects; the bulk configuration tool configures CCAdv outside of the Advisors Administration module.

You can use the tool to rapidly configure WA based on the lists of objects you define and export from other systems and load into temporary structures in the Advisors Platform database. The bulk configuration tool retrieves the data from the temporary structures, validates it, and transforms it into CCAdv rollup configuration. This tool is designed for use in independent configuration mode. For information about configuration modes, see “CCAdv/WA Modes” on [page 47](#).

### Database Structures, Scripts, and Procedures

An object creation script, `blk0bjectsCre.sql`, is supplied as a temporary addition to the installation package in the `sql\oracle\bulkconfig\independent\ccadv-bulkload` folder. You must execute `blk0bjectsCre.sql` as a script – not as a statement – if opened and executed from the SQL Developer SQL Worksheet.

You must apply the `blk0bjectsCre.sql` script to the Platform schema to create the following tables; the tables are required for CCAdv bulk configuration:

- blkAppNames
- RepRegionName
- blkAppAgntGr
- blkAgntGrNames
- blkAppLog

You must create all of the preceding tables, but the content is optional. Any or all tables can remain empty. Empty tables do not impact the configuration in any way.

Objects already present in CCAdv configuration, but absent from these tables, remain in the CCAdv configuration after you perform the bulk configuration procedure.

|                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stored Procedure for Bulk Configuration</b>                     | You implement the bulk configuration by running a stored procedure, <code>spBlkConfigCCAdvIndependent</code> , which is also created when you run the <code>blkObjectsCre.sql</code> script. You execute the procedure against the Platform schema after all base data is prepared in the tables created by running the <code>blkObjectsCre.sql</code> script.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Script to Remove Objects Used in Bulk Configuration Process</b> | <p>The <code>blkObjectsDrop.sql</code> script removes all objects used in the bulk configuration (such as the tables that the <code>blkObjectsCre.sql</code> script creates). You can execute this script whenever necessary. There is no negative impact because of the presence of these objects; they can be retained. The <code>blkObjectsDrop.sql</code> script does not remove any configuration.</p> <p>You must execute the <code>blkObjectsDrop.sql</code> script before you switch to another configuration mode and use bulk configuration tools for that mode.</p>                                                                                                                                                                                                                                                                                |
| <b>Stored Procedure for Removing Configuration</b>                 | You can quickly and completely remove all CCAdv applications, agent groups, and agent group contact centers configured in CCAdv inside or outside the bulk configuration tool. To remove CCAdv configuration, run the <code>spBlkRemoveConfigCCAdv</code> stored procedure, which is created when you run the <code>blkObjectsCre.sql</code> script. Run the <code>spBlkRemoveConfigCCAdv</code> stored procedure against the Platform schema.                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Important</b>                                                   | <p>The procedure will remove all data left from previous configurations that may have a negative impact on the new configurations. It can be very useful when the configuration mode must be changed.</p> <p>In order to be able to restore the configuration, you must have a reliable set of bulk configuration files or blk tables that you can use to re-load the configuration. Before you execute the procedure, make sure that such data exists.</p> <p>You also can execute the bulk configuration removal procedure if you are comfortable with the current configuration loss and want to re-configure the applications from the beginning.</p> <p>The configuration removal procedure does not remove the data from blk files. Those are always preserved unless the tables are dropped by running the <code>blkObjectsDrop.sql</code> script.</p> |

## Prerequisites and Preparations

- The application server and XML Generator service must be up and successfully running until the required data (see the following two bullets) displays on the pages of the Advisors Administration module. To ensure that the import runs successfully, check the XML Generator log for import-related errors.

- Log in to the Advisors application; Advisors automatically imports all relevant aggregated objects (regions, operating units, contact centers, and application groups) from the Genesys Configuration Server.
- All relevant applications and agent groups have been automatically imported by XML Generator, and are available for configuration.
- Prior to bulk configuration, ensure that all relevant application groups, reporting regions, geographic regions, operating units, and network contact centers are configured. You configure these manually using Advisors administration module.

---

**Notes:**

- No existing configuration is removed when using the CCAdv bulk configuration tool. If any objects are already configured, or any application-to-agent group relationships are added manually, they are not removed by the bulk configuration tool. The tool adds to the configuration or changes the mappings of the existing configured objects based on the data contained in the temporary structures.
- If an AGCC does not already exist, one is created by the bulk configuration procedure under every network call center (NCC) where each application mapped to it (that is, to the NCC) is also mapped to an agent group and that agent group is mapped to an AGCC.

---

Genesys recommends that all aggregated objects participating in CCAdv configuration are activated in Advisors administration module prior to performing bulk configuration. Optionally, you can complete this step after bulk configuration. In either case, it is required to make the objects visible on the dashboard view.

## Bulk Configuration of CCAdv in Independent Configuration Mode

The following procedure summarizes the steps to perform bulk configuration of CCAdv when you use the application in independent configuration mode. The information following this procedure provides additional information to assist you.

---

## Procedure: Bulk Configuration – CCAAdv Independent Configuration Mode

### Start of procedure

1. Start Advisors Application Server and XML Generator.
2. Watch the XML Generator and Geronimo logs.  
The logs must be free of any import-related errors.
3. Allow the Advisors application to run for approximately 10 minutes.
4. Open the Administration module in the browser.
5. When the aggregated objects are available, configure all those that you plan to use in CCAAdv rollups (see [“Prerequisites and Preparations”](#)).
6. Open each of the following pages and ensure that you can see objects among the available and/or configured object lists, as applicable:
  - a. Application Configuration page
  - b. Agent Group Configuration page
  - c. Contact Group Configuration page
7. Connect to the Oracle instance as platform user.
8. Execute the `blk0bjectsCre.sql` script.  
You must execute `blk0bjectsCre.sql` as a script – not as a statement – if opened and executed from the SQL Developer SQL Worksheet.
9. Populate the database tables with your contact group data.
  - For information about preparing your data, see [“Prerequisites and Preparations”](#) and [“Data Preparation for Application names, Application Display names, and Aggregated Object Names”](#).
  - For information about importing the data from spreadsheets to the database, see [“Loading Data from Spreadsheets into Temporary Database Structures”](#).

**10. Execute the `spblkConfigCCAdvIndependent` procedure:**

Oracle:

```
DECLARE
M VARCHAR2(200)
R NUMBER
BEGIN
"spblkConfigCCAdvIndependent"
(
M => M,
R => R
);
END
```

MS SQL Server:

```
USE <name of Advisors platform database>
GO
```

```
DECLARE
```

```
 @r int,
 @m varchar(255)
```

```
EXEC spblkConfigCCAdvIndependent
 @r = @r OUTPUT,
 @m = @m OUTPUT
```

```
SELECT @r as N'@r',
 @m as N'@m'
```

```
GO
```

**11. Verify the log stored in the `blkAppLog` table.**

For information about logs related to the bulk configuration, see [“Bulk Configuration Validation and Logs”](#).

**12. Correct the data, if necessary, and go back to [Step 10](#).**

If no correction is necessary, go to [Step 13](#).

**13. Examine all relevant configuration pages in the Advisors Administration module to verify the configuration.****14. Examine the CCAdv dashboard to verify the configuration.**

**15. Do one of the following:**

- a. If you are satisfied with the resulting configuration, and you do not plan to use the WA independent configuration tool, connect to the Oracle instance as platform user and execute the blkObjectsDrop.sql script to remove all temporary structures and bulk load procedures.
- b. If you are not satisfied with the resulting configuration, go to [Step 12](#). Alternatively, if you see unpredictable results, and you have a reliable set of bulk configuration data loaded into blk tables, you can remove the whole CCAAdv configuration by executing the CCAAdv configuration removal procedure. After that you can reload the configuration as described in [Step 10](#).

Oracle:

```
DECLARE
M VARCHAR2(200)
R NUMBER
BEGIN
"spblkRemoveConfigCCAAdv"
(
M => M,
R => R
);
END
```

Or, MSSQL Server:

```
USE <name of Advisors platform database>
GO
```

```
DECLARE@m varchar(255),
 @r int

EXEC spblkRemoveConfigCCAAdv
 @m = @m OUTPUT,
 @r = @r OUTPUT
```

```
SELECT @m as N'@m',
 @r as N'@r'
```

```
GO
```

**End of procedure**

## Data Preparation for Application names, Application Display names, and Aggregated Object Names

You can use spreadsheets or CSV files to collect the CCAdv configuration information into a simple file structure that can be loaded into a database table.

Alternatively, you can omit the file preparation and load the data directly into the database table from the sources available through your relational database management system (RDBMS).

If you use spreadsheets or CSV files to collect your CCAdv configuration data, use the following sections as guides.

### Object Names

Your spreadsheet or CSV file contains the list of all the application names that need to be configured, as well as the corresponding application display names, contact center names, application group names, reporting region, and operating unit names. Your file must contain six columns with headers (headers are mandatory), and provide the following information:

- Application Name
- Application Display Name
- Contact Center Name
- Application Group Name
- Reporting Region Name
- Operating Unit Name

Add relevant data to the spreadsheet or file under the corresponding column headers. You then import this data into the blkAppNames database table. To expedite the import of the data from the file into the database table, use the column names exactly as they are used in the blkAppNames database table.

- Guidelines** Use the following guidelines when you create the spreadsheets to import information about object names to be used for CCAdv bulk configuration:
- If a display name, reporting region, or operating unit is not defined, you must leave the related cell empty (that is, do not populate the cell with N/A or any other identifier). Where used, the reporting region or the operating unit must have a valid name – both cells cannot be empty. The whole content of the data row is rejected if any incomplete configuration is detected or there are names that cannot be resolved (objects with those names are not found among the imported objects and, therefore, their IDs cannot be located through associations and assignments).



- Each application name (that is, the application name shown on the Application rollup page in the Administration module) must match the name contained in the tmpImportCallType.PeripheralName, tmpImportInteractionQueue.PeripheralName, or tmpImportApp.PeripheralName column of the Platform database.
- Each application group name must match the name contained in the APPLICATION.NAME column of the Platform database.
- Each reporting region name must match the name contained in the REGION.NAME column of the Platform database, where TYPE='R'.
- Each operating unit name must match the name contained in the REGION.NAME column of the Platform database, where TYPE='O'.

## Applications and Agent Group Relationships

To configure application-to-agent group relationships, your spreadsheet or CSV file contains the list of application names, as well as the agent group names and AGCC names. If the related agent groups must also be assigned to agent group contact centers, the names of these contact centers are specified with the agent groups. If a specified AGCC does not exist, the bulk configuration tool creates it, but only if the related application is already mapped to a contact center (that is, it is listed in the blkAppNames structure). If no AGCC needs to be specified, leave the field empty. Your file must contain three columns:

- Application Name
- Agent Group Name
- Agent Group Contact Center Name

Add relevant data to the spreadsheet or file under the column headers. You then import this data into the blkAllAgntGr database table. To expedite the import of the data from the file into the database table, use the column names exactly as they are used in the blkAppAgntGr database table.

**Guidelines** Use the following guidelines when you create the spreadsheets to import configuration information about application and agent group relationships:

- Each agent group name must match the name contained in the tmpImportSkill.EnterpriseName column of the Platform database.

You can prepare agent group descriptive names in a separate blkAgntGrNames file, if required. This table is shared between CCAdv and WA bulk configuration tools. See an example in Table 15, “Example of content in an blkAgntGrNames file,” on [page 391](#).

## Loading Data from Spreadsheets into Temporary Database Structures

Import content from the spreadsheets or files into the relevant columns of the corresponding database tables using the Oracle SQL Developer or the MS SQL import option. Follow the procedure for each table.

---

### Procedure: Importing Content into Tables (Oracle)

#### Start of procedure

1. Open SQL Developer and register a connection to the Advisors Platform schema.
2. Navigate to the Advisors platform schema, then to each created table.
3. Right-click on a table and select the Import Data ... option from the menu.
4. Navigate to the relevant file and select it.
5. Follow the SqlDeveloper Import Data Wizard instructions; the wizard guides you through the import process.

#### End of procedure

Ensure that you verify the data for each step of the Data Import Wizard, in particular:

- Review the data on the Data Preview screen to ensure accuracy.
- Ensure you exclude any unrelated columns that might be present in the file. It is best if you remove unwanted columns from the file before you start the import, rather than excluding columns each time you run the import wizard.
- Ensure that you correctly map columns in the database table to columns in the file. Verify each and every column.
- Verify the parameters before import.

See the SQL Developer documentation if you have questions related to data import using SQL Developer.

---

## Procedure: Importing Content into Tables (MS SQL)

### Start of procedure

1. Open Microsoft SQL Server Management Studio and register a connection to Advisors Platform database
2. Navigate to the Advisors Platform database and launch the import tool for one of the created tables.
3. Following the import wizard instructions.
4. Import the data from each file that contains prepared configuration data.  
With MS SQL Server, data can be loaded in one import session if you use Microsoft Excel and the data is consolidated into one spreadsheet with tabs representing the content of each table.

---

**Note:** You must match each spreadsheet with a destination table. Ensure you choose the table that was the created for bulk configuration.

---

### End of procedure

Ensure that you verify the data for each step of the Data Import Wizard, in particular:

- Review the data on the Data Preview screen to ensure accuracy.
- Ensure you exclude any unrelated columns that might be present in the file. It is best if you remove unwanted columns from the file before you start the import, rather than excluding columns each time you run the import wizard.
- Ensure that you correctly map columns in the database table to columns in the file. Verify each and every column.

See the MS SQL Server documentation if you have questions related to data import using Microsoft SQL Server Management Studio.

---

**Note:** MSSQL Server Import is very sensitive to special characters which, if present in the files, can trigger import failure accompanied by a message that may seem completely unrelated and will not explain the actual reason. Make sure that the files are clean. Special characters are often invisible and to avoid import failure, you need to check the files for unnecessary empty trailing spaces, empty rows or formatting and remove them before you proceed with the import. While preparing the data, do not copy it from web pages or forms that may contain such characters.

---

## Bulk Configuration Validation and Logs

The bulk configuration procedure (spblkConfigCCAdvIndependent) validates each record in the database blk structures. The procedure does not add any configuration if any data contained in the corresponding tables fails to pass validation or cannot be found (or created) in the database. Instead, the procedure records a message in the blkAppLog table and proceeds to the next record. See [“Prerequisites and Preparations”](#) and [“Data Preparation for Application names, Application Display names, and Aggregated Object Names”](#) for information about correct data preparation.

Examine the log to see if you encountered errors when performing the bulk configuration. If there are errors reported in the log, correct the data in the spreadsheets or files, and reload the content to the related tables and columns. You can also correct the data directly in the tables.

Re-run the procedure to complete or correct the configuration using the updated data. Repeat the process as many times as necessary. The procedure does not reduce the existing configuration. The procedure applies all modifications and additions that occurred in the blk tables after your previous execution of the procedure. Any deletion of data, however, is ignored.

The resulting configuration can be verified from the Advisor Administration module and on the dashboard.

### Correct Configuration Validation in Advisors Administration Module

Execution of the spblkConfigCCAdvIndependent procedure results in the following configuration, which you can validate in the Advisors Administration module:

- Associates applications contained in the blkAppNames table with contact centers, application groups, reporting regions, and operating units contained in the associated columns. The applications for which all names are resolved (all objects with those names are found in the Platform database and their IDs can be located through associations and assignments) are added to the existing CCAdv configuration and included in the rollup. The procedure also updates display names based on the content in the columns of the table. If the AppDisplayName column in the table is blank for an application, the existing display name for that application, present in the CCAdv configuration, is removed (replaced with the blank name).
- Establishes relationships between applications and agent groups contained in the blkAppAgntGr table.
- Assigns descriptive names to agent groups if the blkAgntGrNames table is populated.

- Records the outcome in the blkAppLog table, which you can examine after the procedure exits.

## Exporting CCAdv Configuration

You can export the existing CCAdv configuration into a set of temporary structures compatible with CCAdv bulk configuration. You can then export the structures into delimited files, edit them by adapting to the bulk configuration format, and use those for CCAdv configuration in the current or another environment. You can also use the exported structures to compare the actual CCAdv configuration to your expected configuration.

Run the blkCfgExp.sql script in your Oracle or MS SQL Server installation to export the data.

The script creates and populates or updates the following tables:

- blkExpAppNames
- blkExpAppAgntGr
- blkExpAgntGrNames

All entries for which there is a problem contain an explanation of the issue in the Message column of each table.

---

## Bulk Configuration of Workforce Advisor in Independent Configuration Mode

This section describes the bulk configuration of WA contact groups; the bulk configuration tool configures WA rollups outside of the Advisors Administration module.

You can use the tool to rapidly configure WA based on the lists of objects you define and export from other systems and load into temporary structures in the Advisors Platform database. The bulk configuration tool retrieves the data from the temporary structures, validates it, and transforms it into WA rollup configuration. This tool is designed for use in independent configuration mode.

If the independent configuration mode is set, then:

- Agent group-to-application relationships created in CCAdv are not propagated to the configured contact groups mapped to these applications. Instead, the direct network contact center (NCC) contact group-to-agent group mappings are used.
- Applications mapped to contact groups inherit all aggregation properties from those contact groups that are mapped to them. All properties that applications acquire in CCAdv configuration are ignored.
- Agent groups mapped to agent group contact centers (AGCC) inherit all the properties from the contact groups that are mapped to those AGCC.

Each contact group can be mapped to only one contact center.

**For contact groups not mapped to AGCCs**

You can map contact groups, which are not mapped to AGCCs, to applications. In Release 8.1.5, you can map each such contact group (a contact group mapped to an application) directly to an agent group. In the independent configuration mode, mapping a contact group to an application does not trigger the automatic mapping of all the agent groups already assigned to that application.

**For contact groups mapped to AGCCs**

You can map contact groups, which are mapped to AGCCs, only to agent groups. Each contact group configured under an agent group contact center has a parent in the form of a contact group mapped to the related network contact center. A combination of participating aggregated objects is derived from the specified parent, and an agent group contact center is automatically created under the derived network contact center, if one does not already exist.

All contact group-related aggregated objects that are derived from the parent (AGCCs, application groups, regions, and operating units) are automatically assigned to the children contact groups. All agent groups associated with the contact group that is mapped to an AGCC are mapped to this same AGCC automatically. Initially, these agent groups are excluded from CCAAdv rollup by the bulk configuration tool, unless the agent group is already assigned to a contact center and included in CCAAdv.

## Database Structures, Scripts, and Procedures

An object creation script, `blkobjectsCre.sql`, is supplied as a temporary addition to the installation package. You must execute `blkobjectsCre.sql` as a script – not as a statement – if opened and executed from the SQL Developer SQL Worksheet.

You must apply the `blkobjectsCre.sql` object creation script to the Platform schema to create the following tables, which are required for the contact group bulk configuration:

- `blkCgNames`
- `blkAgCgNames`
- `blkCgApp`
- `blkCgAgntGr`
- `blkAgntGrNames`
- `blkCgLog`

You must create all of the preceding tables, but the content is optional. Any or all tables can remain empty. Empty tables do not impact the configuration in any way.

Objects already present in WA configuration, but absent from these tables, remain in the WA configuration after you perform the bulk configuration procedure.

|                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stored Procedure for Bulk Configuration</b>                     | You implement the bulk configuration by running a stored procedure, <code>spblkConfigWAINdependent</code> , which is also created when you run the <code>blkObjectsCre.sql</code> script. You execute the procedure against the Platform schema after all base data is prepared in the tables created by running the <code>blkObjectsCre.sql</code> script.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Script to Remove Objects Used in Bulk Configuration Process</b> | The <code>blkObjectsDrop.sql</code> script removes all objects used in the bulk configuration (such as the tables that the <code>blkObjectsCre.sql</code> script creates). You can execute this script whenever necessary. There is no negative impact because of the presence of these objects; they can be retained. The <code>blkObjectsDrop.sql</code> script does not remove any configuration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Stored Procedure for Removing Configuration</b>                 | You can quickly and completely remove all configured WA contact groups, their relationships to applications and agent groups, and agent group contact centers created inside or outside the bulk configuration tool. To remove the configuration, run the <code>spblkRemoveConfigWA</code> stored procedure, which is created when you run the <code>blkObjectsCre.sql</code> script. Run the <code>spblkRemoveConfigWA</code> stored procedure against the Platform schema.                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Important</b>                                                   | <p>The procedure will remove all data left from previous configurations that may have a negative impact on the new configurations. It can be very useful before the configuration mode must be changed.</p> <p>In order to be able to restore the configuration, you must have a reliable set of bulk configuration files or blk tables that you can use to re-load the configuration. Before you execute the configuration removal procedures, make sure that such data exists.</p> <p>You also can execute the bulk configuration removal procedures if you are comfortable with the current configuration loss and want to re-configure the applications from the beginning.</p> <p>The configuration removal procedure does not remove the data from blk files. Those are always preserved unless the tables are dropped by running the <code>blkObjectsDrop.sql</code> script.</p> |

## Prerequisites and Preparations

- The application server and XML Generator service must be up and successfully running until the required data (see the following three bullets) displays on the pages of the Advisors Administration module. To ensure that the import runs successfully, check the XML Generator log for import-related errors.
- Log in to the Advisors application; Advisors automatically imports all relevant aggregated objects (regions, operating units, contact centers, and application groups) from the Genesys Configuration Server.

- All relevant applications and agent groups have been automatically imported by XML Generator, and are available for configuration.
- All relevant contact groups have been automatically imported by the WA server from the WFM system(s) specified during Advisors installation, and are available for configuration.
- Prior to bulk configuration, ensure that all relevant application groups, reporting regions, geographic regions, operating units, and network contact centers are configured. You configure these manually using Advisors administration module.

---

**Notes:**

- No existing configuration is removed when using the WA bulk configuration tool. If any objects are already configured, or any applications or agent groups are added manually using the Administration module, they are not removed by the bulk configuration tool. The tool adds to the configuration – or changes the mappings of the existing configured objects – based on the data contained in the temporary structures.
- If an AGCC does not already exist, one is created by the bulk configuration procedure under every network call center where contact groups have children (in the form of contact groups mapped to agent groups).

---

Genesys recommends that all aggregated objects participating in WA configuration are activated in Advisors administration module prior to performing bulk configuration. Optionally, you can complete this step after bulk configuration. In either case, it is required to make the objects visible on the dashboard view.

## Bulk Configuration of Contact Groups in WA independent Configuration Mode

The following procedure summarizes the steps to perform contact group bulk configuration when you use WA in independent configuration mode. The information following this procedure provides additional information to assist you.



---

## Procedure: Contact Group Bulk Configuration – WA Independent Configuration Mode

### Start of procedure

1. Start Advisors Application Server and XML Generator.
2. Watch the XML Generator and Geronimo logs.  
The logs must be free of any import-related errors.
3. Allow the Advisors application to run for approximately 10 minutes.
4. Open the Administration module in the browser.
5. When the aggregated objects are available, configure all those that you plan to use in WA rollups (see [“Prerequisites and Preparations”](#)).
6. Open each of the following pages and ensure that you can see objects among the available and/or configured object lists, as applicable:
  - a. Application Configuration page
  - b. Agent Group Configuration page
  - c. Contact Group Configuration page
7. Connect to the Oracle instance as platform user.
8. Execute the `blk0bjectsCre.sql` script in the WA bulk configuration section.  
You must execute `blk0bjectsCre.sql` as a script – not as a statement – if opened and executed from the SQL Developer SQL Worksheet.
9. Populate the database tables with your contact group configuration data.
  - For information about preparing your contact group data, see [“Data Preparation for Contact Group Names, Contact Group Display Names and Aggregated Object Names”](#).
  - For information about importing the contact group data from spreadsheets to the database, see [“Loading Data from Spreadsheets into Temporary Database Structures”](#).

**10. Execute the `spblkConfigWAINdependent` procedure.**

Oracle:

```
DECLARE
M VARCHAR2(200)
R NUMBER
BEGIN
"spblkConfigWAINdependent"(
M => M,
R => R
)
END
```

MSSQL:

```
USE <name of Advisors database>
GO
DECLARE @return_value int,
@r int,
@m varchar(255)
EXEC spblkConfigWAINdependent
@r = @r OUTPUT,
@m = @m OUTPUT
SELECT @r as N'@r',
@m as N'@m'
GO
```

**11. Verify the log stored in the `blkCgLog` table.**

For information about logs related to the bulk configuration, see [“Bulk Configuration Validation and Logs”](#).

**12. Correct the data, if necessary, and go back to [Step 8](#).**

If no correction is necessary, go to [Step 13](#).

**13. Examine the Contact Group Configuration page in the Advisors Administration module to verify the configuration.****14. Examine the WA dashboard to verify the configuration.****15. Do one of the following:**

- a. If you are satisfied with the resulting configuration, connect to the Oracle instance as platform user and execute the `blkObjectsDrop.sql` script to remove all temporary structures and bulk load procedures.
- b. If you are not satisfied with the resulting configuration, go to [Step 12](#). Alternatively, if you see unpredictable results, and you have a reliable set of bulk configuration data loaded into blk tables, you can remove the whole WA configuration by executing the WA configuration

removal procedure. After that you can reload the configuration as described in [Step 10](#). You can remove the whole configuration by executing the `spblkRemoveConfigWA` procedure.

Oracle:

```
DECLARE
M VARCHAR2(200)
R NUMBER
BEGIN
"spblkRemoveConfigWA"
(
M => M,
R => R
);
END
```

MSSQL:

```
USE <name of Advisors platform database>
GO
```

```
DECLARE @m varchar(255),
 @r int

EXEC spblkRemoveConfigWA
 @m = @m OUTPUT,
 @r = @r OUTPUT

SELECT @m as N'@m',
 @r as N'@r'
```

```
GO
```

End of procedure

## Data Preparation for Contact Group Names, Contact Group Display Names and Aggregated Object Names

You can use spreadsheets or CSV files to collect contact group configuration information into a simple file structure that can be loaded into a database table.

Alternatively, you can omit the file preparation and load the data directly into the database table from the sources available through your relational database management system (RDBMS).

If you use spreadsheets or CSV files to collect your contact group data, use the following sections as guides.

## Contact Groups mapped to Objects other than AGCC

Your spreadsheet or CSV file contains the list of all contact group names that must be configured, together with the corresponding contact group display names, network contact center names, application group names, reporting region, and operating unit names. Your file must contain six columns with headers (headers are mandatory), and provide the following information:

- Contact Group Name
- Contact Group Display Name
- Contact Center Name
- Application Group Name
- Reporting Region Name
- Operating Unit Name

Add relevant data to the spreadsheet or file under the corresponding column headers. You then import this data into the `blkCgNames` database table. To expedite the import of the data from the file into the database table, use the column names exactly as they are used in the `blkCgNames` database table.

**Guidelines** Use the following guidelines when you create the spreadsheets to import configuration information about contact groups mapped to objects other than AGCC:

- If a display name, reporting region, or operating unit is not defined, you must leave the related cell empty (that is, do not populate the cell with N/A or any other identifier). Where used, the reporting region or the operating unit must have a valid name – both cells cannot be empty for any given contact group. The whole content of the data row is rejected if any incomplete configuration is detected or there are names that cannot be resolved.
- Each contact group name must match the name contained in the `CONTACT_GROUP.NAME` column of the Platform database. Do not put contact groups that need to be mapped to agent group contact centers in the spreadsheet (or table).
- Each contact center name must match the name contained in the `CALL_CENTER.NAME` column of the Platform database.
- Each application group name must match the name contained in the `APPLICATION.NAME` column of the Platform database.
- Each reporting region name must match the name contained in the `REGION.NAME` column of the Platform database, where `TYPE='R'`.
- Each operating unit name must match the name contained in the `REGION.NAME` column of the Platform database, where `TYPE='O'`.

## Contact Groups mapped to AGCC

The mapping of contact groups-mapped-to-AGCC to aggregated objects is derived from their parent contact groups, which are already mapped to the relevant network contact centers. Your spreadsheet or CSV file for this information contains the list of all contact group names that must be mapped to agent group contact centers, and further to agent groups. Your file must contain three columns:

- Contact Group Name
- Parent Contact Group Name
- Contact Group Display Name

The parent contact group name is the name of the contact group mapped to the associated network contact center.

Add relevant data to the spreadsheet or file under the column headers. You then import this data into the `blkAgCgNames` database table. To expedite the import of the data from the file into the database table, use the column names exactly as they are used in the `blkAgCgNames` database table.

If you supply data in a file related to contact groups mapped to AGCC, then the bulk configuration tool creates a WA configuration with participating agent group contact centers. If the `blkAgCgNames` database table remains empty, no agent group contact centers are added to WA configuration. To be included in WA configuration, the child contact group must be specified in a pair with a parent contact group that is already mapped to a network contact center and other aggregated objects. That is, the parent contact group exists among the assigned contact groups in the current WA configuration, or it exists in the `blkCgNames` database table.

- Guidelines** Use the following guidelines when you create the spreadsheets to import configuration information about contact groups mapped to AGCC:
- If a display name is not defined, you must leave the related cell empty (that is, do not populate the cell with N/A or any other identifier).
  - Each contact group name and parent contact group name must match the name contained in the `CONTACT_GROUP.NAME` column of the Platform DB.

## Contact Groups and Related Applications

The word “application”, as used with Advisors, refers to Advisors objects that originate from the following:

- Genesys ACD and virtual queues
- Genesys interaction queues
- CISCO call types
- CISCO services.

Relationships between contact groups and applications is a necessary part of WA configuration. The functionality of the bulk configuration tool assumes that only contact groups associated with anything other than agent group contact centers can be associated also with applications. Your spreadsheet or CSV file for this information contains two columns:

- Contact Group Name
- Application Name

Add relevant data to the spreadsheet or file under the corresponding column headers. You then import this data into the `blkCgApp` database table. To expedite the import of the data from the file into the database table, use the column names exactly as they are used in the `blkCgApp` database table.

**Guidelines** Use the following guidelines when you create the spreadsheets to import configuration information about contact groups and associated applications:

- Each contact group name must match the name contained in the `CONTACT_GROUP.NAME` column of the Platform DB. A contact group will be mapped to the specified application only if this contact group is already mapped to something other than an agent group contact center. That is, the contact group exists among assigned contact groups or is mentioned in the `blkAgCgNames` DB table.
- Each application name must match the name contained in the `tmpImportCallType.PeripheralName` or `tmpImportApp.PeripheralName` column of the Platform database.

## Contact Groups and Related Agent Groups

Starting in Release 8.1.5, you can associate contact groups mapped to network contact centers with agent groups.

Contact groups related to AGCC can be mapped only to agent groups that are mapped to AGCC and identified as agent groups to include in WA.

Your spreadsheet or CSV file for this information contains three columns:

- Contact Group Name
- Agent Group Name
- AGCC Name

Add relevant data to the spreadsheet or file under the corresponding column headers. You then import this data into the `blkCgAgntGr` database table. To expedite the import of the data from the file into the database table, use the column names exactly as they are used in the `blkCgAgntGr` database table.

**Guidelines**

- Each contact group name must match the name contained in the `CONTACT_GROUP.NAME` column of the Platform database.
- Each agent group name must match the name contained in the `tmpImportSkill.EnterpriseName` column of the Platform database.

- If necessary, agent group descriptive (display) names can be prepared in a separate file `blkAgntGrNames`. If the `blkAgntGrNames` table is populated, the bulk configuration tool applies the agent group descriptive names. The following table shows an example of a `blkAgntGrNames` file.

**Table 15: Example of content in an `blkAgntGrNames` file**

| AGNTGRNAME                                               | AGNTGRDISPLAYNAME         |
|----------------------------------------------------------|---------------------------|
| V_TH0_PK_TR_EntertainIP_Generalist_KristallRetention_100 | KristallRetention_100_cca |
| [Tenant1] V_IDR_PK_CF_Kundenbindung_120                  | Kundenbindung_120         |

## Loading Data from Spreadsheets into Temporary Database Structures

Import content from the spreadsheets or files into the relevant columns of the corresponding database tables using the Oracle SQL Developer import option (Import Data ...). Follow the procedure for each table.

---

### Procedure: Importing Content into Tables

#### Start of procedure

1. Open SQL Developer and register a connection to the Advisors Platform schema.
2. Navigate to the Advisors platform schema, then to each created table.
3. Right-click on a table and select the Import Data ... option from the menu.
4. Navigate to the relevant file and select it.
5. Follow the SqlDeveloper Import Data Wizard instructions; the wizard guides you through the import process.

#### End of procedure

Ensure that you verify the data for each step of the Data Import Wizard, in particular:

- Review the data on the Data Preview screen to ensure accuracy.
- Ensure that you correctly map columns in the database table to columns in the file. Verify each and every column.
- Verify the parameters before import.

See the SQL Developer documentation if you have questions related to the import of data.

## Bulk Configuration Validation and Logs

The contact group bulk configuration procedure (spblkInsertIntoCg) validates each record in the database `blk` structures. The procedure does not add a contact group or a relationship to the WA configuration if any data contained in the corresponding tables fails to pass validation or cannot be found (or created) in the database. Instead, the procedure records a message in the `blkCgLog` table and proceeds to the next record. See [“Prerequisites and Preparations”](#) and [“Data Preparation for Contact Group Names, Contact Group Display Names and Aggregated Object Names”](#) for information about correct data preparation.

Examine the log to see if you encountered errors when performing the bulk configuration. If there are errors reported in the log, correct the data in the spreadsheets or files, and reload the content to the related tables and columns. You can also correct the data directly in the tables. You can correct only some of the records leaving the rest intact. When you execute the bulk configuration procedure, the procedure applies changes to objects present in WA configuration and in the bulk configuration tables.

Re-run the procedure to complete or correct the configuration using the updated data. Repeat the process as many times as necessary. The procedure does not remove the mapping of objects already present in WA configuration, but not present in the `blkCgNames` table, or otherwise damage existing configuration. The procedure applies all modifications and additions that occurred in the `blk` tables after your previous execution of the procedure. Any deletion of data, however, is ignored.

The resulting configuration can be verified from the Advisor Administration module and on the dashboard.

### Correct Configuration Validation in Advisors Administration Module

Execution of the `spblkConfigWAINdependent` procedure results in the following configuration, which you can validate in the Advisors Administration module:

- Associates contact groups contained in the `blkCgNames` table with contact centers (excluding agent group contact centers), application groups, reporting regions, and operating units contained in the related columns. The contact groups for which all the names are resolved (all objects whose names are found in the Platform database) are added to the existing WA configuration and included in the rollup. The procedure also updates display names based on the content in the related column. For example, if the `CGDISPLAYNAME` column is blank, the existing display name of the contact group, present in the WA configuration, is replaced with the blank name.
- Associates contact groups contained in the `blkAgCgNames` table with parent contact groups (contact groups associated with network call centers).



- Creates agent group contact centers associated with the derived network contact centers, if the AGCC are not already present.
- Associates contact groups contained in the blkAgCgNames table with agent group contact centers, derived application groups, reporting regions, and operating units. The procedure also includes these contact groups in the rollup and assigns contact group display names. If the CGDISPLAYNAME column is blank, the existing display name of the contact group, present in the WA configuration, is replaced with the blank name.
- Establishes relationships between contact groups and agent groups contained in the blkCgAgntGr table.

The table can contain contact groups mapped to contact centers of any type. Each contact group mapped to an agent group contact center is mapped to this agent group contact center, to the contact group related to this agent group contact center, and is indirectly mapped to the parent contact group that is mapped to a network contact center. Each contact group mapped to something other than an agent group contact center is mapped to the specified agent groups directly.

- Assigns descriptive names to agent groups if the blkAgntGrNames table is populated.
- Records the outcome in the blkCgLog table, which you can examine after the procedure exits. I

### **Exporting WA Configuration**

You can export the existing WA configuration into a set of temporary structures compatible with WA bulk configuration. You can then export the structures into delimited files, edit them by adapting to the bulk configuration format and use those for WA configuration in the current or another environment. You can also use the exported structures to compare the actual WA configuration to your expected configuration.

Run the blkCfgExp.sql script in your Oracle or MS SQL Server installation to export the data.

The script creates and populates or updates the following tables:

- blkExpAgntGrNames
- blkExpCgNames
- blkExpAgccCgNames
- blkExpAgCgNames
- blkExpCgApp
- blkExpCgAgntGr

All entries for which there is a problem contain an explanation of the issue in the Message column of each table.



# 12

## Migration Utilities

This chapter describes two migration utilities that are important for migrations from:

- Advisors 3.3, 8.0, 8.1.0 to 8.1.1 and higher
- Advisors 8.1.1 to 8.1.2 and higher

To migrate metrics added in a release to the Configuration Server, run the Advisors Object Migration Wizard.

Release 8.1.3 also introduces additional privileges for role-based access control. When migrating to Release 8.1.3, the new privileges are not defined in any existing Advisors role in the Configuration Server settings. An administrative user must update existing roles or create new roles and add the privilege to allow the described access or activity.

This chapter contains the following sections:

- [Running the User Migration Utility, page 395](#)
- [Running the Advisors Object Migration Wizard, page 397](#)

---

## Running the User Migration Utility

Starting with Advisors release 8.1.1, user configuration functionality moved to the Genesys Configuration Manager.

A user migration utility is packaged with the 8.1.2 and later Advisors Platform distribution. This 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

- A supported version of Java is 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 file `user-migration-util-<version>.zip` from the folder `advisors-platform-distribution-<version>.zip/ip/supplement`.
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 file `migration.bat` 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

---

# Running the Advisors Object Migration Wizard

With the introduction of role-based access control beginning in release 8.1.2 (see the *Performance Management Advisors 8.1 Contact Center Advisor/Workforce Advisor Administrator User's Guide*), many configuration objects have been moved to the Genesys Configuration Manager. To automate the migration of these objects, an Advisors Object Migration Wizard has been created.

The Advisors Object Migration Wizard is packaged with the Advisors Platform distribution.

Migration of metrics is a required step, whereas the remaining sections are optional.

The migration tool can be re-run as many times as required by running the installer.

## Migration Paths

In Releases 8.1.2 to 8.1.4, two paths are provided by the installer for this object migration wizard:

- Migrating the Frontline Advisors metrics data
- Migrating the Contact Center Advisor/Workforce Advisor 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.

The CCAdv/WA migration path involves migrating the following:

- Metrics for both CCAdv/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

---

**Note:** Although this option is placed under CCAdv/WFA migration path, it migrates the module privileges for all the Advisors components.

---

Starting in Release 8.1.5, three migration paths are available in the object migration wizard:

- Migrating the Frontline Advisors metrics data
- Migrating the Contact Center Advisor/Workforce Advisor data
- Genesys Adapter Configuration migration

For information about the third option (Genesys Adapter Configuration migration), see [“Using the Object Migration Wizard to migrate AGA Configuration”](#).

---

## Procedure:

### Running the Advisors Object Migration Wizard

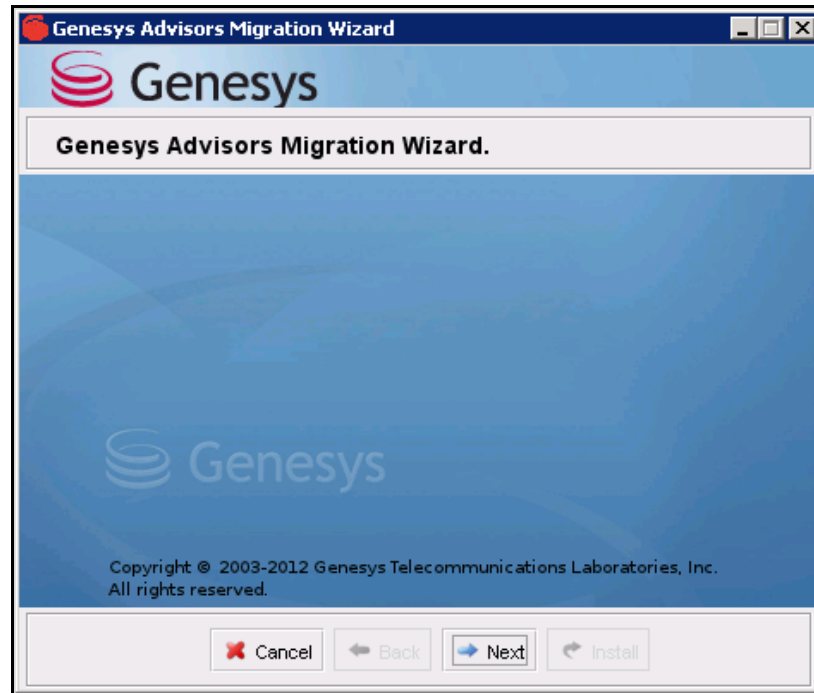
**Purpose:** To migrate configuration objects held in Advisors databases in releases prior to 8.1.2 to the Genesys Configuration Manager.

#### Prerequisites

- A supported version of Java is installed.
- If migrating from release 3.3, 8.0, or 8.1.0 to release 8.1.2 or higher, you must run the user migration utility first (see “Running the User Migration Utility” on [page 395](#)).
- The database migration scripts to migrate from a previous release to the latest release you want to install must be executed before running this wizard (beginning with Release 8.1.1 – the Object Migration Wizard does not work for releases prior to 8.1.1). 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 folder `advisors-platform-distribution-<version>.zip/ip/supplement`.
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`  
[Figure 188](#) displays.
4. Click Next.



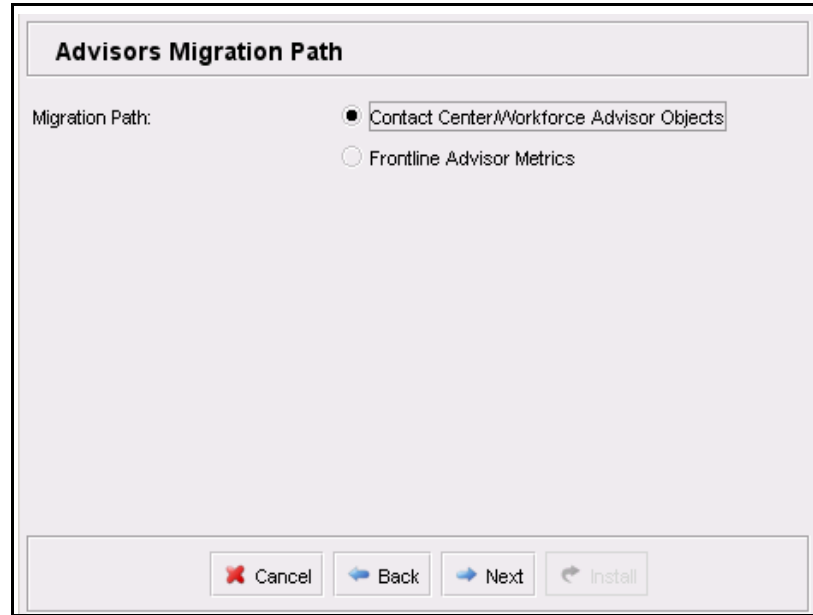
**Figure 188:Advisors Object Migration Wizard Screen**

5. Figure 189 on [page 400](#) displays.  
Select the migration path (either Contact Center Advisor/Workforce Advisor or Frontline Advisor Metrics) and click Next.

---

**Note:** To migrate the objects for both modules, you will need to run this wizard twice.

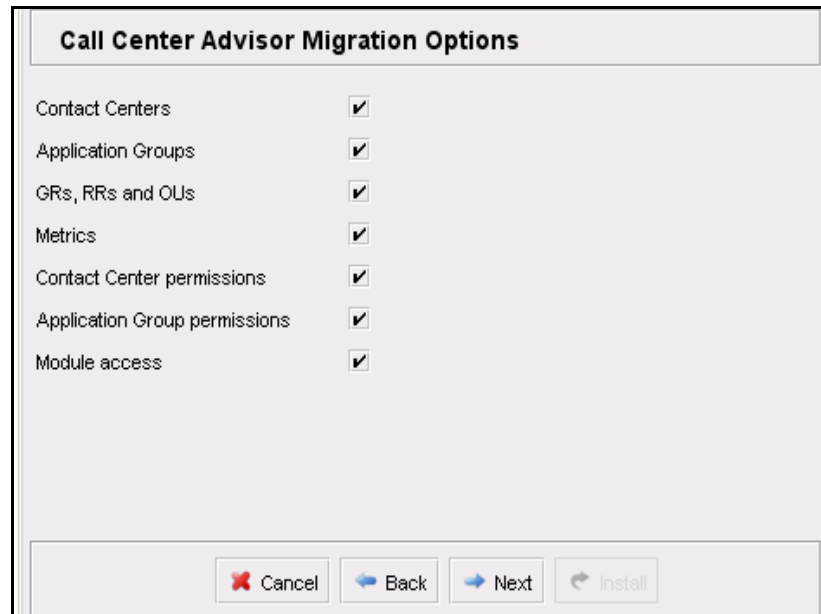
---



The dialog box is titled "Advisors Migration Path". It contains a "Migration Path:" label followed by two radio button options. The first option, "Contact Center/Workforce Advisor Objects", is selected with a filled circle. The second option, "Frontline Advisor Metrics", is unselected with an empty circle. At the bottom of the dialog, there are four buttons: "Cancel" (with a red X icon), "Back" (with a blue left arrow icon), "Next" (with a blue right arrow icon), and "Install" (with a circular refresh icon).

**Figure 189:Advisors Migration Path**

6. If you selected Contact Center Advisor/Workforce Advisor in [Step 5](#), [Figure 190](#) displays. Go to [Step 7](#) on [page 401](#).  
If you select Frontline Advisor Metrics in [Step 5](#), [Figure 191](#) displays. Go to [Step 9](#) on [page 401](#).

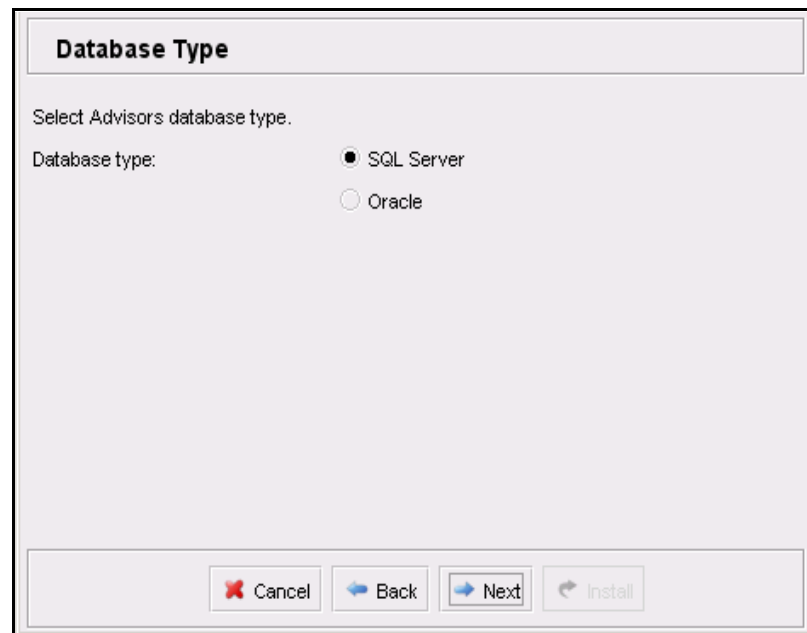


The dialog box is titled "Call Center Advisor Migration Options". It contains a list of seven items, each with a checkbox to its right. All checkboxes are checked. The items are: "Contact Centers", "Application Groups", "GRs, RRs and OUs", "Metrics", "Contact Center permissions", "Application Group permissions", and "Module access". At the bottom of the dialog, there are four buttons: "Cancel" (with a red X icon), "Back" (with a blue left arrow icon), "Next" (with a blue right arrow icon), and "Install" (with a circular refresh icon).

**Figure 190:Contact Center Advisor Migration Options**

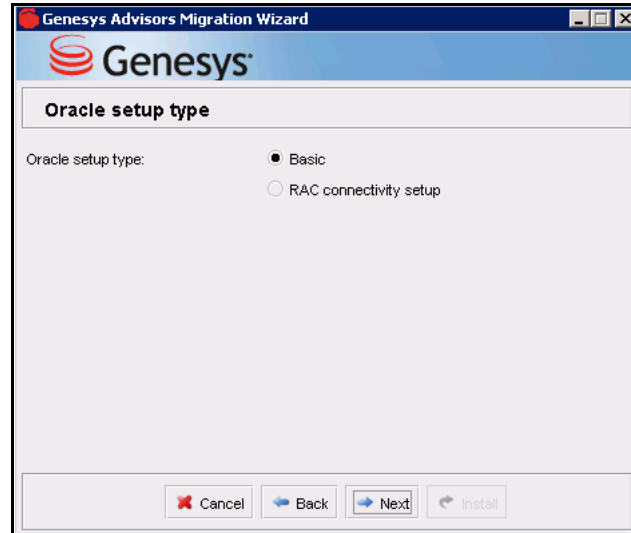


7. Select the items you want to migrate from the Advisors database.  
You can select more than one item at a time, but the following rules apply:
  - You must migrate contact center objects before you can migrate contact center permissions.
  - You must migrate application groups before you can migrate application group permissions.
8. Click Next.



**Figure 191: Database Type Screen**

9. Select database type.  
If you are using a SQL Server database, go to [Step 12](#).  
If you are using an Oracle database, go to the next Step.
10. Beginning in Release 8.1.5, the `Oracle setup` type screen displays if you select Oracle as your database type (see [Figure 192](#)). Select the Oracle setup option that describes your environment:
  - Select the `Basic` option if you are using a single-instance Oracle database.
  - Select the `RAC connectivity setup` option to connect to Oracle RAC.



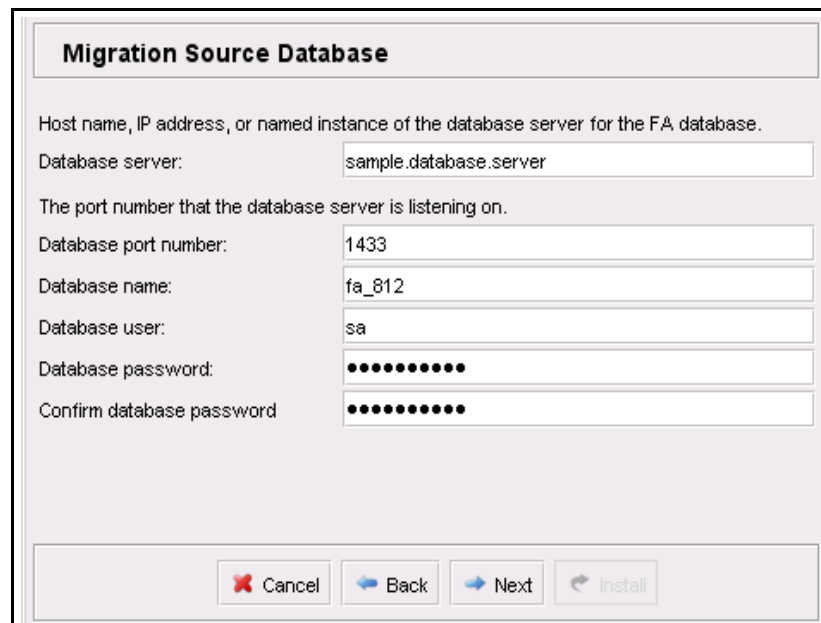
**Figure 192:Oracle database options**

11. Click Next. The Oracle JDBC Driver screen displays (Figure 193 on [page 402](#)).  
Select the Oracle JDBC driver and click Next.



**Figure 193:Oracle JDBC Driver Screen**

12. The Migration Source Database screen displays ([Figure 194](#)). Depending on the migration path you have chosen, this will prompt for details of either the FA metrics database (shown in [Figure 194](#)) or the Platform database.



**Migration Source Database**

Host name, IP address, or named instance of the database server for the FA database.

Database server:

The port number that the database server is listening on.

Database port number:

Database name:

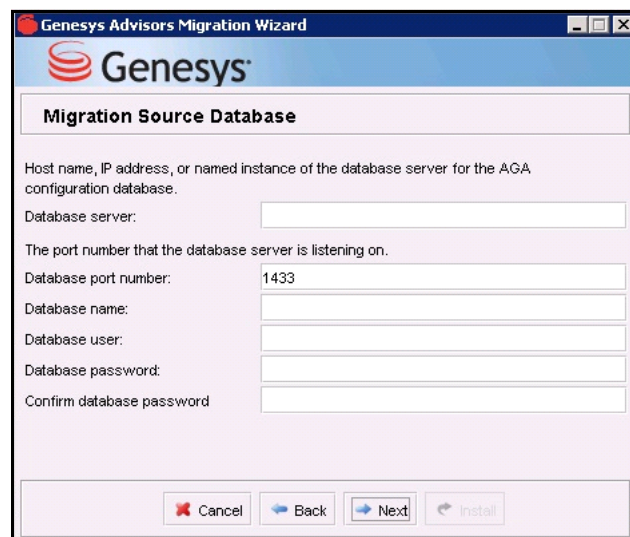
Database user:

Database password:

Confirm database password:

**Figure 194: Migration Source Database Screen**

The following Figure shows the Migration Source Database screen for Release 8.1.5.



**Genesys Advisors Migration Wizard**

**Genesys**

**Migration Source Database**

Host name, IP address, or named instance of the database server for the AGA configuration database.

Database server:

The port number that the database server is listening on.

Database port number:

Database name:

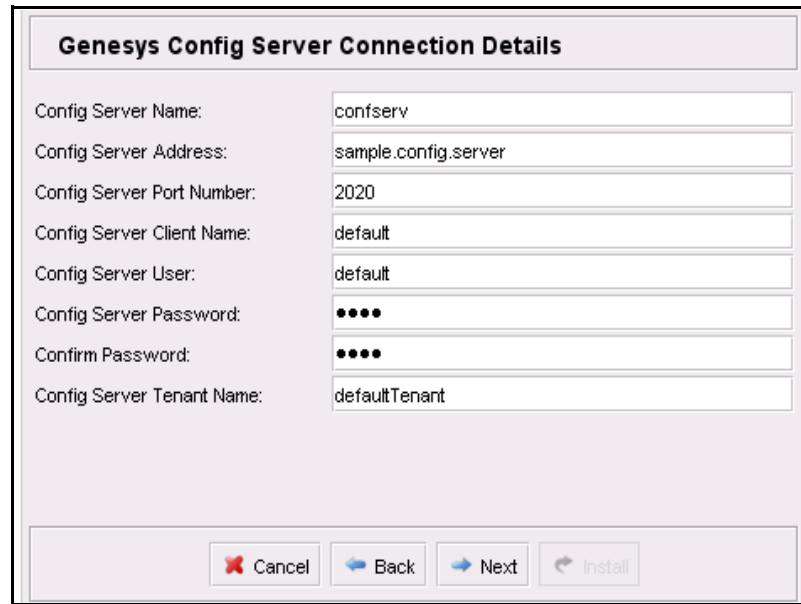
Database user:

Database password:

Confirm database password:

**Figure 195: Migration Source Database screen - Release 8.1.5**

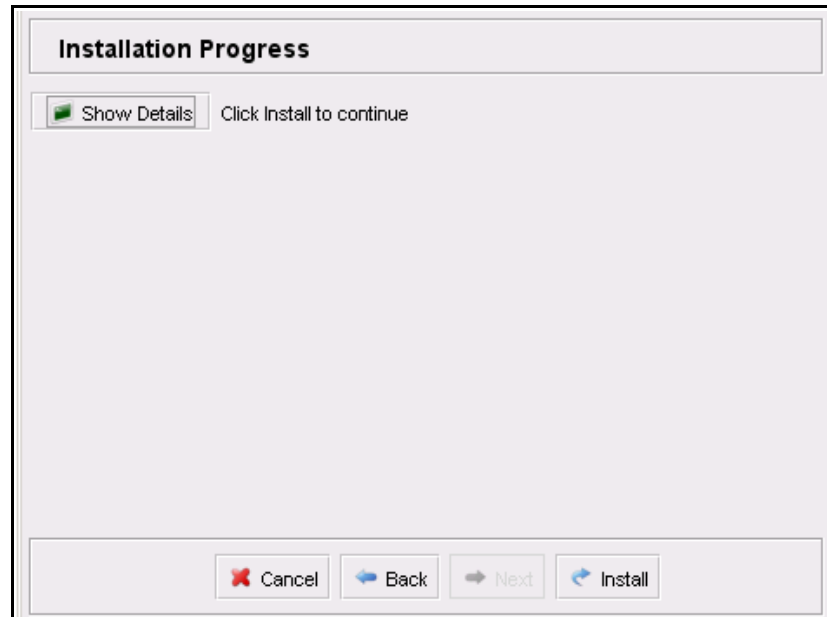
13. Provide connection details for the migration source database.  
 If Contact Center/Workforce Advisor Objects migration path was selected in [Step 5](#), provide Advisors Platform database details.  
 If the Frontline Advisor Metrics migration path was selected in [Step 5](#), provide Frontline Advisor Metrics database details.  
 Click Next. The Genesys Configuration Server Details screen displays ([Figure 196](#)).



The screenshot shows a window titled "Genesys Config Server Connection Details". It contains several input fields for configuration: "Config Server Name" (confserv), "Config Server Address" (sample.config.server), "Config Server Port Number" (2020), "Config Server Client Name" (default), "Config Server User" (default), "Config Server Password" (masked with dots), "Confirm Password" (masked with dots), and "Config Server Tenant Name" (defaultTenant). At the bottom, there are four buttons: "Cancel" (with a red X icon), "Back" (with a blue left arrow), "Next" (with a blue right arrow), and "Install" (with a blue circular arrow icon).

**Figure 196: Genesys Configuration Server Details Screen**

14. Complete the details of the Genesys Configuration Server to which selected objects are to be migrated. Click Next. The Installation Progress screen displays.



The screenshot shows a window titled "Installation Progress". It features a "Show Details" button with a green icon and the text "Click Install to continue". At the bottom, there are four buttons: "Cancel" (with a red X icon), "Back" (with a blue left arrow), "Next" (with a blue right arrow), and "Install" (with a blue circular arrow icon).

**Figure 197: Installation Progress Screen**

15. 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.

16. When the migration is complete, review the log for errors or warnings.

**End of procedure**

## Using the Object Migration Wizard to migrate AGA Configuration

To migrate data used by Data Manager in Release 8.1.5 and later, select the Genesys Adapter Configuration migration option on the Advisors Migration Path screen of the object migration wizard. The object migration wizard migrates the following:

- source metrics and templates
- configured objects
- filters

The Genesys Adapter Configuration migration option combines all three migrations into one process; there is no option to migrate configured objects, but not filters, for example. For additional information and recommendations about Data Manager for Release 8.1.5, see the following:

- For additional information and recommendations about migrating configured objects, see “Adding the CCAdv/WA Configured Objects to Configuration Server” on [page 408](#).
- For additional information and recommendations about migrating filters, see “Migrating Filters to Configuration Server” on [page 409](#).
- For additional information about Data Manager for Release 8.1.5, see “Data Manager” on [page 50](#).

### Migration Locations

The object migration wizard moves source metric definitions and statistics templates stored in the Advisors Genesys Adapter database to the corresponding Platform tables for Data Manager use.

The object migration wizard moves configured objects and filters from the Advisors Genesys Adapter database to Genesys Configuration Server for Data Manager use.

---

**Note:** The AGA configuration database (advisors\_genadptdb) 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.

---

### Supported Releases

The object migration wizard supports migration of the source metrics and statistics templates from 8.1.4 to 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.

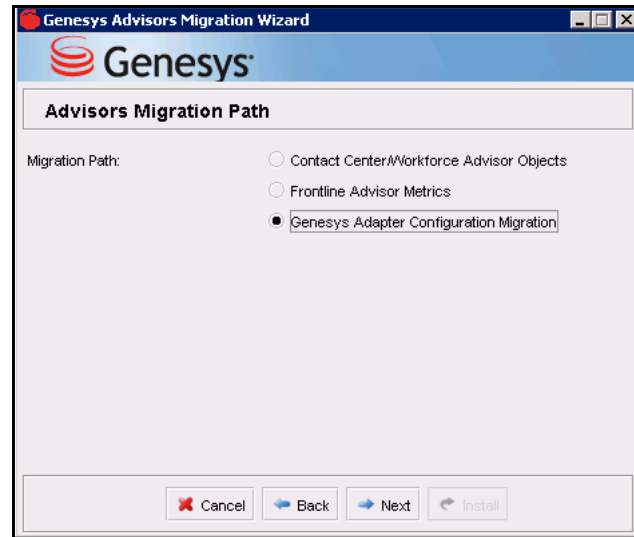
### AGA Configuration Migration Screens in the Wizard

The object migration wizard prompts you for the following information:

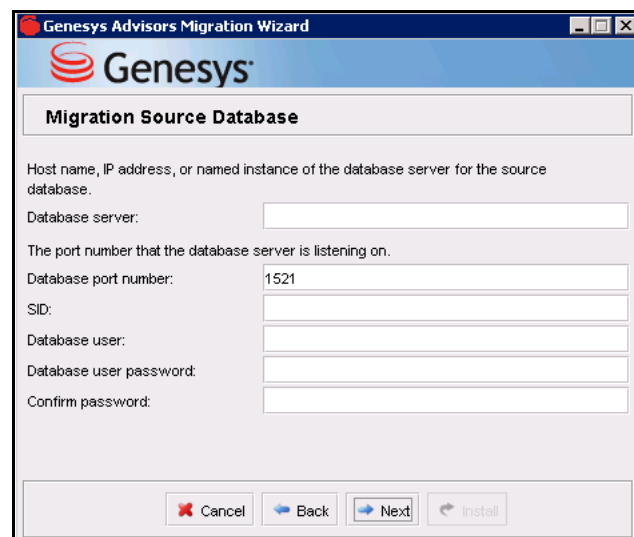
- the existing Advisors Genesys Adapter configuration database connection details
- the 8.1.5 platform database connection details

Ensure you have this information available before you run the wizard.

The following Figures show the screens on which you configure the Genesys Adapter Configuration migration path. [Figure 198](#), [Figure 199](#), and [Figure 200](#) show the screens associated with migrating the source metric definitions and statistics templates.



**Figure 198:**Specify the Genesys Adapter Configuration migration path

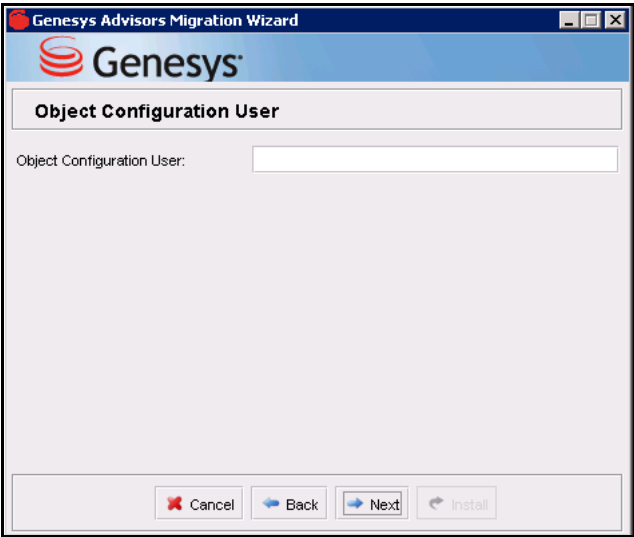


**Figure 199:**Specify the Genesys Adapter configuration database details on the Migration Source Database screen

**Figure 200: Specify the Platform database details on the Migration Destination Database screen**

**Figure 201: Specifying the Configuration Server connection details**

- 
- Notes:**
- The Configuration Server user you specify in the migration wizard should have 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, and Create and Change access permissions to create and update business attributes.
  - The Config Server Name is the name of the application (for example, confserver).
-



**Figure 202:Specifying the Object Configuration User account name**

**Data Migration to  
Platform Database  
Tables**

The migration tool moves existing data from the source Adapter database to the destination Platform database tables as shown in the following Table.

**Table 16: Data Migration to Platform Database Tables**

| Source                         | Destination                           |
|--------------------------------|---------------------------------------|
| AGA GC_METRIC_DEFINITIONS      | PLATFORM<br>GENESYS_SS_SOURCE_METRICS |
| AGA<br>GC_STATISTICS_TEMPLATES | PLATFORM<br>STATISTICS_TEMPLATES      |

**Migration for  
Multiple AGA  
Instances**

If you have multiple Adapter instances, you must run the migration tool once for each Genesys Adapter instance.

**Adding the CCAdv/WA Configured Objects to  
Configuration Server**

The object migration wizard adds the existing configured objects in the Platform database to the Configuration Server in the form of object permissions for the Object Configuration User (the Object Configuration User’s object permissions determine the objects that are monitored for CCAdv/WA).

The migration tool prompts for the Platform database and the Configuration Server connection details. The Configuration Server user you specify in the migration wizard should have Change and Change Permissions access permissions to update the security permissions of the monitored objects.



Using the data migration wizard for this purpose is optional. The alternative is to directly grant Read permission to the Object Configuration User for all monitored agent groups and queues for CCAdv/WA.

For more information about the Object Configuration User and permissions associated with this user in Configuration Manager, see “Data Manager” on [page 50](#).

## Migrating Filters to Configuration Server

The object migration wizard moves the Stat Server filters, maintained in the Adapter configuration database in Releases 8.1.3 and 8.1.4, to the Genesys Configuration Server. After migration, the filters become Advisors-specific custom business attribute values under the `Advisors Filters` business attribute for the default tenant. The migration wizard also retrieves the filter expression from the Stat Server application configuration. For more information, see “Data Manager” on [page 50](#).

The migration tool prompts for the Platform database and the Configuration Server connection details. The Configuration Server user you specify should have Create and Change access permissions to create and update business attributes.

Using the data migration wizard for this purpose is optional. The alternative is to manually create the `Advisors Filters` business attribute under the configured default tenant. Add the filters to be used with Advisors as business attribute values.



# 13

## Deployment Generics

This chapter describes some generic installation information applicable across multiple components. It contains the following sections:

- [Automated Installation Options, page 411](#)
- [Installing Services under Windows 2008 Server, page 414](#)
- [Adjusting the Log File Roll and Retention Settings, page 414](#)

---

### Automated Installation Options

In addition to deploying Advisors modules by entering all properties in the installer UI screens (*normal* mode), two automated installation modes are also available: *semi-silent* and *silent*.

- Semi-silent mode pre-populates all values in the installer UI. The user will be able to review these values and make corrections if necessary.
- Silent mode is similar to semi-silent mode, except that no UI is displayed. Installation will proceed without confirmation, and will exit automatically with log output being written to file.

---

**Warning!** Use semi-silent and silent modes with caution. Use the `ant.install.properties` files with identical types of installations. For example, the `ant.install.properties` file you used to install Platform with an Oracle database should not be used to install Platform with an MS SQL Server database.

---

### Specifying Input Properties

For both semi-silent and silent installation modes, all required properties for the installation options, including installation targets, passwords, and so on, must be present in a property file named `ant.install.properties`. This file must be located in the same directory from which the installer will be run.

An initial template can be generated by running the installer in normal mode, and then supplying values for the targets and other installation options. The installer will save these values (excluding passwords) in a file named `ant.userinstall.properties`. The input property file can then be obtained by copying this file to `ant.install.properties`, and then modifying the installation options as required for the specific configuration.

In order to reduce the risk of revealing sensitive information, password values are not written by the installer to the properties file. When the installer creates the `ant.userinstall.properties` file, password properties are created and commented out. For example:

```
#cp.database.password=
```

Once the `ant.userinstall.properties` file has been copied to `ant.install.properties`, you must locate the necessary password properties, uncomment them, and then add the actual password values. For example:

```
cp.database.password=supersecurepassword
```

## Performing a Semi-Silent Installation

Semi-silent installation is enabled by running the installation jar with the `ant.install.properties` file present in the installer directory.

---

**Note:** When the `ant.install.properties` file is re-used for a semi-silent installation, and a path to a folder needs to be changed using the `Select Folder` button, the selected path should be verified and adjusted manually if necessary.

---

## Performing a Silent Installation

The silent installation mode is enabled by adding the `swing-auto` parameter when running an installation jar on the command line. For example, to perform a silent installation of an Advisors module, open a command prompt, navigate to the directory containing the installer jar, then run the following command (using the proper version number for “<version>”):

```
java -jar <advisor-module>-installer-<version>.jar swing-auto
```

---

**Note:** Note that the `ant.install.properties` file must be present in the same directory.

The installer will only create the logging directory when run in manual or semi-silent mode. If the installer is run in silent mode, or if the logging directory has been deleted after installation, the module will create the directory at startup.

For silent installation all the password properties must be provided and the password properties lines must be uncommented.

---

The installer will then run, using the values in the `ant.install.properties` file, and upon exit will indicate success or failure with a message and error codes. A successful installation will look similar to the following:

```
$ java -jar <advisor-component>-installer-<version>.jar swing-auto
Loading self extractor...
Install Successful.
```

A failed installation will look like the following:

```
$ java -jar <advisor-component>-installer-<version>.jar swing-auto
Loading self extractor...
Install Failed.
```

After the installer has been run, these additional files will be present containing log and installer output information:

```
ant.install.log
installation-output.log
```

In the case of installation failure, the `installation-output.log` file can be consulted for further information. (Possible reasons for failure include a missing input properties file, incorrect property values—for example, database passwords—or any other error that would cause a failure during normal installation mode.)

It is strongly recommended that you examine all generated logs to make sure that all errors and warnings are duly noted.

## Advisor Component Names

Substitute the following for the `<advisor-component>` element above:

**Table 17: Automated Install Naming Conventions**

| Component Name                             | Installer.jar Name |
|--------------------------------------------|--------------------|
| Platform                                   | advisors-platform  |
| Contact Center Advisor & Workforce Advisor | ccadv-wa           |
| Frontline Advisor/Agent Advisor            | fa-server          |
| Genesys Adapter                            | aga                |
| Cisco Adapter                              | aca                |

---

## Installing Services under Windows 2008 Server

For installations on Windows 2008 Server, the Administrator installing the Advisors components and the Apache Web server should have permissions to install an NT service.

If for some reason granting this access is not possible, you can create shortcuts to the service installers that you may run as an Administrator.

To install the Platform Geronimo NT service, create a shortcut for the `InstallAdvisorsServer.bat` file.

To install the XMLGen NT service, create a shortcut for the `InstallXMLGen.bat` file.

To install Apache (including its NT service), create a short cut for the MSI installer.

Once you have created a shortcut, right click on the shortcut, and use the `Run as administrator` option to install the NT service for that component.

---

## Adjusting the Log File Roll and Retention Settings

To limit the disk space consumed by log information, some Advisor components manage both the size and the number of its log files. These components will roll each of its current log files to backup copies both at the beginning of each day, and after the size of the log file reaches a threshold.

---

**Note:** This applies to CCAdv/WA (XML Gen), FA/AA, Genesys Adapter and Cisco Adapter.

---

You may adjust this size threshold as well as the number of backup copies retained by editing the properties in the `log4j.properties` file.

---

### Procedure: Adjusting the log file roll & retention settings

#### Start of procedure

1. Navigate to your base Advisors directory, and then to the `conf` subdirectory.
2. Look for the following properties and for each log file adjust them appropriately:

- `MaxFileSize`—Sets the size threshold past which the appender will roll the current file. Specify an integer value, along with either KB or MB (for example, 10MB for ten megabytes).
- `MaxRollFileCount`—Sets the maximum number of backup copies retained.
- `ScavengeInterval`—If set to -1, `MaxRollFileCount` will be ignored, and all backup copies will be retained.

### End of procedure

---

**Notes:**

1. `MaxFileSize` does not set a hard limit on the maximum size for the associated log file, but rather represents a threshold past which the log file is subject to rolling. The actual size of a log file will depend upon system load and the volume of log entries.
2. If you choose to set `ScavengeInterval` to -1, you will need to manually clear the backup copies from the log directory on a periodic basis.

---





## Related Documentation Resources

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

### Performance Management Advisors

- *Performance Management Advisors 8.1 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 8.1 Contact Center Advisor Help* describes how to personalize your display of information for monitoring and root cause analysis.
- *Performance Management Advisors 8.1 Workforce Advisor Help* describes how to personalize your display of information for monitoring and root cause analysis.
- *Performance Management Advisors 8.1 Frontline Advisor Administrator User's Guide* describes how to perform administration functions for Frontline Advisor.
- *Performance Management Advisors 8.1 Frontline Advisor Manager Help* describes how to perform manager functions for Frontline Advisor.
- *Performance Management Advisors 8.1 Frontline Advisor Agent Advisor Help* describes how to perform agent functions for Frontline Advisor.
- *Performance Management Advisors 8.1 Alert Management Help* describes how to manage the actions taken to resolve alerts and use the database to learn and repeat successes.
- *Performance Management Advisors 8.1 Resource Management Help* describes how to maintain skill levels and agents.
- *Performance Management Advisors 8.1 Performance Monitor Help* summarizes how to personalize your display of information for monitoring.

- *Performance Management Advisors 8.1 Workforce What-If Tool Help* describes and gives examples of scenarios that illustrate how to adjust resource levels to achieve optimal outcomes.

## Genesys

- *Genesys Technical Publications Glossary*, which ships on the Genesys Documentation Library DVD, provides a comprehensive list of the Genesys and computer-telephony integration (CTI) terminology and acronyms used in this document.
- *Genesys Migration Guide*, which ships on the Genesys Documentation Library DVD, provides documented migration strategies for Genesys product releases. Contact Genesys Customer Care for more information.
- *Genesys Framework Stat Server Deployment Guide*, which ships on the Genesys Documentation Library DVD, and which provides information about installation, configuration, and start procedures relevant to Stat Server.
- *Genesys Framework Stat Server User's Guide*, which ships on the Genesys Documentation Library DVD, and which provides concepts, terminology, and procedures relevant to the Genesys Stat Server.
- Release Notes and Product Advisories for this product, which are available on the Genesys Customer Care website at <http://genesyslab.com/support>.

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

- [Genesys Supported Operating Environment Reference Guide](#)
- [Genesys Supported Media Interfaces Reference Manual](#)

Consult these additional resources as necessary:

- *Genesys Hardware Sizing Guide*, which provides information about Genesys hardware sizing guidelines for the Genesys 8.x 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 Gplus Adapters Interoperability.
- *Genesys Licensing Guide*, which introduces you to the concepts, terminology, and procedures that are relevant to the Genesys licensing system.

For additional system-wide planning tools and information, see the release-specific listings of [System-Level Documents](#) on the Genesys Documentation website ([docs.genesyslab.com](http://docs.genesyslab.com)).

Genesys product documentation is available on the:

- Genesys Customer Care website at <http://genesyslab.com/support>.
- Genesys Documentation site at <http://docs.genesyslab.com/>.

## Related Documentation Resources

- Genesys Documentation Library DVD and/or the Developer Documentation CD, which you can order by e-mail from Genesys Order Management at [orderman@genesyslab.com](mailto:orderman@genesyslab.com).

# 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:

80fr\_ref\_06-2008\_v8.0.001.00

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

## Screen Captures Used in This Document

Screen captures from the product graphical user interface (GUI), as used in this document, may sometimes contain minor spelling, capitalization, or grammatical errors. 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.

## Type Styles

[Table 18](#) describes and illustrates the type conventions that are used in this document.

**Table 18: Type Styles**

| Type Style                                                 | Used For                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Examples                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Italic                                                     | <ul style="list-style-type: none"> <li>Document titles</li> <li>Emphasis</li> <li>Definitions of (or first references to) unfamiliar terms</li> <li>Mathematical variables</li> </ul> <p>Also used to indicate placeholder text within code samples or commands, in the special case where angle brackets are a required part of the syntax (see the note about angle brackets on <a href="#">page 421</a>).</p>                                                                                                                                                                                                                               | <p>Please consult the <i>Genesys Migration Guide</i> for more information.</p> <p>Do <i>not</i> use this value for this option.</p> <p>A <i>customary and usual</i> practice is one that is widely accepted and used within a particular industry or profession.</p> <p>The formula, <math>x + 1 = 7</math> where <math>x</math> stands for . . .</p>                                                               |
| Monospace font<br>(Looks like teletype or typewriter text) | <p>All programming identifiers and GUI elements. This convention includes:</p> <ul style="list-style-type: none"> <li>The <i>names</i> 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.</li> <li>The values of options.</li> <li>Logical arguments and command syntax.</li> <li>Code samples.</li> </ul> <p>Also used for any text that users must manually enter during a configuration or installation procedure, or on a command line.</p> | <p>Select the Show variables on screen check box.</p> <p>In the Operand text box, enter your formula.</p> <p>Click OK to exit the Properties dialog box.</p> <p>T-Server distributes the error messages in EventError events.</p> <p>If you select true for the inbound-bsns-calls option, all established inbound calls on a local agent are considered business calls.</p> <p>Enter exit on the command line.</p> |
| Square brackets ([ ])                                      | A particular parameter or value that is optional within a logical argument, a command, or some programming syntax. That is, the presence of the parameter or value is not required to resolve the argument, command, or block of code. The user decides whether to include this optional information.                                                                                                                                                                                                                                                                                                                                          | <code>smcp_server -host [/flags]</code>                                                                                                                                                                                                                                                                                                                                                                             |
| Angle brackets (< >)                                       | <p>A placeholder for a value that the user must specify. This might be a DN or a port number specific to your enterprise.</p> <p><b>Note:</b> In some cases, angle brackets are required characters in code syntax (for example, in XML schemas). In these cases, italic text is used for placeholder values.</p>                                                                                                                                                                                                                                                                                                                              | <code>smcp_server -host &lt;confighost&gt;</code>                                                                                                                                                                                                                                                                                                                                                                   |





# Index

## Symbols

|                      |     |
|----------------------|-----|
| [] (square brackets) | 421 |
| < > (angle brackets) | 421 |

## A

|                             |          |
|-----------------------------|----------|
| Adapters                    | 248, 332 |
| alert messages              | 312      |
| angle brackets              | 421      |
| Apache                      | 26       |
| Apache Server               | 26       |
| Aspect eWFM                 | 260, 293 |
| recommended version         | 290      |
| audience, for document      | 16       |
| automated installation      | 411      |
| Avaya Communication Manager | 154      |

## B

|                      |     |
|----------------------|-----|
| Base web             | 119 |
| brackets             |     |
| angle                | 421 |
| square               | 421 |
| browser co-residency | 44  |

## C

|                                        |     |
|----------------------------------------|-----|
| Cache service                          | 120 |
| Cisco data source configuration        | 232 |
| Cisco data source server configuration | 234 |
| Cisco ICM                              |     |
| recommended version                    | 45  |
| Cisco ICM database                     | 286 |
| Cluster Manager                        | 120 |
| commenting on this document            | 16  |
| Configuration Server                   |     |
| recommended version                    | 45  |
| conventions                            |     |

|                         |     |
|-------------------------|-----|
| in document             | 420 |
| type styles             | 421 |
| creating linked servers | 286 |

## D

|                         |        |
|-------------------------|--------|
| Data Manager            | 50, 60 |
| deploying Cisco Adapter | 229    |
| Distribution Artifacts  | 30     |
| document                |        |
| audience                | 16     |
| conventions             | 420    |
| errors, commenting on   | 16     |
| version number          | 420    |

## E

|                 |    |
|-----------------|----|
| email templates | 44 |
|-----------------|----|

## F

|                                          |     |
|------------------------------------------|-----|
| Flash                                    | 25  |
| font styles                              |     |
| italic                                   | 421 |
| monospace                                | 421 |
| Frontline Advisor database configuration | 238 |

## G

|                     |     |
|---------------------|-----|
| Genesys WFM         |     |
| recommended version | 290 |
| Geronimo            | 119 |

## H

|          |    |
|----------|----|
| HDS/AWDB | 61 |
|----------|----|

**I**

IEX TotalView  
     recommended version . . . . . 290  
 installation errors . . . . . 412  
 installation prerequisites  
     prerequisites, installation . . . . . 248, 331  
 installation troubleshooting . . . . . 328  
 intended audience . . . . . 16  
 Interaction Server . . . . . 156  
 italics . . . . . 421

**J**

Java Development Kit installation . . . . . 285  
 JDBC drivers . . . . . 27  
 JDK . . . . . 25  
 JDK installation . . . . . 25  
 JVM path options . . . . . 155

**K**

Key Performance Indicators . . . . . 15

**L**

linked servers . . . . . 286  
 Load balancing . . . . . 51, 60

**M**

Mail-Delivery service . . . . . 120  
 manual installation . . . . . 157  
 MCR extension package . . . . . 155  
 metric graphing database . . . . . 265, 268, 276, 281  
 Metrics  
     Filtered . . . . . 350  
 Migration wizard . . . . . 30, 397  
 Migrations folder . . . . . 332  
 monospace font . . . . . 421  
 multiple Adapter core services on a server . . . . . 222

**N**

Navigation service . . . . . 119

**O**

old-stats-remove-interval . . . . . 200  
 option query-agent-work-mode . . . . . 154  
 option rebind-delay . . . . . 155  
 Oracle 11g . . . . . 26

**P**

Preferences service . . . . . 120  
 prerequisites . . . . . 248

**R**

reconnection . . . . . 288  
 reconnection attempts . . . . . 288

**S**

Security Realm . . . . . 120  
 semi-silent installation . . . . . 411, 412  
 silent installation . . . . . 411, 412  
 SQL Server . . . . . 26  
 square brackets . . . . . 421  
 Stat Server . . . . . 154  
 Stat Server old-stats-remove-interval . . . . . 200  
 Statistics Server  
     recommended version . . . . . 154  
 Supplemental folder . . . . . 332

**T**

The data source . . . . . 120  
 troubleshooting . . . . . 412  
 type styles  
     conventions . . . . . 421  
     italic . . . . . 421  
     monospace . . . . . 421  
 typographical styles . . . . . 420, 421

**U**

User Authentication . . . . . 118

**V**

version numbering, document . . . . . 420  
 virtual agent groups . . . . . 156

**W**

Workforce Advisor e-mail notifications . . . . . 292  
 workforce management data . . . . . 291

**X**

XML Generator installation . . . . . 286