Performance Management Advisors Deployment Guide

Data Manager

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Contents

Data Manager

The Advisors Data Manager provides the following functionality:

- Support for multiple Genesys adapters.
- Load balancing across multiple adapters using the same data source in a single Genesys environment.
- Management of the flow of statistics from Advisors Genesys Adapters (AGA) to both Frontline Advisor (FA) and Contact Center Advisor/Workforce Advisor (CCAdv/WA).
- Maintenance of the authoritative configuration data. Data Manager monitors adapters to ensure that the issued statistics conform to its configuration.
- Use of statistics template definitions to determine the statistics requests that need to be sent to each AGA for each Advisors module (such as CCAdv or FA).
- Use of a handshake protocol to establish connection with all adapters.

Installation and Configuration

During the installation of any adapter, the installation wizard might prompt you for the following information:

- The connection details for the Platform database.
- A unique name for the adapter and the source environment (the latter is requested only in a Cisco environment).

This information, along with the adapter's host name, port, and type (GENESYS or CISCO) 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 CISCO. You must register all AGAs, although you can choose to bypass Advisors Cisco adapter registration.

Configuration Server Integration

If there are agents, agent groups, calling lists, or queues configured in the Configuration Server when Data Manager starts, then Data Manager immediately issues statistics requests to the configured Advisors Genesys Adapter(s).

How Configuration Objects Are Identified

The Configuration Server metadata includes:

- Object Type

- Object ID

- External ID

- Source Environment

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

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

Genesys recommends that one single data source supplies all statistics of a specific statistic type for a given object.

Propagation of Configuration Changes made in Genesys Configuration Server

The following changes to object configuration in Configuration Server affect the Contact Center Advisor/Workforce Advisor configuration:

- The addition of an object to the Configuration Server is reflected on the **Application Configuration** page. New agent groups, queues, calling lists, or interaction queues that you add to the Configuration Server are added to the lists of available objects by simply reloading the **Application Configuration** page.

- Any change to the name of an object will be propagated to the **Application Configuration** page when you reload that page in the Advisors administration module.

Filter Configuration

The master list of filters for Advisors (for CCAdv, WA, or FA) comes from the Business Attributes configured in the Configuration Server. You can see the list under **Advisors Filters** in the Advisors Business Attributes section of your Genesys configuration interface.

Important
The Advisors Filters business attribute must exist on one—and only one—tenant. Genesys recommends that 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 AGA starts, and the filters are not loaded.

Configuring the Advisors Filters

You can find an Advisors filter expression in your Genesys configuration interface. The Annex of a filter attribute value contains the expression that defines that filter; the expression is entered as an option value. For more information about configuring Advisors filters, see Using Advisors Filters Configuration to Segment Objects and Metrics.

Tip

In a migration scenario, the Migration utility that ships with Advisors release 9.0 includes an option that, when selected, will reconfigure the Advisors Filters Business Attribute configuration for you. Previously, you configured the filter expression in the **Description** field of the Filter Business Attribute value, but starting with release 9.0, the filters are configured as Annex options on the Business Attribute. The new migration utility option automatically updates this configuration for filters that were configured in earlier releases. For more information about filter configuration in release 9.0, see Using Advisors Filters Configuration to Segment Objects and Metrics.

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

Filters and Interaction Queues

Filter categorization is not applicable to interaction queue statistics. Available applications do not combine object filter segments with interaction queues because typically interaction queue metrics are not filterable. For more information about application and filter configuration for Contact Center Advisor/Workforce Advisor release 9.0 and later, see Application Configuration in the *Genesys Contact Center Advisor and Workforce Advisor Administrator User's Guide*.

Filters and Calling Lists

Do not associate a statistic filter with a calling list because Stat Server ignores this type of filter on a calling list statistic.

Frontline Advisor Base Object Configuration

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

When 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 AGAs, the source environment is always GENESYS.

Load Balancing

When two or more adapters share the same source environment, they are connected to the same underlying data provider infrastructure and, therefore, 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.

If you add adapters to your deployment after the initially-installed adapters are running, the existing statistics are not automatically re-routed to the newly-added adapters. That is, load balancing is not redistributed among all the adapters, including the ones you added. For the procedure to redistribute the statistics load balancing to include newly-deployed adapters, see Re-distribute Stats Load when Adapters are Added.

Once a statistic is opened with an adapter for a given object, 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.

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 Stat Server Type, 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.

If you have multiple adapter instances installed, make sure that you start, or restart, all of them at the same time.

Troubleshooting Data Manager

If you are experiencing issues with Data Manager, check for the problems described in this section.

The adapter is unavailable

If there is one or more AGA installed and configured for a given module, but the adapter is not running or is unreachable, Data Manager cannot request statistics for that module. Monitor the status of the AGA applications in Genesys Administrator or the Solution Control Interface (SCI).

Data Manager does not redistribute statistics requests to other adapters when one adapter's service is stopped

When one or more adapter (ACA or AGA) instances are installed, ensure that they are always in use. A deployed adapter that is not running can prevent Data Manager from sending requests to the other live adapters. If you have a deployed adapter that is not going to be in use, Genesys recommends that you remove the adapter configuration from the Advisors Platform table ADAPTER_INSTANCES to prevent disruption of service in the active adapters.

If you have multiple adapter instances installed, make sure that you start, or restart, all of them at the same time.

If you have a deployed but inactive adapter, use the following procedure to remove all the objects from its configuration.

Procedure:

Steps

1. Determine which objects are associated with the inactive adapter:

   a. Run the following statement against the Advisors Platform database – this provides the ID value for each adapter instance:

   ```
   select adapter_instance_id, name from adapter_instances
   ```

   b. Run the following statement against the Advisors Platform database – this shows you which Stat Server pairs are associated with the adapter and which objects are associated with the Stat Server pair for each adapter:

```
SELECT * FROM STAT_GROUP_OBJ_MAPPING where STAT_GROUP_ID in (select STAT_GROUP_ID from STAT_GROUP_CONFIG where
ss_pair_id in (select ss_pair_id from ADAPTER_STAT_SERVER where ADAPTER_INSTANCE_ID = <ID of adapter>))
```

Remove the objects associated with the Stat Server pair for the adapter that you must delete from the table.

2. To remove the identified objects, run the following statement:

```
DELETE FROM STAT_GROUP_OBJ_MAPPING where STAT_GROUP_ID in (select STAT_GROUP_ID from STAT_GROUP_CONFIG where
 ss_pair_id in (select ss_pair_id from ADAPTER_STAT_SERVER where ADAPTER_INSTANCE_ID = <ID of adapter>))
```

3. To remove the Stat Server pair rows associated with the adapter, run the following statement:

   ```
   Delete from adapter_stat_server where adapter_instance_id = <ID of adapter to
    delete>
   ```

4. To delete the adapter_instance row, run the following statement:

   ```
   Delete from adapter_instances where adapter_instance_id = <ID of adapter to delete>
   ```

Data Manager reports an error – no Stat Server connections are open

If Data Manager reports that no Stat Server connections are open, check the following:

- Ensure your Advisors Genesys Adapters are configured with Stat Servers. See Manage Advisors Stat Server Instances.

- Ensure that the configured Stat Servers are up and running.