Performance Management Advisors Deployment Guide

CCAdv/WA Bulk Configuration – Integrated Mode

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CCAdv/WA Bulk Configuration – Integrated Mode

Contents

For information about the configuration modes and how to set the mode, see Contact Center Advisor and Workforce Advisor Administrator User's Guide. You must select the configuration mode before you perform bulk configuration. Integrated mode is the default mode of operation.

Use the CCAdv/WA bulk configuration tool supplied in the `\bulkconfig\integrated\ccadv-wa-bulkload` folder when you run CCAdv and WA in integrated configuration mode. When you set the integrated configuration mode:

- Agent group-to-application relationships are automatically propagated to the configured contact groups mapped to these applications.
- Applications are available for mapping to a contact group only if they are configured and have a compatible aggregation structure with this contact group.
- Applications mapped to contact groups are included in the WA rollup only if those applications are configured and have a compatible aggregation structure. Any change of application configuration for CCAdv, or a change of contact group configuration for WA that makes the aggregation structures incompatible, removes the application from WA configuration. A configured application and a configured contact group mapped to a non-AGCC contact center have compatible aggregation structures if both are mapped to the same contact center, application group, and regions. A configured application and a configured contact group mapped to an AGCC contact center have compatible aggregation structures if both are mapped to the same application group and regions and the application is mapped to a contact center that represents a parent of the AGCC to which the contact group is mapped.
- Agent groups cannot be mapped to network contact center (NCC) contact groups directly. The list of available agent groups is always empty for NCC contact groups, while the list of assigned agent groups represents the agent groups derived from the contact group-application-agent group relationships.
- Agent groups mapped to an agent group contact center (AGCC) can be mapped to contact groups associated with the AGCC, but they are not included in WA dashboard views until mapped to an application that belongs to the parent NCC and that has a compatible aggregation structure.

Database Structures, Scripts, and Procedures

An object creation script, blkObjectsCre.sql, is supplied in the installation package, in the `\bulkconfig\integrated\ccadv-wa-bulkload` folder. You must execute blkObjectsCre.sql as a script – not as a statement – if opened and executed from the SQL Developer SQL Worksheet.

You apply the blkObjectsCre.sql object creation script to the Platform schema to create the following tables, which are required for the contact group bulk configuration:

- blkAllNames
- blkAllAgntGr
- blkAllLog

You must create all of the preceding tables, but the content is optional. Any and all tables can remain empty. Empty tables do not impact the configuration in any way.

Objects already present in CCAdv/WA configuration, but absent from these tables, remain in the CCAdv/WA configuration after you perform the bulk configuration procedure.

Stored Procedure for Bulk Configuration

You implement the bulk configuration by running a stored procedure, spblkConfigCCAdvWAIntegrated, which is also created when you run the blkObjectsCre.sql script. You execute the procedure against the Platform Oracle schema, or against the Advisors Platform MS SQL Server database, after all base data is prepared in the tables created by running the blkObjectsCre.sql script.

Script to Remove Objects Used in Bulk Configuration Process

The blkObjectsDrop.sql script removes all objects used in the bulk configuration (such as the tables that the blkObjectsCre.sql script creates). You must execute the blkObjectsDrop.sql script before you switch to the independent configuration mode and use bulk configuration tools for that mode.

Stored Procedure for Removing Configuration

You can quickly and completely remove all CCAdv application, agent group and related AGCCs configuration created inside or outside the bulk configuration tool. To remove the configuration, execute the spblkRemoveConfigCCAdv stored procedure.

In integrated configuration mode, WA configuration depends on the CCAdv configuration. The removal of CCAdv configuration also removes parts of the WA configuration, specifically all relationships of contact groups to applications and agent groups. As a result, the WA dashboard will not contain real-time metrics and agent groups. If you restore the CCAdv configuration, all WA relationships will be restored, unless the WA configuration removal procedure is applied before the CCAdv configuration is restored.

Execute the spblkRemoveConfigWA stored procedure to remove the WA contact group configuration including relationships to applications, agent groups, and agent group contact centers and to remove the agent group contact centers associated with WA.

Executing the spblkRemoveConfigCCAdv procedure (Oracle):

```
DECLARE
M VARCHAR2(200);
R NUMBER;
BEGIN
"spblkRemoveConfigCCAdv"
(
M => M,
R => R
);
END;
```

Executing the spblkRemoveConfigWA procedure (Oracle):

```
DECLARE
M VARCHAR2(200);
R NUMBER;
BEGIN
"spblkRemoveConfigWA"
(
M => M,
R => R
);
```

```
END;
```

In an MS SQL Server installation, execute the procedure as follows:

```
USE <name of Advisors platform database>
GO
DECLARE
@m varchar(255),
@r int
EXEC spblkRemoveConfigWA
@m = @m OUTPUT,
@r = @r OUTPUT
SELECT @m as N'@m',
@r as N'@r'
GO

DECLARE
@m varchar(255),
@r int
EXEC spblkRemoveConfigCCAdv
@m = @m OUTPUT,
@r = @r OUTPUT
SELECT @m as N'@m',
@r as N'@r'
GO
```

Important

The procedure will remove all data left from previous configurations that might have a negative impact on the new configurations. It can be very useful before the configuration mode is changed.

To be able to restore the configuration, you must have a reliable set of bulk configuration files or blk tables that you can use to re-load the configuration. Before you execute the configuration removal procedures, make sure that such data exists.

If you do not have a copy of your bulk configuration files or blk tables, you can use the extended export utility to generate a "clean" copy of blk tables from the existing application configuration before you run the configuration removal procedure. The extended bulk configuration export utility is supplied beginning with version 8.5.001. See additional details in Exporting CCAdv/WA Configuration.

You also can execute the bulk configuration removal procedures if you are comfortable with the current configuration loss and want to re-configure the applications from the beginning.

The configuration removal procedure does not remove the data from blk files. Those are always preserved unless the tables are dropped by running the blkObjectsDrop.sql script.

Prerequisites and Preparations

- The application server and XML Generator service must be up and successfully running until the required data (see the following three bullets) displays on the pages of the Advisors Administration module. To ensure that the import runs successfully, check the XML Generator log for import-related errors.
- All relevant applications and agent groups have been automatically imported by XML Generator, and

are available for configuration.

- If WA configuration is included in the bulk data, all relevant contact groups have been automatically imported by the WA server from the WFM system(s) specified during Advisors installation, and are available for configuration.
- Prior to bulk configuration, ensure that all relevant application groups, reporting regions, geographic regions, operating units, and network contact centers are configured. You configure these manually using Advisors administration module.
- No existing configuration is removed when using the bulk configuration tool. If any objects are already configured, or any application-to-agent group relationships are added manually (using the Administration module), they are not removed by the bulk configuration tool. The tool adds to the configuration or changes the mappings of the existing configured objects based on the data contained in the temporary structures.
- If an AGCC does not already exist, one is created by the bulk configuration procedure under every network call center where each application mapped to it (that is, to the NCC) is also mapped to an agent group and that agent group is mapped to an AGCC.

Genesys recommends that all aggregated objects participating in CCAdv/WA configuration are activated in Advisors administration module prior to performing bulk configuration. Optionally, you can complete this step after bulk configuration. In either case, it is required to make the objects visible on the dashboard view.

Bulk Configuration of CCAdv/WA in Integrated Configuration Mode

The following procedure summarizes the steps to perform bulk configuration of CCAdv and WA when you use the applications in integrated configuration mode. The information following this procedure provides additional information to assist you.

1. Start Advisors Application Server and XML Generator.
2. Watch the XML Generator and Geronimo logs. The logs must be free of any import-related errors.
3. Allow the Advisors application to run for approximately 10 minutes.
4. Open the Administration module in the browser.
5. When the aggregated objects are available, configure all those that you plan to use in CCAdv/WA rollups (see Prerequisites and Preparations).
6. Open each of the following pages and ensure that you can see objects among the available and/or configured object lists, as applicable: • Application Configuration page • Agent Group Configuration page • Contact Group Configuration page
7. Connect to the Oracle or MS SQL instance as the platform user.

8. Execute the blkObjectsCre.sql script.

You must execute blkObjectsCre.sql as a script – not as a statement – if opened and executed from the SQL Developer SQL Worksheet.

9. Populate the blk database tables with your application, agent group, and contact group configuration data.

For information about preparing your data, see Data Preparation.
For information about importing data from spreadsheets to the database, see Loading Data from Spreadsheets into Temporary Database Structures.

10. Execute the spblkConfigCCAdvWAIntegrated procedure; for example, use the following string with an Oracle schema:

```
DECLARE
M VARCHAR2(200);
R NUMBER;
BEGIN
"spblkConfigCCAdvWAIntegrated"(
M => M,
R => R
);
END;
```

In an MS SQL Server installation, execute the procedure as follows:

```
USE <name of Advisors platform database>
GO
DECLARE
               @m varchar(255),
               @r int

EXEC spblkConfigCCAdvWAIntegrated
               @m = @m OUTPUT,
               @r = @r OUTPUT

SELECT  @m as N'@m',
        @r as N'@r'

GO
```

11. Verify the log stored in the blkAllLog table.

For information about logs related to the bulk configuration, see Bulk Configuration Validation and Logs.

12. Correct the data, if necessary, and go back to Step 10.

13. Examine all relevant configuration pages in the Advisors Administration module to verify the configuration.

14. Examine the dashboards to verify the configuration.

15. Do one of the following:

a. If you are satisfied with the resulting configuration, connect to the Oracle instance as platform user and execute the blkObjectsDrop.sql script to remove all temporary structures and bulk load procedures.

b. If you are not satisfied with the resulting configuration, go to Step 12. Alternatively, if you see unpredictable results, and you have a reliable set of bulk configuration data loaded into blk tables,

you can remove the whole CCAdv/WA configuration by executing the CCAdv and WA configuration removal procedures. After that you can reload the configuration as described in Step 10. You can remove the whole configuration by executing the following (Oracle):

```
DECLARE
M VARCHAR2(200);
R NUMBER;
BEGIN
"spblkRemoveConfigCCAdv"
(
M => M,
R => R
);
END;

DECLARE
M VARCHAR2(200);
R NUMBER;
BEGIN
"spblkRemoveConfigWA"
(
M => M,
R => R
);
END;
```

In MSSQL Server installations the procedure calls are done as follows:

```
USE <name of Advisors platform database>
GO

DECLARE
               @m varchar(255),
               @r int

EXEC spblkRemoveConfigCCAdv
               @m = @m OUTPUT,
               @r = @r OUTPUT

SELECT @m as N'@m',
               @r as N'@r'


GO

DECLARE
                @m varchar(255),
                @r int

EXEC spblkRemoveConfigWA
               @m = @m OUTPUT,
               @r = @r OUTPUT

SELECT @m as N'@m',
               @r as N'@r'


GO
```

Data Preparation

You can use spreadsheets or CSV files to collect data in a simple file structure that can be loaded into blk database tables. Data preparation for WA can be done while doing data preparation for CCAdv.

Alternatively, you can omit the file preparation and load the data directly into blk database tables from the sources available through your relational database management system (RDBMS).

If you use spreadsheets or CSV files to collect your data, use the information in this section.

Applications

Your spreadsheet or CSV file contains the list of all application names that need to be configured together with the corresponding application display names, contact center names, application group names, reporting region, and operating unit names. Your file must contain eight columns – ten columns beginning with release 8.5.001 – with headers (headers are mandatory), and provide the following information:

- Application Name
- Application Display Name
- Contact Center Name
- Application Group Name
- Reporting Region Name
- Operating Unit Name
- Contact Group Name
- Contact Group Display Name
- Application Include in Rollup Property (for release 8.5.001 and later)
- Contact Group Include in Rollup Property (for release 8.5.001 and later)

Add relevant data to the spreadsheet or file under the corresponding column headers. You then import this data into the blkAllNames database table. To expedite the import of the data from the file into the database table, use the column names exactly as they are used in the associated blkAllNames database table.

Guidelines

Use the following guidelines when preparing your data for bulk configuration:

- If a display name, reporting region, or operating unit is not defined, you must leave the related cell empty (that is, do not populate the cell with N/A or any other identifier). The reporting region or the operating unit must have a valid name – both cells cannot be empty. The whole content of the data row is rejected if any incomplete configuration is detected or there are names that cannot be resolved.
- Each application name (that is, the application name shown on the Application rollup page in the Administration module) must match the name contained in the tmpImportCallType.PeripheralName, tmpImportInteractionQueue.PeripheralName, or tmpImportApp.PeripheralName column of the Platform

database.

- Each contact center name must match the name contained in the CALL_CENTER.NAME column of the Platform database.
- Each application group name must match the name contained in the APPLICATION.NAME column of the Platform database.
- Each reporting region name must match the name contained in the REGION.NAME column of the Platform database, where TYPE='R'.
- Each operating unit name must match the name contained in the REGION.NAME column of the Platform database, where TYPE='O'.
- If used, each contact group name must match the name contained in the CONTACT_GROUP.NAME column of the Platform database.
- Include only contact groups that will be mapped to applications; do not include contact groups that you do not want mapped to applications.
- An empty cell, or any values in the `Include in Rollup` properties that are different from `Y` or `N` are interpreted as `Y` (two new `Include in Rollup` columns are available beginning with release 8.5.001 – see Applications above).

WA does not support interaction queues. Any contact groups specified and associated with interaction queues are ignored.

Application-to-Agent Group Relationships

Your spreadsheet or CSV file contains a list of application names, agent group names, and display names. If the related agent groups must be assigned to agent group contact centers (AGCC), you also specify the names of these AGCCs. If the specified agent group contact center does not exist, the tool creates it, but only if the related application is already mapped to a contact center or listed in the blkAllNames table. If no AGCC, contact group, or display name needs to be specified, leave the corresponding field(s) empty.

This structure is not used for application-to-contact group mapping. A contact group is mentioned in this structure only if you want the contact group to be assigned to an AGCC and the associated agent group.

Your file must contain five columns with headers and provides the following information:

- Application Name
- Agent Group Name
- Agent Group Contact Center Name
- Contact Group Name
- Contact Group Display Name
- Contact Group Include in Rollup Property (for release 8.5.001 and later)

Add relevant data to the spreadsheet or file under the corresponding column headers. You then import this data into the blkAllAgntGr database table. To expedite the import of the data from the file into the database table, use the column names exactly as they are used in the associated blkAllAgntGr database table.

Guidelines

- Each agent group name must match the name contained in the tmpImportSkill.EnterpriseName column of the Platform database.
- If used, each contact group name must match the name contained in the `CONTACT_GROUP.NAME` column of the Platform database.
- Do not include contact groups that need to be mapped to network contact centers. Such contact groups must be placed into the blkAllNames table instead.
- If an AGCC name is supplied, include only contact groups that you want to be mapped to the specified AGCC and agent group; do not include contact groups if the AGCC name is not specified.
- An empty cell, or any values in the `Contact Group Include in Rollup` property that are different from `Y` or `N` are interpreted as `Y`. If the contact group is not specified, the `Contact Group Include in Rollup` property is ignored (applicable beginning with release 8.5.001).

Loading Data from Spreadsheets into Temporary Database Structures

Import content from the spreadsheets or files into the relevant columns of the corresponding database tables using the Oracle SQL Developer or the MS SQL import option. Follow the procedure for each table.

Importing Content into Tables (Oracle)

1. Open SQL Developer and register a connection to the Advisors Platform schema.
2. Navigate to the Advisors platform schema, then to each created table.
3. Right-click on a table and select the Import Data ... option from the menu.
4. Navigate to the relevant file and select it.
5. Follow the SqlDeveloper Import Data Wizard instructions; the wizard guides you through the import process.

Ensure that you verify the data for each step of the Data Import Wizard, in particular:

- Review the data on the Data Preview screen to ensure accuracy.
- Ensure you exclude any unrelated columns that might be present in the file. It is best if you remove unwanted columns from the file before you start the import, rather than excluding columns each time you run the import wizard.
- Ensure that you correctly map columns in the database table to columns in the file. Verify each and every column.
- Verify the parameters before import.

See the SQL Developer documentation if you have questions related to data import using SQL Developer.

Importing Content into Tables (MS SQL)

You must match each spreadsheet with a destination table. Ensure you choose the table that was created for bulk configuration and not the one suggested by the wizard.

1. Open Microsoft SQL Server Management Studio and register a connection to Advisors Platform database.
2. Navigate to the Advisors Platform database and launch the import tool for one of the created tables.
3. Following the import wizard instructions.
4. Import the data from each file that contains prepared configuration data. With MS SQL Server, data can be loaded in one import session if you use Microsoft Excel and the data is consolidated into one spreadsheet with tabs representing the content of each table.

Ensure that you verify the data for each step of the Data Import Wizard, in particular:

- Review the data on the Data Preview screen to ensure accuracy.
- Ensure you exclude any unrelated columns that might be present in the file. It is best if you remove unwanted columns from the file before you start the import, rather than excluding columns each time you run the import wizard.
- Ensure that you correctly map columns in the database table to columns in the file. Verify each and every column.

See the MS SQL Server documentation if you have questions related to data import using Microsoft SQL Server Management Studio.

MSSQL Server Import is very sensitive to special characters which, if present in the files, can trigger import failure accompanied by a message that may seem completely unrelated and will not explain the actual reason. Make sure that the files are clean. Special characters are often invisible and to avoid import failure, you need to check the files for unnecessary empty trailing spaces, empty rows or formatting and remove them before you proceed with the import. While preparing the data, do not copy it from web pages or forms that may contain such characters.

Bulk Configuration Validation and Logs

The contact group bulk configuration procedure (spblkConfigCCadvWAIntegrated) validates each record in the database blk structures. The procedure does not add to the configuration if any serious misconfiguration is discovered in the blk tables. Instead, the procedure records a message in the blkAllLog table and exits. Always review the blkAllLog table content; note rows that contain an asterisk (*). The asterisks typically indicate problems with data in the tables. The number of asterisks normally indicates the number of found issues in the configuration for the related object. See Prerequisites and Preparations and Data Preparation for information about correct data preparation.

Examine the log to see if you encountered errors when performing the bulk configuration. If there are errors reported in the log, correct the data in the spreadsheets or files, and reload the content to the related tables and columns. You can also correct the data directly in the tables and then save the change for the future by exporting the new table content into the files. You can correct only some of

the records leaving the rest intact. When you execute the bulk configuration procedure, the procedure applies changes to objects present in both the CCA and WA parts of bulk configuration tables.

Re-run the procedure to complete or correct the configuration using the updated data. Repeat the process as many times as necessary. The procedure does not reduce existing configuration. The procedure applies all modifications and additions that occurred in the blk tables after your previous execution of the procedure. Any deletion of data from the blk tables, however, is ignored.

The resulting configuration can be verified from the Advisor Administration module and on the dashboard.

Correct Configuration Validation in Advisors Administration Module

Execution of the spblkConfigCCadvWAIntegrated procedure results in the following configuration, which you can validate in the Advisors Administration module:

- Associates applications contained in the blkAllNames table with contact centers, application groups, reporting regions, and operating units contained in the associated columns. The applications for which all names are resolved (all objects with those names are found in the Platform database and their IDs can be located through associations and assignments) are added to the existing CCAdv configuration and included in the rollup. Beginning with release 8.5.001, the `Include in Rollup` property can be controlled from the utility. The property value can be supplied in the additional column added to the blkAllNames table. The value can be `Y` or `N`. An empty cell, or any values other than `Y` or `N` are interpreted as `Y` for compatibility with the previous versions. The procedure also updates display names based on the content in the columns of the table. If the AppDisplayName column in the table is blank for an application, the existing display name for that application, present in the CCAdv configuration, is removed (replaced with the blank name).
- Associates contact groups, where specified, with applications and assigns these contact groups to the contact center, application group, reporting region, and operating unit specified in the row with the contact group. Includes the contact group in the rollup. Beginning with release 8.5.001, the `Include in Rollup` property can be controlled from the utility. The property value can be supplied in the additional column added to the blkAllNames table. The value can be `Y` or `N`. An empty cell, or any values other than `Y` or `N` are interpreted as `Y` for compatibility with the previous versions.
- Associates the contact group with the specified contact group display name. If the CgDisplayName column is blank, the existing display name of the contact group (present in WA configuration) is replaced with the blank name.
- Establishes relationships between applications and agent groups contained in the blkAllAgntGr table.
- Establishes relationships between contact groups and agent groups contained in the blkAllAgntGr table. Each contact group displays in a row with the relevant agent group based on the specified agent group contact center. The contact group inherits the properties of the application contained in the same row of the table as the contact group.
- Records the outcome in the blkAllLog table, which you can examine after the procedure exits.

NEW Exporting CCAdv/WA Configuration

You can export the existing CCAdv/WA configuration into a set of temporary structures compatible with CCAdv/WA bulk configuration. You can then export the structures into delimited files, edit them

by adapting to the bulk configuration format and use those for CCAdv/WA configuration in another environment. You can also use the exported structures to compare the actual CCAdv/WA configuration to your expected configuration.

Run the blkCfgExp.sql script in your Oracle or MS SQL Server installation to export the data.

The script creates and populates, or updates, the following two tables:

- blkExpAllNames
- blkExpAllAgntGr

All entries for which there is a problem contain an explanation of the issue in the `Message` column of each table. Make sure you always review the content of this column.

Beginning with release 8.5.001, the export utility exports data into four tables:

- blkExpAllNames
- blkExpAllAgntGr
- blkAllAgntGr
- blkAllNames

The first two blkExp tables contain expanded configuration data that is presented in a redundant form for diagnostic purposes. As with releases prior to 8.5.001, the `Message` field contains a warning or error information, where applicable. The other two blk tables contain a "clean" non-redundant copy of your Advisors configuration that can be further used “as is” by the bulk configuration tool.

If, at the time of export, the Advisors Platform schema already contains the two blk tables, the utility will create a backup copy of each table with the name containing a timestamp.

For example:

- blk12MAY15063407AllAgntGr
- blk12MAY15063407AllNames

The timestamp format is: `DD MON YY HH24 MI SS`

Once the content of blkAllAgntGr and blkAllNames is saved into the timestamped backup tables, the tables are cleared and the current Advisors configuration is loaded into them.

Beginning with release 8.5.001, there is no need to adapt the exported diagnostic blkExp data in order to craft the Advisor configuration blk structures. The content recorded into the blk tables by the export utility can be used as a data source for the bulk configuration tool. The data can be used for migration to another schema or for re-loading the saved configuration into the same schema after you apply the configuration removal procedure. Genesys recommends that you first verify the content of the diagnostic export tables before loading the configuration data from the blk tables created by the export tool.

The export utility can also be used for saving the versions of Advisors configuration while you are in the process of configuring Advisors. The blkExp data will help to capture and correct a problem as soon as you run the export utility. Any copy of the backup data can be loaded into the blk tables and used for reverting the configuration to any earlier, saved version. Genesys recommends that you use

the bulk configuration removal procedure before each configuration load.