Genesys Info Mart Deployment Guide

Preparing the ICON Application

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This page provides detailed instructions for preparing the ICON applications that capture and store information from the upstream data sources in your deployment.

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Preparing ICON

Your Genesys Info Mart deployment requires at least one ICON application and one IDB. However, depending on your chosen topology, you may have additional ICON applications or additional IDBs for separate storage of Configuration details, Voice details, Multimedia details, and Outbound Contact details. For more information about the various data-source topologies that Genesys Info Mart supports, see Interaction Concentrator Topologies.

In the interface you use to configure your Genesys applications, you must configure each ICON Application object and related objects in the deployment, in accordance with the Genesys Info Mart deployment requirements that are described in this section.

The type of data that Genesys Info Mart will extract from a particular ICON and IDB depends on your topology and reporting requirements. The required configuration settings, therefore, also depend on your topology and reporting requirements.

In some cases, you must configure settings on other configuration objects (DN, Field, Switch, Script), as well as on the ICON Application object. For links to more information about ICON-related settings on other configuration objects, see Configuring Supporting Objects.

Important

- The valid values that are listed for ICON application options on this page do not necessarily represent the entire set of values that are available in ICON; instead, these are the values that make sense in a reporting environment that is based on Genesys Info Mart.

- The values that Genesys Info Mart requires for certain ICON options ("mandatory options") are not the default values.

- Changes to the values of certain ICON options — including mandatory options — require a restart of ICON. When you restart an existing ICON application in a non-HA deployment, active calls are lost.

- All the IDBs from which Genesys Info Mart extracts data must have been populated only by ICONs that conform to Genesys Info Mart requirements. If you are adding Genesys Info Mart to an existing ICON deployment and you upgrade ICON or change ICON settings to meet Genesys Info Mart requirements, you must create new IDBs as part of the upgrade and start populating them only after all of the mandatory settings have been updated. Otherwise, Genesys Info Mart will not be able to process data from IDB. Any data that was collected in IDB before the upgrade or change in the ICON settings will not be processed by Genesys Info Mart.

Recommendations for ICON Deployment and Upgrade

- If you are deploying Interaction Concentrator at the same time as Genesys Info Mart, follow the installation and configuration instructions in the *Interaction Concentrator Deployment Guide* for your

release, while observing the Genesys Info Mart deployment requirements that are documented on this page.

- You can deploy Genesys Info Mart in an environment in which Interaction Concentrator 8.x has been deployed already, provided that ICON was configured in accordance with Genesys Info Mart requirements when Interaction Concentrator was originally deployed. If there is a large amount of data in IDB by the time Genesys Info Mart is added to the deployment, be aware that this approach might result in significant data latency while the Genesys Info Mart ETL jobs process the backlog.

Configuring the ICON Application

Procedure: Configuring ICON

Purpose: To enable ICON to capture Configuration details, Voice details, Multimedia details, or Outbound Contact details for Genesys Info Mart.

Steps

1. Create and configure an Interaction Concentrator Application object, as described in the *Interaction Concentrator Deployment Guide* for your release.
   Ensure that the **State Enabled** check box on the **General** tab is selected.

2. Review the options from the **[callconcentrator]** section, and modify settings as required for Genesys Info Mart. Important **[callconcentrator]** ICON Configuration Options describes the required ICON options, as well as other ICON options and recommended settings that are important for Genesys Info Mart. At a minimum, you must set the following option values for all types of ICON details:

   - **use-dss-monitor** = 1 (or true)
   - **partition-type** = 2
   - **role** (the value depends on the type of ICON details that you require that ICON application to store)

     There are additional minimum requirements for Voice details and Multimedia details ICONs. See the options identified as mandatory (with a single asterisk) in the table below.

3. Configure a connection to every data source that will supply data for Genesys Info Mart. Ensure that all connections between ICON and its data sources use ADDP.

Next Steps

- (Optional) Controlling IDB storage
- (Optional, for Voice or Multimedia details) Customizing Attached Data Storage
- (Optional, for Voice or Multimedia details) Configuring UserEvent Data Storage

- Preparing IDBs

Important [callconcentrator] ICON Configuration Options

The following table describes required or recommended settings for options that you set on the ICON Application object, in the **[callconcentrator]** section.

For more information about all of the ICON configuration options, see the *Interaction Concentrator Options Reference.*

In the context of this section, the term *interaction* is used generically to refer to voice calls and multimedia interactions.

ICON Application Options — [callconcentrator] Section, by Area of Functionality

Area of Functionality	Option Name	Recommended Value	Applies to ICONs For		
Voice Details	Multimedia Details	Outbound Contact Details			
Legend: * Mandatory option — Genesys Info Mart will not function if the option value is not set as specified. ** Recommended option — Data quality might be compromised if you do not use the recommended value. For more information about data-quality considerations, see the *Genesys Info Mart User's Guide*. Click the option name to see a brief description of the option.					
ICON role	role*	• `cfg` — For Configuration details • `gcc`,`gud`, `gls` — For Voice or Multimedia details • `gos` — For Outbound Contact details	✓	✓	✓
	ClusterRole**	`I-Proxy, T-Controller` (default)	✓	✓	✓
Configuration information	cfg-annex	1 (meaning true)	✓	✓	✓
	cfg-auto-	1 (meaning	✓	✓	✓

Area of Functionality	Option Name	Recommended Value	Applies to ICONs For		
	resync**	true)			
Session monitoring	dss-no-data-tout**	60 (seconds)	✓	✓	✓
	use-dss-monitor*	1 (or true)	✓	✓	✓
Interaction processing	calls-in-the-past*	1 (or true)		✓	
	om-force-adata*	1 (or true)		✓	
IDB	partition-type*	2 **Note:** For Genesys Info Mart purposes, this option effectively applies only to processing of multimedia interactions. However, Genesys Info Mart requires that you set the value of this option to 2 for all types of ICON details.	✓	✓	✓
Agent state and login session	gls-active-reason-codes*	1 (or true)	✓	✓	
	gls-enforce-reason-code	No recommended value, but the setting might affect reporting results.	✓	✓	
	gls-acw-first	No recommended value, but the setting might affect reporting results: • 0 (or false) (default) — ICON associates after call work (ACW) metrics with the voice interaction that	✓		

Area of Functionality	Option Name	Recommended Value	Applies to ICONs For		
		immediately precedes the completion of the ACW (the last voice interaction). • 1 (or true) — ICON associates ACW metrics with the voice interaction that immediately precedes the start of the ACW (the first voice interaction). Subsequent voice interactions are considered to be related to ACW processing and should not interrupt measurement of ACW-related metrics.			
	route-res-vqid-hist-enabled*	1 (or true)	✓	✓	
Virtual queue	vq-write-mode*	• 0 — For Voice details • 1 — For Multimedia details	✓	✓	

Area of Functionality	Option Name	Recommended Value	Applies to ICONs For		
		If your deployment uses the same ICON to monitor both voice and multimedia interaction activity (a supported topology starting with release 8.5.007), set vq-write-mode=1.			
	extended-route-result**	1 (or true) — ICON stores extended routing results. (Required if detailed dispositions on routing from virtual queues is required for reporting.)	✓	✓	
	adata-userdata-history**	none	✓	✓	
	adata-extensions-history**	none	✓		
	adata-reasons-history**	none	✓		
	cseq-adjustment*	2	✓	✓	
Attached data	max-userdata-length	• For ICON releases 8.1.512.08 through 8.1.514.05: 255 • For ICON release 8.1.514.06 and later: No recommended value if you are using Genesys Info Mart release 8.5.007 or later;	✓	✓	

Area of Functionality	Option Name	Recommended Value	Applies to ICONs For		
		otherwise, 255			
Scenario recognition	dest-busy-processing**	1 (or true)	✓	✓	
	ssc-processing**	1 (default, meaning true)	✓		
	store-releasing-party	No recommended value	✓		
3rd Party Media	mcr-om-processing	1 (default, meaning true) — This is the recommended setting because it enables recording of 3rd Party Media agent states and interaction data in IDB.		✓	
Outbound Contact metrics	gos-write-duplicate-metrics**	1 (meaning true)			✓

Controlling IDB Storage

By default, ICON stores full details about voice and multimedia interactions, as well as associated agent-related data. To customize IDB as a source of data for Genesys Info Mart, you can enable certain filtering through ICON configuration options. If you do not store in IDB the details that Genesys Info Mart does not extract, you can minimize the required storage space for IDB and improve ETL data extraction performance.

For a list of the IDB tables from which Genesys Info Mart extracts data, see IDB Tables Accessed by Genesys Info Mart.

The following procedure describes how you can set up the ICON application to exclude storage of details that Genesys Info Mart does not use.

Procedure: Controlling IDB storage

Purpose: To exclude the data that is not required for Genesys Info Mart from being stored in IDB.

This procedure is optional.

Prerequisites

- Configuring the ICON application

Steps

1. Review the options from the **[filter-data]** section, described in step 5, for configuring ICON storage.

2. Open the ICON Application object.

3. Create a new section, named **[filter-data],** if it does not already exist on the **Options** tab.

4. Open the **[filter-data]** section.

5. Configure any or all of the following ICON filtering options, to control data storage. To turn a filter on, so that certain details are excluded from storage in IDB, set the value of the option to 1 (meaning true).

   > ### Important
   > The list below includes only those **[filter-data]** options that you can set to safely exclude data from IDB. To avoid compromising Genesys Info Mart data quality, do not set any other filtering options to 1 (meaning true). By default, ICON does not exclude any data from storage (all of the **[filter-data]** option values are set to 0). For more information, see filter-data Section in the *Interaction Concentrator Deployment Guide.*

   - **acd-party-metrics   [+] Tell me more**

     When the filter is set, ICON does not store party metrics for distribution devices — such as ACD queues, routing points, virtual routing points, and external routing points — in the G_PARTY_STAT table in IDB.

     Genesys Info Mart does not extract data from the G_PARTY_STAT table.

     > ### Tip
     > The **acd-party-metrics** option applies to SIP and voice interactions only.

   - **call-history   [+] Tell me more**

When the filter is set, ICON does not store information about the call history in the G_CALL_HISTORY table in IDB.

- **gls-ivr [+] Tell me more**

  When the filter is set, ICON verifies whether the DN at which an agent logs in is an IVR device. If it is, ICON does not store information about this agent's activity in the following IDB tables:

  - G_LOGIN_SESSION
  - GX_SESSION_ENDPOINT
  - G_AGENT_STATE_HISTORY
  - G_AGENT_STATE_RC
  - G_DND_HISTORY
  - GS_AGENT_STAT
  - GS_AGENT_STAT_WM

  Furthermore, for parties that are associated with an IVR device, ICON does not record the agent's ID in the G_PARTY table.

  > **Tip**
  >
  > See the description of the **ivr** option for more information about how to configure a DN as an IVR resource. For more information about how ICON identifies an IVR, see the *Interaction Concentrator Deployment Guide* for your release.

- **gls-metrics [+] Tell me more**

  When the filter is set, ICON does not store information about agent states in the following IDB tables:
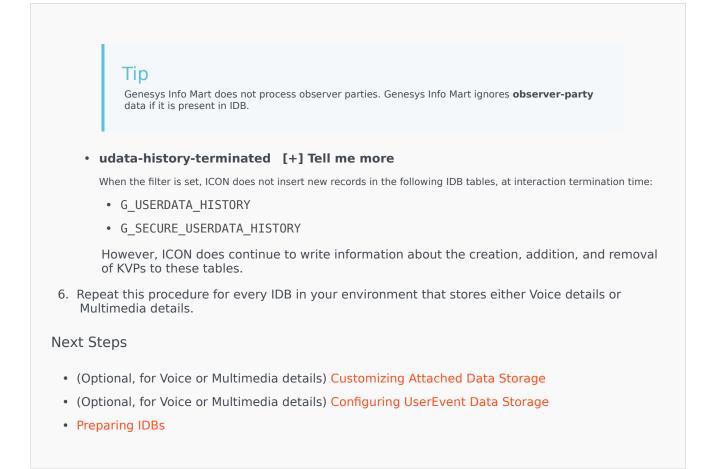
  - GS_AGENT_STAT
  - GS_AGENT_STAT_WM

- **ir-history [+] Tell me more**

  When the filter is set, ICON does not store information about the interaction record history in the G_IR_HISTORY table in IDB.

- **observer-party [+] Tell me more**

  When the filter is set, ICON does not store data about a party that has the role of Observer in an interaction. ICON collects data about every other party that is involved with the interaction and stores this information in the following IDB tables:

  - G_PARTY
  - G_PARTY_HISTORY
  - G_PARTY_STAT

> **Tip**
> Genesys Info Mart does not process observer parties. Genesys Info Mart ignores **observer-party** data if it is present in IDB.

- **udata-history-terminated   [+] Tell me more**

    When the filter is set, ICON does not insert new records in the following IDB tables, at interaction termination time:

    - G_USERDATA_HISTORY

    - G_SECURE_USERDATA_HISTORY

    However, ICON does continue to write information about the creation, addition, and removal of KVPs to these tables.

6. Repeat this procedure for every IDB in your environment that stores either Voice details or Multimedia details.

Next Steps

- (Optional, for Voice or Multimedia details) Customizing Attached Data Storage

- (Optional, for Voice or Multimedia details) Configuring UserEvent Data Storage

- Preparing IDBs

Customizing Attached Data Storage

When applications attach call-based KVPs to interactions, ICON records them in the appropriate IDB table. When you deploy the ICON application, you configure certain ICON options and you also create an XML-based specification file, to indicate which KVPs ICON should store and in which IDB tables and columns they should be stored.

Genesys Info Mart ships an attached data specification file (ccon_adata_spec_GIM_example.xml), which specifies the call-based KVPs that are related to Genesys Info Mart functionality. You modify the file to specify additional custom KVPs that you want ICON to store. You can use the User Data Assistant, **User_Data_Assistant.xlsm,** to help prepare the customized attached data specification.

When you install Genesys Info Mart, the **ccon_adata_spec_GIM_example.xml** and **User_Data_Assistant.xlsm** files are copied to the **sql_scripts** folder in the installation directory. They overwrite any files that have the same name.

The **ccon_adata_spec_GIM_example.xml** and the **User_Data_Assistant.xlsm** files are also available in the **sql_scripts** folder on the Genesys Info Mart CD.

Use the general procedure below, Customizing your ICON attached data specification file, to customize the attached data specification for your deployment.

> **Important**
>
> There is a separate mechanism for configuring ICON to store UserEvent-based KVPs. For more information, see Configuring UserEvent Data Storage.

Procedure: Customizing your ICON attached data specification file

Purpose: To customize your ICON attached data specification file to indicate the KVPs that you want ICON to store and in which IDB tables and columns they should be stored.

For descriptions of commonly used attached data KVPs that Genesys Info Mart recognizes, see Common Attached Data KVPs.

Prerequisites

- The **ccon_adata_spec_GIM_example.xml** file or the **User_Data_Assistant.xlsm** file is available. To obtain the files, do one of the following:

  - Install Genesys Info Mart, and locate the required file(s) in the **sql_scripts** folder in the installation directory.

  - Locate the required file(s) in the **sql_scripts** folder on the Genesys Info Mart CD.

- If you plan to use the User Data Assistant, you have Microsoft Excel 2007 or later, with macros enabled.

Steps

1. Modify the ICON attached-data specification file to include the predefined and custom KVPs that are required for your deployment. Do one of the following:

   - Use the User Data Assistant to automatically generate the customized attached-data specification file. For more information, see the instructions in the tool.

   - Prepare the attached-data specification file manually:

     1. Edit the **ccon_adata_spec_GIM_example.xml** file to include KVP names for the additional, custom attached data elements that you want the ETL jobs to extract.

     2. Comment out the attached data elements that you do not want the ETL jobs to extract.

2. Copy the modified file to your ICON installation directory on the ICON host that stores attached

data (that is, where the ICON role contains gud).

3. If you did not name the file **ccon_adata_spec.xml,** update the **adata-spec-name** option in the ICON Application object to point to this file.

4. If you use Interaction Concentrator release 8.1.4 or earlier, you must restart the ICON application so that the configuration changes take effect. Starting with Interaction Concentrator release 8.1.5, a restart is no longer required for the updates to the attached data specification file to take effect.

5. Repeat these steps for each ICON application from which Genesys Info Mart will extract Voice or Multimedia details (that is, where the ICON role contains gud).

Next Steps

- (Optional, for Voice or Multimedia details) Configuring UserEvent Data Storage

- To continue preparing Interaction Concentrator, see Preparing IDBs to work with Genesys Info Mart.

- To continue preparing Genesys Info Mart to store user data, see Preparing Custom User-Data Storage. For more information, see also Enabling Reporting on User Data.

Configuring UserEvent Data Storage

When applications use EventUserEvent or EventCustomReporting to attach KVPs (referred to as *UserEvent-based KVPs*) to interactions, ICON configuration determines whether ICON records the KVPs in IDB tables that Genesys Info Mart processes. To enable historical reporting on features such as Callback and Focus Time, or on custom UserEvent-based KVPs, you must configure ICON to store the required KVPs in the G_CUSTOM_DATA_S table, as described in Important custom-states ICON Configuration Options and Configuration Considerations.

For custom UserEvent-based KVPs, you must also prepare custom user-data storage in the Info Mart database, as described in Preparing Custom User-Data Storage.

For information about the UserEvent-based KVPs that are used for reporting, see Using UserEvent-Based KVP Data.

Important [custom-states] ICON Configuration Options

The following table describes recommended settings for options that you set on the ICON Application object, in the **[custom-states]** section.

For more information about all of the ICON configuration options, see Configuration Options in the *Interaction Concentrator Deployment Guide.*

ICON Application Options — [custom-states] Section, by Area of Functionality

Area of Functionality	Option Name	Recommended Value	Applies to ICONs For		
Voice Details	Multimedia Details	Outbound Contact Details			
Click the option name to see a brief description of the option.					
UserEvent-based user data	store-event-data	• all — ICON stores the values of all keys. This is the recommended setting in deployments where Genesys Callback, Focus Time, or Genesys Predictive Routing (GPR) data is extracted for reporting. • conf — ICON stores only the values of the keys that are configured in the **EventData** option.	✓	✓	
	EventData	No recommended setting. Enter a comma-separated list of the data types and key names in the format Type,KeyName.	✓	✓	

Configuration Considerations

To simplify configuration in deployments where Callback, Focus Time, or GPR data is extracted for reporting, Genesys recommends setting the **[custom-states].store-event-data** configuration option to `all`, to ensure that ICON stores all the UserEvent-based KVPs that Genesys Info Mart requires. However, be aware that setting `store-event-data=all` has performance and security implications:

- Performance — Processing and storing a large number of UserEvent-based KVPs increases database resource requirements and can impact performance.

- Security — Sensitive data (for example, credit card information) might be sent in UserEvents that are not used for reporting. Unlike the situation for call-based attached data, where the G_SECURE_USERDATA_HISTORY table is available to provide secure IDB storage, there is no secure IDB table parallel to G_CUSTOM_DATA_S that provides separate, secure storage for sensitive data.

Genesys recommends that you review your overall deployment to ensure that applications or strategies do not expose you to unnecessary performance or security risks by attaching large quantities of UserEvent-based KVPs and sensitive data that are not used for reporting. If your deployment does not make extensive use of UserEvents for reporting, Genesys recommends that you filter the bulk of UserEvent-based KVPs from storage in IDB. To do so, set `[custom-states].store-event-data=conf` and explicitly specify the required reporting KVPs in the **[custom-states].EventData** option.