



This PDF is generated from authoritative online content, and is provided for convenience only. This PDF cannot be used for legal purposes. For authoritative understanding of what is and is not supported, always use the online content. To copy code samples, always use the online content.

iWD GAX Plugin Help

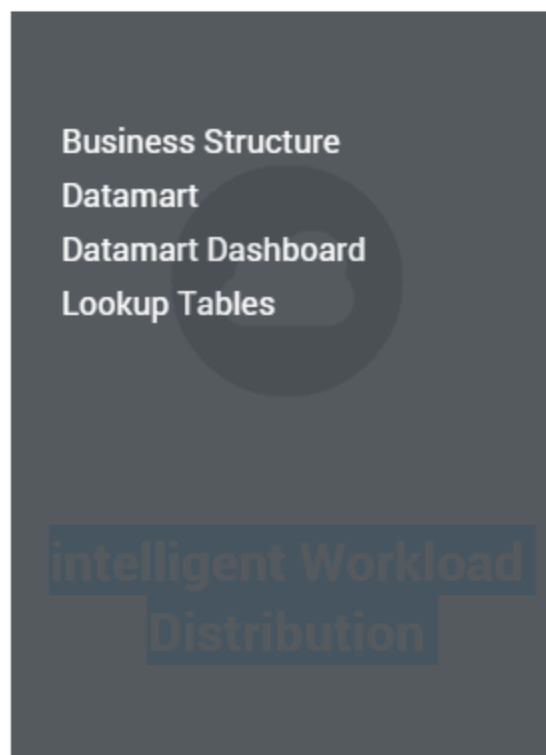
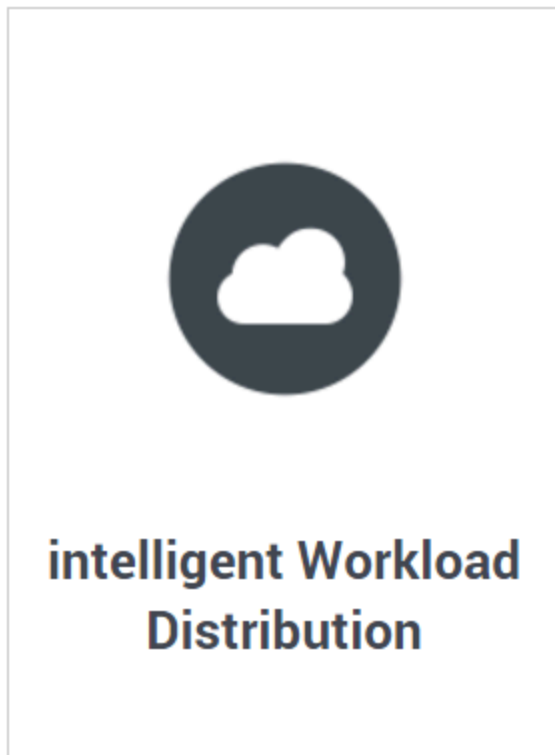
intelligent Workload Distribution 9.0.0

Table of Contents

iWD Genesys Administrator Extension Plug-in Help	3
Business Structure	4
Configuring an iWD Tenant	19
Data Mart	21
Data Mart Dashboard	29
Lookup Tables	31
Configuring a Capture Point for iWD	33

iWD Genesys Administrator Extension Plug-in Help

Main menu



This is the iWD Genesys Administrator Extension (GAX) Plug-in Help. Here you can get help about:

- **Business Structure**—Solutions, Departments and Processes and their attributes and metrics.
- **Configuring an iWD Tenant in GAX**—iWD-specific tasks in GAX for configuring a Tenant.
- **Data Mart**—Configuration details, including Logging, Database, Stat Server, Schedules, Expirations, Tenant Attributes, Department Attributes, Process Attributes, Task Attributes and Dimension Mapping.
- **Data Mart Dashboard**—A real-time view of the status of iWD Services.
- **Lookup Tables**—Creating and modifying Lookup Tables.
- **Configuring iWD-specific Capture Points in GAX**—Configuring iWD Capture Points in GAX.

Business Structure

What is 'Business Structure'?

The Business Structure is a hierarchy of business units. Each Tenant can contain one or more Solutions as the first level of the hierarchy. Below Solutions are Departments. Below Departments are Processes. For example:

- East London Office—Solution (note that this meaning means the top node of a business structure, rather than the meaning of Solution in Genesys Configuration environment.)
 - Finance Department—Department
 - Accounts Payable—Process
 - Order Processing—Process

Warning

All node names have to be unique within the parent node. For example, moving Department D1 to another solution which already has a Department named D1 generates an error.

Warning

Only one business structure per Tenant is possible.

Levels of a Business Structure for a Tenant

Solutions

Solutions are used for partitioning logical and physical resources for purposes of user access control and load partitioning (performance). Normally there will be one Solution per Tenant, though you can configure multiple solution instances per tenant, if necessary (for example, "Production" and "Test").

A Solution in iWD represents a runtime environment, which is composed of the following:

- Runtime nodes—iWD runtime application instances that are within the Java application server in which services are being run
- Services—Services that enable iWD functionality, such as Data Mart, Statistics Adapter, and logging.

- **Business logic**—Primarily the configuration of iWD departments and processes.

The Solution level in a Business Structure corresponds to the Global level in Genesys Rules System for the processing logic of business rules.

Departments

A Department represents an administrative unit within a Solution. A Solution can contain many Departments. The Department level of a Business Structure corresponds to the Department level in Genesys Rules System for the processing logic of business rules.

Processes

A Process represents an administrative unit within a Department. A Department can contain many Processes. The Process level of a Business Structure corresponds to the Process level in Genesys Rules System for the processing logic of business rules.

Display Options

Filters and Constraints

Configuration Server respects tenancy permission settings. You can access only those objects that you have been granted permissions and privileges to access.

You can filter the contents of this list in two ways:

1. Type the name or partial name of an object in the **Quick Filter** field.
2. Click the cube icon to open the **Tenant Directory** filter panel. In this panel, click the Tenant that you want to select. Use the **Quick Filter** field in this panel to filter the Tenant list.

You can sort the items in the list by clicking the **Name** column. Clicking a second time reverses the sort order. You can add or remove columns by clicking **Select Columns**.

To select or de-select multiple objects at once, click **Select**.

Data Fields

Each entry is shown with the following data fields:

- **Name**—The element's name.
- **Type**—Solution, Department or Process
- **ID**—The runtime ID of this element.
- **Contact Name**—Contact name for queries about this element.
- **Description**—Free-format text description of the element.

Solutions

To create a new Solution

To create a new Solution, do one of the following:

- If one or more Solution is already present, select one Solution and click **More**, then click **Clone**, then edit the Solution data fields.
- If one or more Solution is already present, Display the details of an existing Solution and click **Clone**, then edit the new Solution data fields.
- If no Solution is present, click the the **New** button (+), choose **Solution**, then edit the Solution data fields.

Other Actions

From this context you can **Delete** this Solution.

Warning

1. Deleting a Solution can have huge implications for the operation of a contact center. Do not undertake these without serious consideration.
2. If you delete a Solution, all related rules packages in GRS will be lost, and you will not be able to recreate new rules packages with the same name.

Solution Details

Descriptive Details

- **Solution Name**—The Solution name. Mandatory when you add a new Solution.
- **ID**—The ID of the Solution. Mandatory when you add a new Solution. The system will propose a default new Runtime ID.
- **Timezone**—Solution timezone. Use the drop-down list to change this.
- **First Day of Week**—The first day of the working week for this Solution. Use the drop-down list to change this.
- **Description**—Free-format text description of the Solution. Do not use the Runtime ID as a descriptor.

Strategies

The following options allow customization of the strategies used by iWD in the current Solution.

- **Classification Strategy**—The name of the Classification strategy for this solution. Select one from the drop-down list.
- **Prioritization Strategy**—The name of the Prioritization strategy for this solution. Select one from the

drop-down list.

Queue Names

The following options allow customization of interaction queues used by iWD in the current Solution. You must define non-standard queue names when there are multiple iWD business processes configured in the same Tenant. Select the required queue names from the drop-down lists. If a value is missing, a default name is displayed for this queue.

- **Queue for canceled tasks**—Interaction queue for tasks canceled by a Global Task List user or by a capture point. Default values:
 - IRD—iWD_Canceled
 - Composer—iwd_bp_comp.Main.iWD_Canceled
- **Queue for captured tasks**—Interaction queue for tasks successfully processed by the Classification strategy. Default values:
 - IRD—iWD_Captured.
 - Composer—iwd_bp_comp.Main.iWD_Captured
- **Queue for completed tasks**—Interaction queue for tasks marked as completed by agents. Default values:
 - IRD—iWD_Completed
 - Composer—iwd_bp_comp.Main.iWD_Completed
- **Queue for error-held tasks**—Interaction queue for tasks that failed to be processed by the Classification or Prioritization strategies. Default values:
 - IRD—iWD_ErrorHeld
 - Composer—iwd_bp_comp.Main.iWD_ErrorHeld
- **Queue for new tasks**—Interaction queue recognized by iWD as an entry to the business process in this solution. Default values:
 - IRD—iWD_New
 - Composer—iwd_bp_comp.Main.iWD_New
- **Queue for queued tasks**—Interaction queue for tasks successfully processed by the Prioritization strategy. Default vlaues:
 - IRD—iWD_Queued
 - Composer—iwd_bp_comp.Main.iWD_Queued
- **Queue for rejected tasks**—Interaction queue for tasks rejected by the Classification strategy. Default values:
 - IRD—iWD_Rejected
 - Composer—iwd_bp_comp.Main.iWD_Rejected

Interaction Server Settings

Important

iWD Plugin for GAX will propagate the connection to the specified Interaction Server (details below) across iWD Manager Server application objects. The following parameters are set as the connection attributes of the Interaction Server connection in the iWD Manager Server application object:

- Port
 - Connection Protocol
 - Local Timeout
 - Remote Timeout
- **Interaction Server**—The Interaction Server for this Solution. This can be an individual Interaction Server, Interaction Server Proxy or Interaction Server Proxy cluster. Please refer to [Interaction Server Configuration](#) for details. Use the drop-down list to make a selection. This drop-down list contains those Interaction Servers, Interaction Server Proxies and Interaction Server Proxy clusters which contain the Solution's parent Tenant on their Tenants list. Direct connection to Interaction Server clusters is not supported and therefore will not be presented in this list.
 - **Port**—The connection port of the Interaction Server or Interaction Server cluster proxy. Use the drop-down list to change this. This drop-down list contains ports of the Interaction Server or Interaction Server cluster proxy chosen above.

Warning

For connections to a unique Interaction Server only—The iWD Manager application has one common place for all Solutions (and Solutions in different tenants) where Interaction Server connection parameters (for a unique Interaction Server) are kept. If two Solutions are configured to use the same individual Interaction Server, the Interaction Server settings (that is, secure or non-secure) of the Solution that is configured *most recently* are the ones that the Interaction Server will use. It is preferable to ensure that both Solutions' settings are of the same type—either both secure, or both non-secure.

The affected parameters are:

- **Port**
- **Connection Protocol**
- **Protocol Timeout**
- **Local Timeout**
- **Event Buffer Size**
- **Remote Timeout**

- **Threads**

The only parameters to which this does not apply are **Attribute Filter Include/Exclude**.

- **Connection Protocol**—The connection protocol of the Interaction Server. Use the drop-down list to change this.
- **Protocol Timeout**—The timeout configured for the connection protocol.
- **Local Timeout**—The timeout configured on the local server.
- **Event Buffer Size**—The maximum size in bytes of the event buffer.
- **Remote Timeout**—The timeout configured on the remote server.
- **Threads**—The number of threads available.
- **Attribute Filter Include**—Attributes included here will appear in the Custom Attributes displayed in the Global Task List in iWD Manager.
- **Attribute Filter Exclude**—Attributes excluded here will not appear in the Custom Attributes displayed in the Global Task List in iWD Manager.

Warning

- The Interaction Server JDBC URL *must* be configured in release 9.0 in the **Application** view of GAX Configuration Manager. It is used by iWD for accessing the Interaction Server database in order, for example, to perform migrations.
- The EventLog JDBC URL is rendered obsolete in release 9.0 by the iWD History Node.

History Node Settings

Important

iWD Plugin for GAX will propagate the connection to the specified iWD History Node (details below) across iWD Manager Server application objects as well as the iWD Runtime Node associated with the given solution. The following parameters are set as the connection attributes of the iWD History Node connection in the iWD Manager Server and iWD Runtime Node application object:

- Port
- Connection Protocol

- Local Timeout
- Remote Timeout

- **History Node**—The name of the History Node for this Solution. This can be an individual History Node, or the name of a History Node cluster. Use the drop-down list to make a selection.
- **Connection Protocol**—The protocol of the connection to the History Node or cluster. Use the drop-down list to change this.
- **Port**—The connection port of the History Node or History Node cluster. Use the drop-down list to change this. This drop-down list contains ports of the History Node or History Node cluster.
- **Local Timeout**—The timeout configured on the local server.
- **Remote Timeout**—The timeout configured on the remote server.

Important

History Node and History Node clusters can only support one Tenant. For multi-tenant configurations, a separate History Node instance is needed for each Tenant.

Migration

Interaction custom properties and migration issues

This dialog enables you to:

- Add the necessary columns to tables in the Interaction Server and Interaction Server Event Log databases to support iWD.
- Create new iWD-related **Interaction Custom Properties**, which are a type of **Business Attribute**, in the Genesys configuration database.
- Create some options for the Interaction Server Event Log Database Access Point that are necessary to support iWD.
- Add `iWD_Completed` (IRD) or `iwd_bp_comp.Main.iWD_Completed` (Composer) or a customized business process queue name for completed tasks to the Interaction Server configuration.

If any of these updates was not previously done, this dialog will display a table of warnings informing you of the missing attributes or outdated database versions.

Click the **Configure** button to execute the configuration. A message will be displayed in the **Messages** column when the configuration has completed. A restart of Interaction Server is required if any configuration changes were made.

Permissions Settings

Business Structure details include a **Permissions** tab on which users with the relevant permissions can view and edit permissions settings for all users of the selected node.

Permissions Table

Permission	Description
Read	Permission to read information and receive updates about the object.
Create	Permission to create objects in this folder.
Change	Permission to change the properties of the object. The Change permission is the same as allowing "Write" access.
Execute	Permission to perform a predefined action or set of actions with respect to the object.
Delete	Permission to delete the object.
Read Permissions	Permission to read the access control settings for the object.
Change Permissions	Permission to change the access control settings for the object.
Execute	Permission to perform a predefined action or set of actions with respect to this object.
Propagate	For container objects (such as Tenants). The Propagate check box controls whether to propagate this set of elementary permissions to the child objects. By default, the check box is selected).

Actions

- **Add Access Group**—Displays the **Select Access Group** panel from which you can select one of the available Access Groups to add to this node and for whom you can then configure permissions.
- **Add Person**—Displays the **Select Person** panel from which you can select one of the available Persons to add to this node and for whom you can then configure permissions.
- **Replace Recursively**—Enables you, upon confirmation, to remove permissions for all child objects of this container and replace them with the permissions defined in this container.

Departments

To create a new Department

To create a new Department, first choose the Solution to work with, then do one of the following:

- If one or more Department is already present, select one Department and click **More**, then click **Clone**, then edit the Department data fields.
- If one or more Department is already present, display the details of an existing Department and click **Clone**, then edit the new Department data fields.
- If no Department is present, click the **New** button (+), choose Department, then edit the Department data fields.

Other Actions

From here you can **Clone**, **Delete** or **Move** this Department. You can move the Department only to a Solution. Any Processes configured under it will also be moved. Runtime IDs are not moved in the Move function—you must create a new one for the Department and all its child Processes in its new Solution.

Warning

1. Deleting or Moving a department can have huge implications for the operation of a contact center. Do not undertake these without serious consideration.
2. If you delete a Department or Process, any rules assigned to those objects will be inactivated and moved to the Solution level. This happens if you delete and re-create a Solution/Department/Process with the same name.

Department Details

- **Department Name**—The department name. Mandatory when you add a new Department.
- **ID**—The department's Runtime ID. Mandatory when you add a new Department. The system will propose a default new Runtime ID.
- **Contact Name**—The contact name for the department, for informational purposes.
- **Contact Email**—The contact email for the department, for informational purposes.
- **Contact Phone**—The contact phone number for the department, for informational purposes.
- **Start Date**—The date on which the department becomes active. If left empty, the period start date is unconstrained.
- **End Date**—The last day that the department is active. If left empty, the period end date is unconstrained (that is, the department will be active infinitely).
- **Description**—Free-format text description of the Department.

Department Attributes

Click **Add** to create new attributes.

- **Name**—The attribute name
- **Type**—Select from the drop-down list. Valid values are:
 - Text
 - Percentage
 - Number
 - Date
 - Lookup Table
- **Value**—The attribute value. If the type is a lookup table, then the value is set from the drop-down list.
- **Description**—Free-format text description of the attribute.

Department Metrics

Click **Add** to create a set of user-defined metrics, for reporting purposes.

A key component of dashboards and reports is the comparison of actual metrics against target goals. Understanding the effectiveness or efficiency of organizations requires measuring performance against important goals that have been set by the organization. Targets can be associated with a number of objects, such as processes, departments, or tenants. For example, a work-time goal for a task will differ, based on its process; for example, orders will take longer than address changes. You can use metrics to measure this. Example:

When a metrics value is set, it will be stored as a named attribute in Data Mart. If the value is changed, the updates are pushed through to Data Mart with a `valid_from` and `valid_to` date/time stamp. This is important for historical reporting. For example, if you update the target on November 1 from 2.5 to 3.5, all tasks up to November 1 will use 2.5, and all new tasks will use 3.5. If the value is set at a department level, it applies to all processes, unless there is a specific value for that process. For example, Department 1 has four processes: A, B, C, and D. `Cost/Task @ Department 1 = 2.50`, which applies to Processes B, C, and D. `Cost/Task @ Process A = 1.50`, which applies only to Process A.

- **Name**—The metric name
- **Type**—Select from the drop-down list. Valid values are:
 - Text
 - Percentage
 - Number
 - Date
 - Lookup Table
- **Value**—The attribute value. If the type is a lookup table, then the value is set from the drop-down list.

- **Description**—Free-format text description of the attribute.

Permissions Settings

Business Structure details include a **Permissions** tab on which users with the relevant permissions can view and edit permissions settings for all users of the selected node.

Permissions Table

Permission	Description
Read	Permission to read information and receive updates about the object.
Create	Permission to create objects in this folder.
Change	Permission to change the properties of the object. The Change permission is the same as allowing "Write" access.
Execute	Permission to perform a predefined action or set of actions with respect to the object.
Delete	Permission to delete the object.
Read Permissions	Permission to read the access control settings for the object.
Change Permissions	Permission to change the access control settings for the object.
Execute	Permission to perform a predefined action or set of actions with respect to this object.
Propagate	For container objects (such as Tenants). The Propagate check box controls whether to propagate this set of elementary permissions to the child objects. By default, the check box is selected).

Actions

- **Add Access Group**—Displays the **Select Access Group** panel from which you can select one of the available Access Groups to add to this node and for whom you can then configure permissions.
- **Add Person**—Displays the **Select Person** panel from which you can select one of the available Persons to add to this node and for whom you can then configure permissions.
- **Replace Recursively**—Enables you, upon confirmation, to remove permissions for all child objects of this container and replace them with the permissions defined in this container.

Processes

To create a new Process

To create a new Process, first choose the Solution and Department to work with, then do one of the following:

- If one or more Process is already present, select one Process and click **More**, then click **Clone**, then edit the Process data fields.
- If one or more Process is already present, display the details of an existing Process and click **Clone**, then edit the new Process data fields.
- If no Process is present, click the the **New** button (+), choose Process, then edit the Process data fields.

Other Actions

From here you can **Clone**, **Delete** or **Move** this Process. You can move the Process only to a Department. Runtime IDs are not moved in the Move function—you must create a new one for the Process in its new Department.

Warning

1. Deleting or Moving a Process can have huge implications for the operation of a contact center. Do not undertake these without serious consideration.
2. If you delete a Department or Process, any rules assigned to those objects will be inactivated and moved to the Solution level. This happens if you delete and re-create a Solution/Department/Process with the same name.

Process Details

- **Process Name**—The Process name. Mandatory when you add a new Process.
- **ID**—The Runtime ID of the Process. Mandatory when you add a new Process. The system will propose a default new Runtime ID.
- **Contact Name**—The contact name for the process, for informational purposes.
- **Contact Email**—The contact email for the process, for informational purposes.
- **Contact Phone**—The contact phone number for the process, for informational purposes.
- **Start Date**—The date the process becomes active. The start date of the process cannot be earlier than the start date of the parent department.
- **End Date**—The last day that the process is active. If left empty, the period end date inherits the end date value of the parent department.
- **Description**—Free-format text description of the Process.

Process Attributes

Click **Add** to create new attributes.

- **Name**—The attribute name
- **Type**—Select from the drop-down list. Valid values are:
 - Text
 - Percentage
 - Number
 - Date
 - Lookup Table
- **Value**—The attribute value. If the type is a lookup table, then the value is set from the drop-down list.
- **Description**—Free-format text description of the attribute.

Process Metrics

Click **Add** to create new metrics.

A key component of dashboards and reports is the comparison of actual metrics against target goals. Understanding the effectiveness or efficiency of organizations requires measuring performance against important goals that have been set by the organization. Targets can be associated with a number of objects, such as processes, departments, or tenants. For example, a work-time goal for a task will differ, based on its process; for example, orders will take longer than address changes. You can use metrics to measure this. Example:

When a metrics value is set, it will be stored as a named attribute in Data Mart. If the value is changed, the updates are pushed through to Data Mart with a `valid_from` and `valid_to` date/time stamp. This is important for historical reporting. For example, if you update the target on November 1 from 2.5 to 3.5, all tasks up to November 1 will use 2.5, and all new tasks will use 3.5. If the value is set at a department level, it applies to all processes, unless there is a specific value for that process. For example, Department 1 has four processes: A, B, C, and D. `Cost/Task @ Department 1 = 2.50`, which applies to Processes B, C, and D. `Cost/Task @ Process A = 1.50`, which applies only to Process A.

- **Name**—The attribute name
- **Type**—Select from the drop-down list. Valid values are:
 - Text
 - Percentage
 - Number
 - Date
 - Lookup Table
- **Value**—The attribute value.
- **Description**—Free-format text description of the attribute.

Permissions Settings

Business Structure details include a **Permissions** tab on which users with the relevant permissions can view and edit permissions settings for all users of the selected node.

Permissions Table

Permission	Description
Read	Permission to read information and receive updates about the object.
Create	Permission to create objects in this folder.
Change	Permission to change the properties of the object. The Change permission is the same as allowing "Write" access.
Execute	Permission to perform a predefined action or set of actions with respect to the object.
Delete	Permission to delete the object.
Read Permissions	Permission to read the access control settings for the object.
Change Permissions	Permission to change the access control settings for the object.
Execute	Permission to perform a predefined action or set of actions with respect to this object.
Propagate	For container objects (such as Tenants). The Propagate check box controls whether to propagate this set of elementary permissions to the child objects. By default, the check box is selected).

Actions

- **Add Access Group**—Displays the **Select Access Group** panel from which you can select one of the available Access Groups to add to this node and for whom you can then configure permissions.
- **Add Person**—Displays the **Select Person** panel from which you can select one of the available Persons to add to this node and for whom you can then configure permissions.
- **Replace Recursively**—Enables you, upon confirmation, to remove permissions for all child objects of this container and replace them with the permissions defined in this container.

Related Links

- [Data Mart](#)
- [Data Mart Dashboard](#)

- **Lookup Tables**
-

Configuring an iWD Tenant

Important

It is recommended that you do not create any Solutions and Services under the System Tenant. You should do so under a managed Tenant.

Procedure

1. Navigate to **GAX -> Configuration -> Environment > Tenants**.
2. Click **New** to open a configuration page. This has three tabs: **General**, **Options** and **iWD Attributes**. Two more—**Permissions** and **Dependencies**—appear when the Tenant is saved.
3. Enter the following information. For some fields, you can either enter the name of a value or click **Browse** to select a value from a list:
General tab
 - **Name**—The name of the Tenant. You must specify a value for this property, and that value must be unique within the Configuration Database.
 - **Password**—A password that must be used to access this Tenant.
 - **Confirm Password**—A confirmation of the password.
 - **Parent Tenant**—The parent Tenant of this Tenant. By default, the parent Tenant is the Tenant in which you are creating the new Tenant. If you change this field, the new Tenant will be created as a new child Tenant under the specified parent Tenant. To subsequently change the parent Tenant, refer to the Structure tab, above.
 - **Chargeable Number**—The account number to which activities for this Tenant are charged, for cost-tracking purposes.
 - **Default Contract**—The default cost contract applied to resources of this Tenant. For more information, refer to the Routing Solutions chapter of the [Universal Routing 8.0 Routing Application Configuration Guide](#).
 - **State Enabled**—If selected, indicates that the object is in regular operating condition and can be used without any restrictions.
4. Configure the **Options** for this tenant:
 1. Create an iWD section if it does not exist already.
 2. Add business-process-to-use property - List of Business Process names separated by a semicolon to be used for filtering in iWD Manager. By default, iWD Manager only displays queues from the same Business Process as queues defined for a given solution. Business Process names must be taken from:
 - (IRD based BP) Option **[Namespace] / BusinessProcess** set in any Script object of type **Interaction Queue** (GAX > Configuration > Environment > Scripts > [queue_name]).

- (ORS based BP) Option [**__COMPOSER__**] / **owner_uid** set in any Script object of type **Interaction Queue** (GAX > Configuration > Environment > Scripts > [queue_name]).
 - If you want to use all available business processes, use an asterisk symbol (*).
5. Configure user permissions for this Tenant.
 6. Configure any Dependencies for this Tenant.
 7. Configure the iWD Attributes for this Tenant.
 - **ID**—The Tenant's runtime ID, generated automatically.
 - Description of the tenant.
 - **Social Messaging Enabled**—Check to enable social engagement integration for this Tenant.
 - **Rule Authoring Tool URL**—The URL of the Genesys Rules Authoring Tool for this iWD Tenant.
 - **Current Configuration Version**—Contains the version of iWD configuration (Filters, Media Icons, Account Settings) which is applied for the current tenant.
 - **Actual Configuration Version**—Contains the latest available configuration version.
 - Click **Update Configuration** to update the Tenant configuration to the actual version. Usually this button is disabled. Updates are automatically applied during the login into GAX if the user has sufficient permissions. But during the procedure to create a new Tenant, users need to invoke the update explicitly.
 - Click **Inventory Report** to print to screen a complete view of the Tenant hierarchy, including Solutions, Departments and Processes.
 - Add any Custom Tenant attributes by clicking **Add** and filling in the Name Type and Value table.
 8. Save the Tenant.
 9. Open the Tenant again, go to the **iWD Attributes** tab and click "Update Configuration" to create the default set of iWD Manager filters.

Important

If you are not logged in as the default User, or are not a member of the **SuperAdministrators** Access Group, you must have special permissions and role privileges to create a Tenant. Refer to the **Genesys 8.5 Security Deployment Guide** for details about the security requirements for creating a Tenant.

Data Mart

Important

You cannot add a new Data Mart using this configuration component.

Display Options

Filters and Constraints

Configuration Server respects tenancy permission settings. You can access only those objects that you have been granted permissions and privileges to access.

You can filter the contents of this list in two ways:

1. Type the name or partial name of an object in the **Quick Filter** field.
2. Click the cube icon to open the **Tenant Directory** filter panel. In this panel, click the Tenant that you want to select. Use the **Quick Filter** field in this panel to filter the Tenant list.

You can sort the items in the list by clicking a column head. Clicking a column head a second time reverses the sort order. You can add or remove columns by clicking **Select Columns**.

To select or de-select multiple objects at once, click **Select**.

Data Fields

Each entry is shown with the following data fields:

- **Name**—Name of the solution hosting iWD Data Mart.

General

- **Application**—Name of the iWD Runtime Node application attached to the selected Solution. There is a one-to-one relationship between Solutions requiring Data Mart and iWD Runtime Node applications. The iWD Runtime Node can be detached from the Solution by selecting a blank name in this field.
- **Host**—Host where the iWD Runtime Node is installed. Selectable from the list of hosts configured in GAX Configuration Manager.
- **Port**—Port assigned to iWD Runtime Node. Numeric field; the value must be between 1 and 65535 inclusive. The port must be unique within the host.

- **ETL Scripts Directory**—The directory on the server in which iWD Data Mart ETL scripts are stored. For example, the default path used when iWD Data Mart is installed is **C:\Program Files\GCTI\iWD Data Mart\etl**. **Note:** Unicode symbols in the path are not supported.
- **Configuration Server's Database Access Point**—The name of the Database Access Point associated with Configuration Server. Required for Data Mart's Load Config job.
- **Number of Threads**—Performance tuning: the size of the thread pool.
- **Ignored Dimensions**—Performance tuning: the list of dimensions that will be ignored by the Load Intraday job. One dimension per line.
- **Default Dimension Key**—Performance tuning: the default value which will be used for ignored dimensions' keys.
- **Clear Dimension Cache**—Enables or disables persistence of the dimension's cache between Load Intraday job runs. With value `true`, the dimension's cache is cleared when the Load Intraday job completes. With value `false` (default), the cache persists between Load Intraday job runs. Requires restart of the IWD Runtime Node to take effect.

Important

iWD History Node may receive reporting events, from Interaction Server, exceeding the predefined column length. By default, Interaction Server will truncate these values while iWD Datamart will not. If iWD Datamart is failing on Load Intraday job it is up to the user to decide how data must be processed:

- The complete value must be preserved. In this case, increase the column length in both the databases, that is, Interaction Server's DB (interactions table) and iWD Datamart's DB.
- The truncated value is acceptable. Add the configuration option manually in the Runtime Node configuration object, this will be applied without a restart of iWD Datamart. On the **Options** tab, under the settings section add **truncate-columns** with its value set to `true`.

Logging

The Logging tab configures internal logging capabilities within iWD Data Mart.

General logging

- **Log Level**—Logger log level. This should be set to `INFO` unless otherwise instructed by Genesys Technical Support. The possible log levels are:
 - `OFF`—Turns off all logging.
 - `ERROR`—Error events that might not affect the application's ability to run.
 - `WARN`—Potentially harmful situations.
 - `INFO`—Informational messages that highlight the progress of the application.

- **DEBUG**—Detailed informational events that are most useful in debugging an application.
- **TRACE**—The most detailed information.
- **ALL**—Turns on all logging.
- **Timezone**—The time zone to which event timestamps will be converted. Possible values: The ID for a time zone, either an abbreviation such as PST, a full name such as America/Los_Angeles, or a custom ID such as GMT-8:00.
- **Enable Centralized Logging**—Check this checkbox to enable centralized logging to Message Server.
- **Centralized Logging Level**—Log level of centralized appender. Possible values:
 - **STANDARD**—Corresponds to INFO level; so INFO, WARN and ERROR logs will be sent to Message Server.
 - **ALARM**—Corresponds to ERROR log level.
- **Log to Console**—Determines (true/false, default = false) whether to log events to the console.
- **Console Log Level**—Log level of console appender. If not set, logger level is used. Appender level can narrow down logger level but not extend it. For example, if logger level is INFO, it makes sense to set WARN or ERROR appender level, whereas if you set appender level to TRACE or DEBUG it has no effect. Possible values:
 - Same as Log Level—Same as main Log Level
 - **OFF**—Turns off all logging.
 - **ERROR**—Error events that might not affect the application’s ability to run.
 - **WARN**—Potentially harmful situations.
 - **INFO**—Informational messages that highlight the progress of the application.
 - **DEBUG**—Detailed informational events that are most useful in debugging an application.
 - **TRACE**—The most detailed information.
 - **ALL**—Turns on all logging.
- **Log to File**—Determines (true/false, default = false) whether to log events to the file.
- **File Log Level**—Log level of file appender. If not set, logger level is used. Appender level can narrow down logger level but not extend it. For example, if logger level is INFO, it makes sense to set WARN or ERROR appender level, whereas if you set appender level to TRACE or DEBUG it has no effect. Possible values:
 - Same as Log Level—Same as main Log Level
 - **OFF**—Turns off all logging.
 - **ERROR**—Error events that might not affect the application’s ability to run.
 - **WARN**—Potentially harmful situations.
 - **INFO**—Informational messages that highlight the progress of the application.
 - **DEBUG**—Detailed informational events that are most useful in debugging an application.
 - **TRACE**—The most detailed information.
 - **ALL**—Turns on all logging.
- **Log File Name**—The path to the main log file. Same directory will be used for services logs. Default value: **/GCTI/iWD/iwd_dm.log**. Note that it is strongly recommended that you only set the file path to

a directory on a local machine, not a remote location such as a shared network drive. Logging to a remote location can severely impact performance.

- **Archive**—Determines (true/false, default = false) whether to archive old logs in separate files. Archived filenames are set to `<log-filename without extension>-%d-%i<log-filename extension>` if the option **max-file-size** has a value, otherwise they are set to `<log-filename without extension>-%d<log-filename extension>`.
- **Log Size**—Sets a limit on the size of a single log file. The value can be expressed in bytes, kilobytes, megabytes or gigabytes by suffixing a numeric value with KB, MB and respectively GB. For example, 5000000, 5000KB, 5MB and 2GB are all valid values, with the first three being equivalent. Used if the **archive** option is turned on.
- **Log Age**—Controls the maximum number of days for archive files to keep, asynchronously deleting older files. Value 0 (zero) means to keep infinite number of files. Used if the **archive** option is turned on.

Access Log

Access logs are a record of the requests that the server has processed.

- **Timezone**—The time zone to which event timestamps will be converted. Possible values: The ID for a time zone, either an abbreviation such as PST, a full name such as America/Los_Angeles, or a custom ID such as GMT-8:00.
- **Log to Console**—Determines (true/false, default = false) whether to log events to the console.
- **Log to File**—Determines (true/false, default = false) whether to log events to the file.
- **Log File Name**—The path to the main log file. Same directory will be used for services logs. Default value: `/GCTI/iWD/iwd_dm.log`. Note that it is strongly recommended that you only set the file path to a directory on a local machine, not a remote location such as a shared network drive. Logging to a remote location can severely impact performance.
- **Archive**—Determines (true/false, default = false) whether to archive old logs in separate files. Archived filenames are set to `<log-filename without extension>-%d-%i<log-filename extension>` if the option **max-file-size** has a value, otherwise they are set to `<log-filename without extension>-%d<log-filename extension>`.
- **Log Size**—Sets a limit on the size of a single log file. The value can be expressed in bytes, kilobytes, megabytes or gigabytes by suffixing a numeric value with KB, MB and respectively GB. For example, 5000000, 5000KB, 5MB and 2GB are all valid values, with the first three being equivalent. Used if the **archive** option is turned on.
- **Log Age**—Controls the maximum number of days for archive files to keep, asynchronously deleting older files. Value 0 (zero) means to keep infinite number of files. Used if the **archive** option is turned on.

Database

The **Database** tab defines a connection to a Data Mart database server. The configured database and user must exist in the database server. The user must have read/write permissions to the database.

- **Application**—The name of the Database Access Point application associated with Data Mart instance.

- **Database**—The name of the database. This is available only for MS SQL Server.
- **SID**—Oracle System ID of the database. The Oracle System ID (SID) is used to uniquely identify a particular database on a system. This is available only for Oracle database.
- **Server**—The database server. Selectable from list of configured hosts.
- **Port**—The TCP port number of the database server.
- **User Name** —The database user name.
- **Password**—The password for the database.
- **Auto-Sync**—The iWD Data Mart database will be initialized automatically the first time the Database Service and Kettle ETL Service are started. If the **Auto-Sync** option is selected, this initialization is automatic, and the Database Service will also check for updates to the iWD Data Mart database whenever a new version of iWD Data Mart is installed. When selected, the **Auto-Sync** option will also initialize ETL plug-ins.
- **JDBC URL**—Add a specific URL here for the Data Mart database used by iWD Data Mart.
- **JDBC Driver Class**—Should be set if you are going to use a custom JDBC driver different from the following default drivers:
 - MS SQL—`com.microsoft.sqlserver.jdbc.SQLServerDriver`
 - Oracle—`oracle.jdbc.OracleDriver`
 - PostgreSQL—`org.postgresql.Driver`

Stat Server

The **Stat Server** tab configures the Statistics Adapter job and defines a connection to Genesys Stat Server. Statistics Adapter processes the statistical data created by the Aggregate Stats ETL job and writes stat-types and filters in the configuration for Genesys Stat Server. CCPulse+ requests iWD statistics from Stat Server, and reads the stat-types and filters from the Stat Server configuration.

Important

Multiple Stat Servers could be specified manually via the Runtime Node configuration object. On the **Options** tab, provide a list of Stat Servers separated by semicolons for the following option:

- **[stat-server]/name**—`<StatServer_1>;<StatServer_2>;...;<StatServer_N>`
- **Application**—The Stat Server's application name. Selectable from list of installed Stat Server applications. Each Data Mart requires separate Stat Server instance.
- **Dimension Mapping**—Defines how statistical dimensions are mapped.
 - **Filter**—Dimensions are mapped to CCPulse+ filters.
 - **Virtual Queue**—Dimensions are mapped to Genesys virtual queues.

- **Virtual Queue Name**—

- If Dimension Mapping is set to `Filter`, it is the name of the single Genesys virtual queue to which statistics are distributed.
- If Dimension Mapping is set to `Virtual Queue`, it is the prefix to be added to the names of Genesys virtual queues to which statistics are distributed.

- **Service Index**—Statistical service index for configuration options. This should be unique inside the set of indexes, assigned to statistical services served by the one instance of Genesys Stat Server.
- **Extension File Name**—Required to support a Genesys reporting environment with multiple instances of Stat Server Java Extensions. This is the name of the Stat Server Java extension jar file (**BPR_iWD_Extension.jar**). This file is saved to the Stat Server installation directory during installation of the iWD Stat Extensions. You can find the location of this file in Stat Server configuration options as the value of the **java-libraries-dir** option in the **[java-config]** section.
- **Extension Section Name**—Required to support a Genesys reporting environment with multiple instances of Stat Server Java Extensions. This property maps to the section name for the specific Stat Server Java Extension in the Stat Server configuration.
- **JDBC Driver Class**—JDBC Driver fully qualified class name. Should be set only if iWD Stat Server Java Extension needs to use a JDBC driver different from the iWD Data Mart one. This should not occur normally.
- **JDBC Driver JAR File**—The path to the JDBC driver .jar file relative to the directory specified as **java-libraries-dir** in the Stat Server configuration. Specify only if you need to override the default value.
- **JDBC URL**—JDBC URL to access the iWD Data Mart database. Should be set only if iWD Stat Server Java Extension needs to have URL different from the iWD Data Mart one.
- **Create Virtual Queues**—If this checkbox is enabled and **Dimension Mapping** is set to `Virtual Queue`, then Genesys virtual queues will be created automatically by the Statistics Adapter job. The **Virtual Queue Name** value will be used as a prefix.
- **Switch Name**—The switch where Genesys virtual queues will be created. This is a mandatory option if **Create Virtual Queues** is set to `true`.

Warning

The Statistics Adapter job does not check that the JDBC Driver Class and JDBC Driver JAR File values are consistent. It is the user's responsibility to enter a valid class name for this driver JAR.

Important

JDBC URL and JDBC Driver Class options should be provided only in cases where iWD Stat Server Java Extension configuration needs to be different from iWD Data Mart ones. This is a rare case as iWD Data Mart and iWD Stat Server Java Extension access the same database. This might occur when one needs to specify a certificate for secure connection in the JDBC URL and the certificate location on the Stat Server machine is different from the location on the Data Mart machine.

Schedules

The **Schedules** tab configures execution schedule of three Data Mart job groups. The syntax follow standard CRON scheduling expression. For example, the following expression will cause the job to be executed every 15 minutes:

```
0 0,15,30,45 * * * ?
```

For more information about CRON scheduling, see [<http://www.quartz-scheduler.org/documentation/quartz-2.1.x/tutorials/crontrigger> Quartz Scheduler documentation]

- **Intraday**—The schedule for the Intraday job group: Load Config, Load Intraday, Aggregate Intraday, Aggregate Stats and Statistic Adapter. Typically scheduled to run every 15 minutes.
- **Historical**—The schedule for the Historical job group: Load Historical, Aggregate Historical and Maintain. Typically scheduled to run once a day, after midnight.
- **Aggregation Delay Interval (in minutes)**—Specifies the period of time (in minutes) to wait before aggregation. Must be positive integer in a multiple of 15. The default value is 0 (zero).

Expirations

The **Expirations** tab configures the Maintain job, which deletes expired facts from Data Mart tables.

- **Record Details**—The number of days after which the detailed task (task_fact, task_event_fact, and task_work_fact) data will be removed from the database.
- **Aggregation 15 min**—The number of days after which the data will be removed from 15-minute aggregation tables.

Tenant Attributes

The **Tenant Attributes** tab enables selection of up to 5 of a tenant's custom attributes, that will be loaded into the CUSTOM_DIM dimension and associated to the tenant via the **CUSTOM_DIM_KEY** field.

- **Custom Attribute 1-5**—User-configured custom Tenant attributes, selectable from the list of Custom Attributes attached to the Tenant.

Department Attributes

The **Department Attributes** tab allows selection of up to 5 of a departments's custom attributes that will be loaded into the CUSTOM_DIM dimension and associated to the departments via the **CUSTOM_DIM_KEY** field.

- **Custom Attribute 1-5**—User-configured custom Department attributes, selectable from the list of

Custom Attributes attached to any Department within the Solution.

Process Attributes

The **Process Attributes** tab allows selection of up to 5 of a process' custom attributes, that will be loaded into the CUSTOM_DIM dimension and associated to the processes via the **CUSTOM_DIM_KEY** field.

- **Custom Attribute 1-5**—User-configured custom Process attributes, selectable from the list of Custom Attributes attached to any Process within the Solution.

Task Attributes

The **Task Attributes** tab defines up to 10 names of a task's custom attributes that will be loaded into the task_fact custom attribute fields (CUSTOM_ATTRIBUTE 1-10). Names must start with a letter, and only underscores and alphanumeric characters are supported.

Dimension Mapping

The **Dimension Mapping** tab defines up to 5 comma-separated names of a task's custom attributes that will be loaded into the CUSTOM_DIM dimension and associated to the task via the **CUSTOM_DIM_KEY** field. Names must start with a letter, and only underscores and alphanumeric characters are supported.

Related Links

- [Business Structure](#)
 - [Data Mart Dashboard](#)
 - [Lookup Tables](#)
-

Data Mart Dashboard

Display Options

Filters and Constraints

Configuration Server respects tenancy permission settings. You can access only those objects that you have been granted permissions and privileges to access.

You can filter the contents of this list in two ways:

1. Type the name or partial name of an object in the **Quick Filter** field.
2. Click the cube icon to open the **Tenant Directory** filter panel. In this panel, click the Tenant that you want to select. Use the **Quick Filter** field in this panel to filter the Tenant list.

You can sort the items in the list by clicking a column head. Clicking a column head a second time reverses the sort order. You can add columns to or remove columns from display by clicking **Column Picker**.

To select or de-select multiple objects at once, click **Select**.

Data Fields

Each entry is shown with the following data fields:

- **Name**—Name of solution. Clicking on the solution displays the dashboard of the attached iWD Data Mart.

Dashboard Details

Data Mart Data Fields

- **Service Name**—The name of the service. Sort the list using the up and down arrows.
- **Inactive**—The Stopped status appears in this column when service is inactive. Sort the list using the up and down arrows.
- **Active**—The Started status appears in this column when service is running. Data Mart jobs can also have Scheduled status. Sort the list using the up and down arrows.
- **Status Message**—Displays additional service-status details, when available, such as an error message.

Other Actions

To start a service, click it, then click **Start**.

To stop a service, click it, then click **Stop**.

To display the log file for a service, click it, then click **Log**. A new **Log Viewer** window displaying the log contents is shown. In the **Log Viewer** window you can:

- Refresh the log
 - Download the contents of the log to a file
-

Related Links

- [Business Structure](#)
 - [Data Mart](#)
 - [Lookup Tables](#)
-

Lookup Tables

Overview

You can specify lookup tables that can be used in rules, custom attributes, and metrics. Lookup tables are simple key/label pairs and are displayed as dropdown controls. Although business rules are managed in the Genesys Rules System, it is still possible to create rule parameters that use values from iWD Lookup Tables. Example: the **taskChannels** parameter in the iWD Standard Rules Template presents the user with a list of task channels that are read from an iWD Lookup Table.

The **taskChannels** parameter is configured as a database type rule parameter. The configuration of that parameter instructs the Genesys Rules Authoring Tool how to query the Configuration Server database to retrieve the values of the out-of-the-box iWD Lookup Table called **channels**. To create additional rule parameters that will retrieve the values from other Lookup Tables, you can make copies of the **taskChannels** parameter and modify the SQL query, changing the name of the Lookup Table from **channels** to the name of your Lookup Table.

Display Options

Filters and Constraints

Configuration Server respects tenancy permission settings. You can access only those objects that you have been granted permissions and privileges to access.

You can filter the contents of this list in two ways:

1. Type the name or partial name of an object in the **Quick Filter** field.
2. Click the cube icon to open the **Tenant Directory** filter panel. In this panel, click the Tenant that you want to select. Use the **Quick Filter** field in this panel to filter the Tenant list.

You can sort the items in the list by clicking a column head. Clicking a column head a second time reverses the sort order. You can add or remove columns by clicking **Select Columns**.

To select or de-select multiple objects at once, click **Select**.

Data Fields

Each entry is shown with the following data fields:

- **Name**—The element's name.

Actions

To add a new Lookup Table

Either:

- From the List view, click **New** and complete the Lookup Table's details.
- Display the details of a Lookup Table and click **Clone**, then edit the details.

To add a new key/label pair to a Lookup Table

Display the Lookup Table by selecting it, then click **Add** and complete the new details.

Other Actions

From this context you can **Delete** or **Move** this Lookup Table. You can move the Lookup Table only to another Tenant. Runtime IDs are not moved in the Move function—you must create a new one for the Lookup Table in its new Tenant.

Warning

Deleting or Moving a Lookup Table can have huge implications for the operation of a contact center. Do not undertake these without serious consideration.

Related Links

- [Business Structure](#)
 - [Data Mart](#)
 - [Data Mart Dashboard](#)
-

Configuring a Capture Point for iWD

One Application must be configured for each instance of the Capture Point. Interaction Server supports multiple capture points.

Prerequisites

- Interaction Server must be installed.
- A Business Process must be installed on a Tenant.

Procedure

1. Navigate to **Environment > Applications**.
2. Create a new Application object based on the chosen Capture Point template. The CapturePointId will be automatically set to the name of the Capture Point application as configured in GAX. In iWD compatibility mode, it will also be saved as the IWD_capturePointId property in user data. When the Capture Point is configured, the Capture Point ID must be **the same** as the application name in order to ensure accurate events history reporting and accurate filtering. (The Capture Point *Name* can be any value.)

Important

The name of the Capture Point Application must start with a letter, contain only alpha-numeric characters and underscores, cannot be longer than 16 characters and cannot contain spaces.

3. Because the Capture Point is integrated with Interaction Server, the Host and Port information is taken from Interaction Server (which must be listed as a connection on the **Connections** tab). However in order to create the application, you must initially specify the Host by itself. So the Host must be the same as the host for Interaction Server.
4. Add a connection to Interaction Server. Multiple Capture Point **Application** objects can connect to the same Interaction Server.
5. On the **Ports** tab, there must be ports configured. This is required for connection to Interaction Server.
6. On the **Tenants** tab, add the relevant Tenant.
7. Ignore the **Options** tab.
8. Ignore the **Application Options** tab.
9. Apply the Application object to see additional tabs like **iWD Attributes**.

10. On the **iWD Attributes** tab, select the **Solution** from the drop-down list and add a **Description**. If the list is empty, this means that the assigned Tenant does not yet have any Business Structure configured.
 11. At this point, change the Runtime ID (**ID** field) because after the first save of iWD Attributes, the runtime ID cannot be changed. Please remember also that the Runtime ID and the Capture Point name must be the same.
 12. Add the relevant queue names in the listed queue fields. For a standard out-of-box iWD Business Process, these will be the default queue names as supplied. For any customized business process, these will be the names of the custom queues. The following options allow customization of interaction queues used by iWD in the current Solution. Non-standard queue names must be defined when there are multiple iWD business processes configured in the same Tenant. Queue names can be selected from drop-down lists. If a value is missing, a default name is displayed for this queue.
 - **Queue for new tasks**—Interaction queue recognized by iWD as an entry to the business process in this solution. Default values:
 - IRD—iWD_New
 - Composer—iwd_bp_comp.Main.iWD_New
 - **Queue for captured tasks**—Interaction queue for tasks successfully processed by the Classification strategy. Default values:
 - IRD—iWD_Captured.
 - Composer—iwd_bp_comp.Main.iWD_Captured
 - **Queue for queued tasks**—Interaction queue for tasks successfully processed by the Prioritization strategy. Default values:
 - IRD—iWD_Queued
 - Composer—iwd_bp_comp.Main.iWD_Queued
 - **Queue for completed tasks**—Interaction queue for tasks marked as completed by agents. Default values:
 - IRD—iWD_Completed
 - Composer—iwd_bp_comp.Main.iWD_Completed
 - **Queue for rejected tasks**—Interaction queue for tasks rejected by the Classification strategy. Default values:
 - IRD—iWD_Rejected
 - Composer—iwd_bp_comp.Main.iWD_Rejected
 - **Queue for canceled tasks**—Interaction queue for tasks canceled by a Global Task List user or by a capture point. Default values:
 - IRD—iWD_Canceled
 - Composer—iwd_bp_comp.Main.iWD_Canceled
 - **Queue for error-held tasks**—Interaction queue for tasks that failed to be processed by the Classification or Prioritization strategies. Default values:
 - IRD—iWD_ErrorHeld
 - Composer—iwd_bp_comp.Main.iWD_ErrorHeld
 13. Save the Application object.
-

14. When configuration is complete, click **Save**.

Capture Points Configuration Options

Integrated Capture Points' options must be set so that they can put new or modified interactions in the correct interaction queues. When an integrated Capture Point is connected with an iWD solution, its options are automatically synchronized with the solution. The following options are updated in Capture Points to work with a customized iWD business process:

JMS Capture Point and File Capture Point

- **inbound-transformer-parameters**
 - CancelQueues
 - CompleteQueues
 - RestartQueues
- **outbound-transformer-parameters**
 - CancelQueues
 - CompleteQueues
 - ErrorHeldQueues
 - RejectQueues
 - RestartQueues

Web Service Capture Point and Database Capture Point

- **iwd-parameters**
 - CancelQueues
 - CompleteQueues
 - ErrorHeldQueues
 - RejectQueues
 - RestartQueues

All Capture Points

- **default-values**
 - Queue

Note that the sections listed above can include also other attributes. You can find the full list in [eServices Reference Manual](#) documentation.

Queues vs Capture Points' Options Mapping

The following mapping between configured queues and Capture Points' options is maintained.

Capture Point Option	iWD Solution's Queue	Default Value IRD	Default Value Composer
default-values/Queue	New	iWD_New	iwd_bp_comp.Main.iWD_New
RestartQueues	New	iWD_New	iwd_bp_comp.Main.iWD_New
CompleteQueues	Completed	iWD_Completed	iwd_bp_comp.Main.iWD_Completed
RejectQueues	Rejected	iWD_Rejected	iwd_bp_comp.Main.iWD_Rejected
CancelQueues	Canceled	iWD_Canceled	iwd_bp_comp.Main.iWD_Canceled
ErrorHeldQueues	Error Held	iWD_ErrorHeld	iwd_bp_comp.Main.iWD_ErrorHeld

The options are updated whenever a user changes any of the queues in the iWD Solution configuration in GAX. They are also modified when a user changes the assigned Solution in the Capture Point's configuration in GAX. If no Solution has been assigned to the Capture Point, the queue options can be set manually.