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Interaction Concentrator Deployment Guide

Planning Your Deployment

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This chapter lists the prerequisites for Interaction Concentrator deployment. It also provides other primary information that you need in order to plan an Interaction Concentrator (ICON) installation, including information about compatibility with other Genesys components.

Compatibility

Compatibility

This section lists the various Genesys components with which Interaction Concentrator release 8.1 is compatible. For information about supported operating systems and relational database management systems (RDBMSs), see the [Genesys Supported Operating Environment Reference Guide](#). Note that Oracle versions 8.1 and earlier are not supported.

The table below lists the Genesys product components with which Interaction Concentrator operates. Refer to [Interaction Concentrator 8.1 Release Note](#) for any updates to the release requirements for the various components.

Area of Functionality	Component/Product
Configuration Layer	Configuration Server release 7.2 or higher <ul style="list-style-type: none">DB Server release 7.2 or higher Note: Configuration Server 7.2 does not support all ICON functionality. In particular, the configuration synchronization feature requires Configuration Server release 7.5 or higher; do not attempt to use this feature with Configuration Server release 7.2.
Management Layer	Message Server release 7.1 or higher <ul style="list-style-type: none">Local Control Agent release 7.1 or higher
T-Server	T-Server release 7.2 or higher Note: The feature to determine which party released the call requires T-Server release 8.0 or higher, and is supported for the Alcatel A4400/OXE switch and Avaya switches (requires Avaya Communication Manager 8.0.101.05 or higher).
eServices (formerly Multimedia or Multi-Channel Routing (MCR))	eServices Interaction Server release 7.5 or higher Note: To configure the total number of keep-in-memory interactions that can reside concurrently in an interaction queue or interaction workbin requires Interaction Server release 7.6.1 or higher.

Area of Functionality	Component/Product
Outbound Contact	Outbound Contact release 7.2 or higher Note: If you use OCS 7.2 as the data source, attached data is not automatically linked to the call record. You must specially configure attached data to be linked.
Universal Routing	Universal Routing Server release 7.2 or higher Note: For virtual queue reporting, the minimum required version of Universal Routing Server is release 7.2.001.11.

Prerequisites

Prerequisites

Interaction Concentrator has important specific requirements noted in the following subsections. Before you install Interaction Concentrator, review the requirements and recommendations in these subsections.

[+] Hosting

Genesys recommends that you or your IT specialist assign host computers to Genesys software before you start a Genesys installation. Keep in mind the following restrictions:

- Do not install all Genesys server applications on the same host computer.
- When installing multiple server applications on the same host computer, prevent all of them, except Configuration Server, from using swap space.

See the “Network Locations for Framework Components” chapter of the [Framework Deployment Guide](#) and the “Architecture” chapter of the [Framework Management Layer User’s Guide](#) for information about the optimal locations for:

- Configuration Layer components
- Management Layer components
- T-Server

For Interaction Concentrator and its DB Server, observe the following recommendations:

- Install DB Server on the same computer as the Interaction Database (IDB).
- For better data reliability install ICON as close to T-Server as possible. Ideally, ICON should be on same physical host as the T-Server or Interaction Server for which it gathers data. This prevents network disruptions within the LAN from making an impact on data quality. If you are running a high availability environment, the second instance of ICON should be on a different host but in same subnet as the T-Server or Interaction Server.

Time Synchronization Among Hosts

In an environment with either a single ICON instance or multiple ICON instances operating with multiple T-Servers, synchronize the system time on the T-Server host computers to one second or better.

[+] Genesys Framework

Deploy the Genesys Framework components *before* you deploy Interaction Concentrator.

Configuration Layer

At the very least, you must set up the Configuration Layer of Genesys Framework. You cannot configure Interaction Concentrator components without the Configuration Layer. This layer contains DB Server, Configuration Server, Configuration Database, Configuration Manager, and, optionally, Deployment Wizards.

Management Layer

If you intend to monitor or control Interaction Concentrator and its DB Server through the Management Layer, you must also configure and install Management Layer components—in particular, LCA, Message Server, Solution Control Server (SCS), and SCI.

To monitor the status of Interaction Concentrator components through the Management Layer, you must load an LCA instance on every host that is running ICON and DB Server instances. Without LCA, the Management Layer cannot monitor the status of these components. If you do not use the Management Layer, you do not need LCA.

Important

For information about, and deployment instructions for, these Framework components, see the [Framework Deployment Guide](#) and the [Framework Management Layer User's Guide](#).

[+] Telephony Objects

Create configuration objects for every PBX about which you want Interaction Concentrator to store data.

Use Configuration Manager to configure telephony objects, including a Switching Office object and Switch object for the PBX, and one DN (Directory Number) object for each user's telephone number.

- For configuration settings that are specific to Interaction Concentrator, see [Switch Configuration Options](#) and [DN Configuration Options](#).

[+] T-Server

If you intend to collect computer-telephony integration (CTI)-related (call) reporting data, configure and install a T-Server application for your particular PBX, if it is not yet deployed. Make sure that the Switch object that this T-Server will serve is specified in the T-Server Application Properties dialog box.

In a multi-site environment, deploy one T-Server application for each PBX.

All T-Servers and, if applicable, Interaction Servers of type T-Server from which an ICON instance should collect data must be listed among the ICON Application object's connections.

Important

For information about, and deployment instructions for, telephony objects and T-Server, see the Framework T-Server Deployment Guide for your particular T-Server.

[+] Outbound Contact

If you intend to collect data about outbound campaigns, deploy components of Genesys Outbound Contact, release 7.2 or higher. If you have an earlier release of Outbound Contact, upgrade to release 7.2 before you deploy Interaction Concentrator.

To provide outbound information to ICON, at least one OCS application must exist and be properly configured. All OCS instances from which an ICON instance should collect data must be listed among the ICON Application object's connections.

For deployment instructions for Outbound Contact components, see the [Outbound Contact Deployment Guide](#). For Outbound Contact migration instructions, see the [Genesys Migration Guide](#). For recommendations on how to enable outbound reporting in Interaction Concentrator, refer to the "Integrating with Outbound Contact" chapter in the [Interaction Concentrator 8.1 User's Guide](#).

[+] Universal Routing

If you intend to collect data about virtual queues, deploy components of Universal Routing, release 7.2 or higher, that support virtual queue functionality. If you have an earlier release of Universal Routing, upgrade to a release that supports virtual queue functionality.

Interaction Concentrator requires Universal Routing Server (URS) release 7.2.001.11 higher for virtual queue reporting.

In order to provide virtual queue information to Interaction Concentrator, at least one URS application must exist. Interaction Concentrator functionality related to writing extended routing results from virtual queues into IDB requires Universal Routing Server (URS) release 7.6 or higher. To enable extraction of this extended routing information, you must also set the values of the **report_reasons** and **report_targets** configuration options in URS to true.

For deployment instructions for Universal Routing components, see the [Universal Routing 8.1](#)

Deployment Guide. For Universal Routing migration instructions, see the [Genesys Migration Guide](#). For recommendations on how to enable virtual queue reporting in Interaction Concentrator, refer to the chapter about monitoring virtual queues in the [Interaction Concentrator 8.1 User's Guide](#).

Interaction Concentrator functionality related to storing virtual queue history in IDB requires URS release 8.1 or higher.

[+] Multimedia

If you intend to collect interaction, agent state, and agent login session data for eServices (e-mail and chat) and 3rd Party Media interactions, configure and install an Interaction Server application for your multimedia switch, if it is not yet deployed. Make sure the Switch object this Interaction Server will serve is specified in the Interaction Server Application Properties dialog box.

In a multi-site environment, deploy one Interaction Server application for each multimedia switch.

The Interaction Server from which an ICON instance should collect data must be listed among the connections of the ICON Application object. However, ICON cannot connect directly to applications of type Interaction Server. If necessary, you must configure a dummy Interaction Server Application of type T-Server, designate the multimedia switch that Interaction Server uses as a switch for the dummy application, and connect the ICON Application to the T-Server-type Interaction Server. For more information, see [Storing Multimedia Data](#). The functionality introduced in ICON release 7.6.1 to support a large number of concurrently active multimedia interactions requires Interaction Server release 7.6.1 or higher.

For information about—and deployment instructions for—Interaction Server, see the [eServices Deployment Guide](#). For recommendations on how to enable multimedia reporting in Interaction Concentrator, refer to the chapter about integrating with Genesys eServices and 3rd Party Media in the [Interaction Concentrator 8.1 User's Guide](#).

[+] Interaction Database

Interaction Concentrator uses IDB to store reporting data. At least one IDB instance is required, which can be running on any Genesys-supported RDBMS except Sybase and Informix. Oracle versions 8.1 and earlier are also not supported. For a list of Genesys-supported RDBMSs, see the [Genesys Supported Operating Environment Reference Guide](#). For the changes in RDBMS support introduced with Interaction Concentrator 8.1, see the [Interaction Concentrator 8.1 Release Note](#).

When planning an installation, observe the following recommendations for IDB:

- Review the information about the IDB structure in the chapter about IDB schema in the [Interaction Concentrator 8.1 User's Guide](#).
- Estimate IDB size, using the [Interaction Concentrator 8.1 Database Size Estimator](#). For more information, see [Database Sizing](#).

[+] Security Features

Interaction Concentrator supports the following security features:

- Encrypted RDBMSs
- Hiding TEvent attached data from logs.

Support for Secure Connections

- Starting with release 8.1.1, Interaction Concentrator supports Transport Layer Security (TLS) and TLS-FIPS connections.
- Starting with release 8.1.2, Interaction Concentrator Supports client-side port definition, to provide secured connections to T-Server, SIP Server, Configuration Server, and Message Server.

On Windows platforms, support for TLS is integrated into the operating system, and there are no additional requirements to enable Interaction Concentrator to support it. On UNIX-based platforms, you must install the Genesys Security Pack on the Interaction Concentrator host.

For details on all of the supported security features, see the [Genesys 8.1 Security Deployment Guide](#).

General Considerations

General Considerations

Interaction Concentrator is flexible enough to fit any contact center. When planning a deployment, evaluate your environment and your reporting needs. Review the main deployment scenarios in [Deployment Scenarios](#), and answer the following questions:

- How many ICON servers do you need, and what data should each ICON instance handle? From what sources will the data come to a given ICON instance?
- How many Interaction Databases do you need, and what data will each IDB instance store? Which ICON instances will store the data into a particular IDB instance? In the case of multiple IDB instances, will you need to deploy a centralized IDB, and, if so, from which subset of IDBs will data be merged into the centralized IDB? How often should the merge procedure be run?
- How many DB Server applications do you need, if you deploy multiple IDB instances? Will any of these DB Server instances handle database requests for servers other than ICON?
- How many Database Access Point (DAP) applications do you need? What data will each particular ICON instance store through each DAP?

The answers to these questions will help you determine the Interaction Concentrator deployment topology and the main configuration settings for all components.

Database Sizing

Database Sizing

The size of your IDB depends on your deployment scenario, including such factors as typical call flows, attached data storage, values configured for storing outbound data in custom or secure fields, and the amount of time that records will be retained in the database.

Genesys provides an interactive tool to help you estimate the required size of your IDB. This tool, the [Interaction Concentrator 8.1 Database Size Estimator](#), is a Microsoft Excel spreadsheet.

For more information about database sizing and deployment guidelines, see the Interaction Concentrator section in the [Genesys Hardware Sizing Guide](#). The Genesys Info Mart section of the Genesys Hardware Sizing Guide can also provide helpful sizing and performance information for Interaction Concentrator.