GENESYS

SIP Cluster Solution Guide

Enabling Historical Reporting

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Contents

The following task summaries provide an overview of the steps that are required to deploy the products that provide Historical Reporting in the SIP Cluster solution. In general, there are no special steps; only a few configuration settings are specific to the Cluster deployment.

Deploying Interaction Concentrator and Genesys Info Mart

Task Summary

1. **Plan the deployment.**
   For the Interaction Concentrator and Genesys Info Mart architectures that are supported for the SIP Cluster solution, see Historical Reporting Architecture.

2. **Configure Host configuration objects.**
   Configure a Host configuration object for each computer on which the DB Server, ICON server, and Genesys Info Mart server applications will reside.

3. **Assign a DB Server to enable IDB storage.**
   Unless you plan to use a DB Server that also serves another application, configure and install a DB Server for IDB storage purposes. For performance reasons, Genesys recommends that you set up the DB Server on the same host as the RDBMS server.
   For guidelines regarding the number of DB Servers in an environment with multiple IDB instances, refer to Deploying DB Server in the *Interaction Concentrator Deployment Guide*.

4. **Configure and install the Interaction Concentrator (ICON) application.**
   Settings for certain options in the **[callconcentrator]** and **[filter-data]** sections affect Genesys Info Mart and, in deployments that include it, Genesys-provided aggregation. For more information, see Preparing the ICON Application in the *Genesys Info Mart Deployment Guide.*

   1. The following options in the **[callconcentrator]** section on the ICON Application object, with the required settings as noted below, control how Interaction Concentrator stores data in a Cluster environment:

      - cluster-iproxy-udata = all (or conf if only some user data keys are to be saved)

   - use-server-partyuuid = 1

      - ph-use-epn = 1

   2. Genesys Info Mart requires the following settings for options in the **[callconcentrator]** section on the ICON Application object:

      - use-dss-monitor = true

      - calls-in-the-past = true

      - om-force-adata = true

      - gls-active-reason-codes = true

      - partition-type = 2

      - role = cfg (for the Configuration details ICON)

      - role = gcc,gud,gls (for the Voice details ICONs and VQ ICONs)

   3. - role = gos (for the Outbound Contact details ICONs)

Deploying Interaction Concentrator in a Cluster environment requires some additional configuration on the **Connections** tab. Configure the **Connections** tab according to the instructions in the *Interaction Concentrator Deployment Guide*, but making the following adjustments specific to a SIP Cluster environment:

1. Configure a connection to Configuration Server Proxy instead of configuring a connection to Configuration Server.

2. Add the SIP Server to which this instance of Interaction Concentrator should connect.
   If the instance of ICON you are configuring is associated with the VQ SIP Server, no further configuration is necessary. If you are connecting to a SIP Server running in a Cluster mode and handling call and agent data, perform the following steps:

   1. Add a second, dummy SIP Server Application object to the ICON Application **Connections** tab. This Application should have the same configuration as the actual SIP Server Application object except as noted in Configuring SIP Servers for Historical Reporting.

   2. Select a SIP Server Application from the **Connections** list and click **Edit**.

   3. If configuring connection to the actual SIP Server application, specify connection parameters of the IPport. If configuring connection to the dummy SIP Server application, specify connection parameters of the TCport.

   4. On the **Advanced** tab of the **Connection Info** dialog box, configure the following parameters (shown in the graphic below):

      - **ClusterRole**
        Valid Values:

        - I-Proxy - Interaction Concentrator processes interaction data from the SIP Server that operates in Cluster mode. Use this value in the actual SIP Server Application object.

        - T-Controller - Interaction Concentrator processes agent activity data from the SIP Server that operates in Cluster mode. Use this value in the dummy SIP Server Application object.

          Default Value: None

          Note: For details on the supported architecture, see Historical Reporting Architecture.

      - **ClusterName** - The name of the Interaction Concentrator Application.

      - **ClusterNode** - The DBID of the Interaction Concentrator as stored in the Configuration Layer.
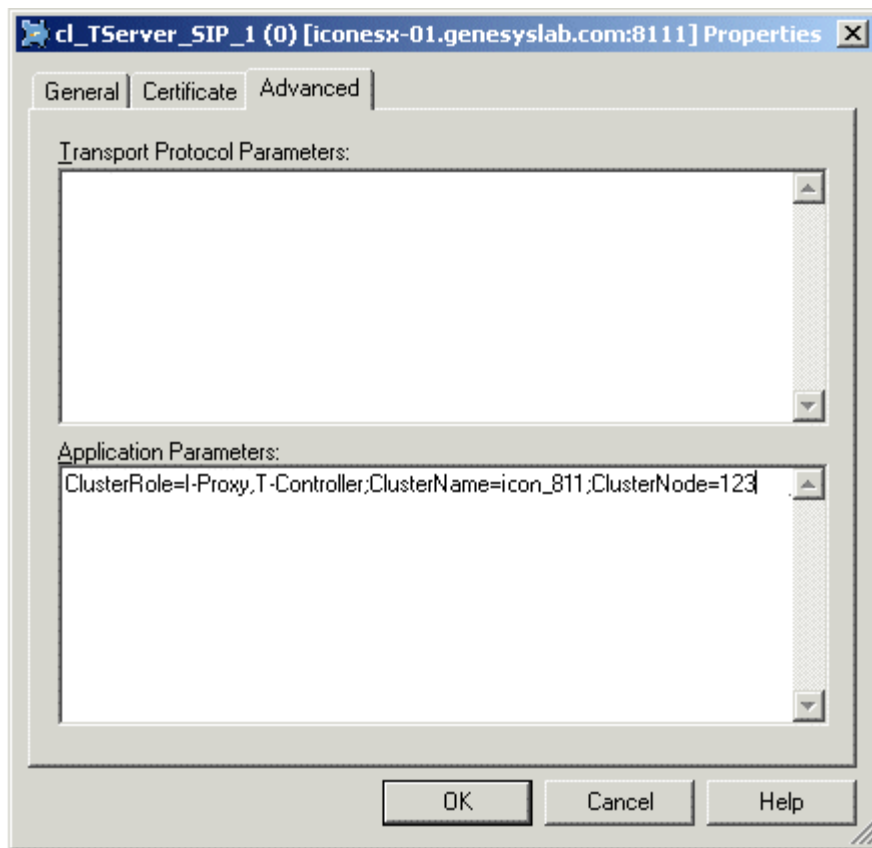
After completing **Connections** tab configuration for ICON connections to both actual and dummy SIP Server Applications, continue to Step 5 (below).

- **Create a new database for each IDB instance that you intend to deploy for ICON data storage.**
  After creating the IDBs, initialize each IDB instance, as described in Deploying IDB in the *Interaction Concentrator Deployment Guide*.

- **For each ICON, configure a database access point (DAP) Application object that specifies IDB connection parameters.**
  Follow the procedure for Deploying DAP in the *Interaction Concentrator Deployment Guide*.
  Ensure that the **role** option values that you specify for the DAP are consistent with the **role** option values specified for the ICON instance that it serves.

- **Modify the attached-data specification file to enable capture and storage of the attached data that you require.**
  See Enabling Storage of User Data, below.

- **Ensure that all required data sources have been enabled, to identify them to Genesys Info Mart as available.**

- **Prepare the Genesys Info Mart database and views.**
  Create and configure database schemas to process and store detailed reporting data. You can find the database scripts required for your RDBMS in the following folder on the Genesys Info Mart product CD:
  `genesys_info_mart\db_scripts\<operating_system>\sql_scripts\<RDBMS_type>`

  For full information, see the sections Preparing the Info Mart Database, Optimizing Database Performance: Database Links, and Optimizing Database Performance: Database Tuning in the *Genesys Info Mart Deployment Guide.*

After you have installed Genesys Info Mart, create tenant views if necessary (see step 18, below).

- **Configure the DAPs that Genesys Info Mart uses to access source and target databases.**
  You need DAPs for:

  - Genesys Info Mart Server to access the IDBs (extraction DAPs).

  - Genesys Info Mart Server to access the Info Mart database (Info Mart DAP).

  - The Administration Console to access the Info Mart database (Administration Console DAP), if you plan to use the Genesys Info Mart Administration Console to monitor ETL jobs. No DAP is required for GIM Manager.

  For the extraction DAPs, you can reuse an existing ICON DAP; to do so, add the gim-etl section with the configuration options that Genesys Info Mart requires in a DAP Application object. For more information about creating new DAPs or reusing existing ones, see Configuring Required DAPs in the *Genesys Info Mart Deployment Guide.*

- **Configure the Genesys Info Mart Server application.**
  The required configuration settings depend directly on the Genesys Info Mart features that you want to implement and on your choice of an end-user reporting tool, such as Genesys CX Insights (GCXI). For full information, see Configuring the Genesys Info Mart application in the *Genesys Info Mart Deployment Guide.* There are no special configuration requirements for the SIP Cluster solution. However, as with any deployment with distributed data centers, if you do decide to configure an optional overt connection to Configuration Server, configure the connection to Configuration Server Proxy instead of to Configuration Server. If your deployment will include Genesys-provided aggregation, be aware that settings on the Genesys Info Mart application affect aggregation. For full information about how to configure Genesys Info Mart for aggregation, see the *Reporting and Analytics Aggregates Deployment Guide.*

- **Configure Switch and DN objects as required for use by ICON or Genesys Info Mart.**
  Options in the gts section (for ICON) and the gim-etl section (for Genesys Info Mart) either do not apply in the SIP Cluster solution or else are required to have the same values as would be set in a non-SIP Cluster deployment, as described in Configuring Supporting Objects in the *Genesys Info Mart Deployment Guide.* For example, in the case of options in the gts section on the Switch object, only the options whose area of functionality is identified as agent-related (Agent State and Login Session, Agent Metrics) apply in the SIP Cluster solution; the gls-associations-rule option, if configured, must be set to 0, and the gls-use-ts-id option, if configured, must be set to 1.

- **Prepare the Genesys Info Mart Server host.**
  Genesys Info Mart requires Java 1.7 JDK or Server JRE, at a minimum, but version 1.8 is recommended. For information about installing the required JDK and JDBC driver, updating system information, and setting up for the optional use of Transport Layer Security (TLS) for connections to Configuration Server Proxy and Message Server, see Preparing the Genesys Info Mart Server host in the *Genesys Info Mart Deployment Guide.*

- **Install the Genesys Info Mart application on its host.**

- **Install the GUI you plan to use to manage and monitor Genesys Info Mart jobs.**
  Depending on your configuration GUI, you can use either:

  - (Recommended) Genesys Info Mart Manager (GIM Manager)—A Genesys Administrator Extension (GAX) plug-in. For information about installing this component, see Installing Genesys Info Mart Manager.

  - The Genesys Info Mart Administration Console—An extension to Genesys Configuration Manager that uses the Wizard Framework. You must install the Administration Console GUI on the same host on which Configuration Manager is installed. The Administration Console host must use the Microsoft Windows operating system.

- **Start Genesys Info Mart.**

- **Verify the deployment.**

  1. Review Genesys Info Mart logs to verify that the deployment is complete and configuration is correct.

  2. In your management GUI (GIM Manager or the Administration Console), review the status of **Job_InitializeGIM** to verify successful initialization of the database and successful update of the IDBs.

- **Create tenant-specific, read-only views on the Info Mart database.**
  Tenant views are strictly required only for multi-tenant deployments; however, Genesys recommends configuring read-only views for single-tenant deployments as well. For more information, see Creating Read-Only Tenant Views in the *Genesys Info Mart Deployment Guide.*

- **Access the management GUI, to continue managing Genesys Info Mart jobs.**

  - For information about accessing GIM Manager, see Using Genesys Info Mart Manager in the *Genesys Info Mart Operations Guide.*

  - For information about accessing the Administration Console, see the chapter about post-installation activities in the *Genesys Info Mart 8.1 Deployment Guide.*

  For more information about how to manage jobs, see Managing and Scheduling Jobs in the *Genesys Info Mart Operations Guide.*

- **(Optional) Enable aggregation (see Enabling Aggregation).**
  Note: This is required for GCXI.

Enabling Storage of User Data

Task Summary

1. **Configure the ICON application to store user data.**
   Ensure that the following option values are set:

   - adata-extensions-history = none

   - adata-reasons-history = none

   - adata-userdata-history = none

2. **Specify the user data that ICON will store in IDB.**

   1. Identify the key-value pairs (KVPs) from various applications that Genesys Info Mart requires for data processing.

   2. For call-based attached data, modify the ICON attached data specification file to capture the KVPs that you require and to control in which IDB table(s) ICON will store the data. If necessary, modify the ICON adata-spec-name configuration option to match the file name that you use.
      Genesys Info Mart provides a sample specification file, **ccon_adata_spec_GIM_example.xml**, which includes the KVPs for which storage is predefined in Genesys Info Mart.

   3. For UserEvent-based user data, set ICON configuration options in the **[custom-states]** section, as required. For more information, see the Interaction Concentrator **[custom-states]** options.

3. **Plan the Info Mart tables in which you want to store custom user data.**

Identify the Info Mart fact or dimension tables in which you want custom user data to be stored, and map the user-data KVPs to the Info Mart tables and columns that you have identified. For more information, see Storing User Data and User Data Mapping in the *Genesys Info Mart Deployment Guide.*

4. **Modify the Info Mart database schema to store the custom user data.**
   For information about creating the custom tables and columns and mapping the KVPs to them, see Preparing Custom User-Data Storage in the *Genesys Info Mart Deployment Guide.* You execute the customized script when you create the rest of the Info Mart database schema, or when you complete the deployment after installing Genesys Info Mart.

5. **(Optional) Enable storage of user data for interactions that are in mediation.**
   In the applicable Virtual Queue DN objects, configure the link-msf-userdata configuration option in the gim-etl section (link-msf-userdata=true).

6. **If necessary, turn off Genesys Info Mart filtering of user data in IDB.**
   By default, Genesys Info Mart filters the call-based attached data in IDB to extract KVPs that were sent in the UserData event attribute only. If you have configured the attached data specification file for ICON to store custom KVPs from the Reasons or Extensions attributes as well, turn off Genesys Info Mart filtering by setting the Genesys Info Mart **filterUserData** startup parameter to false. For information about changing this startup parameter, see Modifying JVM Startup Parameters in the *Genesys Info Mart Deployment Guide.*

7. **(Optional) Streamline Genesys Info Mart processing of user data.**
   If your historical reporting involves the use of large quantities of user data, consider increasing the value of the ud-io-parallelism option in the gim-transformation section of the Genesys Info Mart Application object.

Enabling Aggregation

Task Summary

1. **Install the aggregation engine software—Reporting and Analytics Aggregates (RAA) package.**
   RAA is not included with the GCXI installation package, as it was with the legacy GI2 installation package. For full information about how to install GCXI, including requirements to the machine that hosts Microstrategy software, see the *Genesys CX Insights Deployment Guide.*

   - For full information about how to install the RAA package, see the *Reporting and Analytics Aggregates Deployment Guide.*

2. **Verify that ICON, Genesys Info Mart, and other objects have been configured as required for aggregation.**
   For more information, see the *Reporting and Analytics Aggregates Deployment Guide.*

3. **Configure GCXI.**
   For more information, see the *Genesys CX Insights Deployment Guide.*

4. **(Optional) Configure custom calendars.**
   For more information, see Creating Custom Calendars in the *Genesys Info Mart Deployment Guide.*

5. **Start the aggregation engine.**
   If you have configured the Genesys Info Mart scheduler to control the aggregation process (run-aggregates=true), the aggregation job will start automatically at the scheduled time (as specified by aggregate-schedule).

   - For full information about how to start the aggregation engine, see How Do I Control Aggregation at

Runtime? in the *Reporting and Analytics Aggregates Deployment Guide.*

- For more information about how to schedule and manage the aggregation job in Genesys Info Mart, see Managing and Scheduling Jobs in the *Genesys Info Mart Operations Guide.*