

GENESYS

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Performance Management Advisors Deployment Guide

Deploying SDS and RMC

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Deploying SDS and RMC

Use the procedures on this page to deploy Supervisor Desktop Service (SDS) and the Resource Management console (RMC).

Deployment Roadmap

The arrow icon in the following roadmap indicates where you are in the Advisors deployment process.

- 1. Install the databases that correspond to the Advisors products that you will deploy. Perform the database installation in the following order:
 - a. AGA metrics database
 - b. Grant select privileges on all AGA metrics views to the Platform user.
 - c. Metric Graphing database
 - d. Advisors Platform database

[+] REVIEW IMPORTANT INFORMATION HERE

If the Oracle Platform deployment script issues the following error, ORA-20001: spCreateOneSourceView ORA-01031: insufficient privileges, and you are sure that the Platform user has been issued all necessary privileges, then you might have role-based Oracle security set for the Platform user by your DBA. Make sure you take the deployment script from the current_user sub-folder in the installation package. You can apply the correct script on top of the one that you applied previously, ignoring the exceptions about existing objects and primary key violations. Alternatively, you can ask your DBA to recreate the user and the privileges and apply the correct script.

If your installation package does not contain a **current_user** folder, edit the following scripts by replacing all entries of DEFINER with CURRENT_USER and repeat the database deployment process.

- If initially you used advisors-platform version>_ObjectsPlus.sql, edit these scripts:
 advisors-platform advisors-platform pIMPORT_xxx.sql
 advisors-platform pIMPORT_sql
 advisors-platform-
- If initially you used advisors-platform-<version>_ObjectsCustom.sql or advisors-platform-<version> ObjectsDefault.sql, this would be the only script to edit.

If you prefer, you can contact Genesys Support to obtain the edited scripts.

Alternatively, you can set up the enhanced Oracle security to run Advisors applications as an application user with least privileges. For instructions, see Least Privileges: How to Configure Advisors Database Accounts with Minimal Privileges.

If necessary, run the Advisors Object Migration utility. You must run the Advisors Object Migration utility when:

- You first install Advisors in an environment with a new Configuration Server or when you move an existing Advisors installation to a new Configuration Server.
- If any of the required Business Attributes folders that Advisors components use are not already present in the Configuration Server.
- If you decide to enable metrics that are not yet present in your Configuration Server.
- If you decide to use the Advisors default rollup configuration. Starting with Advisors release 9.0.001.06, a brand new Platform database contains a set of Advisors default hierarchy objects that must be added to the Configuration Server to make the automatic configuration visible on the dashboard. The automatic configuration consists of all base objects mapped to the default

hierarchy. For more information, see Contact Center Advisor Default Rollup Configuration in the Contact Center Advisor and Workforce Advisor Administrator User's Guide.

- If you perform a new installation in an environment that previously had an Advisors release installed that was older than release 8.5.1. In this case, remove all FA metrics that are in the Configuration Server and then run the migration wizard to populate all FA and CCAdv metrics and hierarchy business attributes.
- 2. Create the Advisors User account in Genesys Configuration Server.
- 3. Install the Platform service on servers where it is required for Advisors components. The Platform service is a prerequisite for installing the following components:
 - · Advisors Administration
 - · Advisors Web Services
 - WA Server
 - FA Server with rollup engine
 - CCAdv/WA/FA Accessibility services
 - CCAdv/WA Resource Management console
- 4. Install each adapter that you will use and configure the adapter Application objects with Stat Server connections.
- 5. Install the Advisors components for your enterprise:
 - Contact Center Advisor server (CCAdv XML Generator)
 - · Workforce Advisor server
 - · Frontline Advisor server
 - SDS and the CCAdv/WA Resource Management console
- 6. Make any required configuration changes.

Resource Management and Resource Management User Configuration

The Resource Management Console (RMC) is subject to Role-Based Access Control (RBAC). After you have deployed RMC, a system administrator must assign privileges and permissions to users who will use RMC in the Contact Center Advisor or Workforce Advisor dashboard. These privileges and permissions control a user's or group's access to RMC and, for users or groups who have access to RMC, access to specific functionality within it.

In addition to configuring permissions and privileges, you might need to change property file settings. See Related Information for links to related topics.

Related Information

See the following for more information:

- For general information about using RBAC with Advisors, see Role-Based Access Control for Advisors.
- For information about creating RMC Users in the Genesys environment, see Configuring RMC Users in the Genesys Configuration Layer.
- For information about privileges and permissions for users of RMC, see CCAdv/WA Access Privileges.
- For information about configuring RMC after installing it, see Configure Resource Management Console Properties.
- Procedures on this page assume that you are familiar with, and regularly
 use, one of the Genesys configuration interfaces for creating users, roles,
 access groups, and so on, in the Configuration Layer. If you need detailed
 information about using the Genesys configuration interface, see the Help
 for the interface used in your enterprise:
 - Configuration Manager Help (8.1)
 - · Genesys Administrator Help
 - · Genesys Administrator Extension Help

Important Information about the SDS and RMC Operating Environment

Before you deploy Supervisor Desktop Service (SDS) and Resource Management Console (RMC), ensure you have the correct operating environment for both. Read the following information carefully:

- When connecting SDS to a Configuration Server proxy, SDS supports a connection only to non-secure ports of the proxy server.
- Supervisor Desktop Service SDS is available in both 32-bit and 64-bit versions.
- When installing Java for SDS, use the following table as a guide. Follow this basic rule: On Windows, if the SDS is 32-bit, use 32-bit Java. If SDS is 64-bit, use 64-bit Java. On Linux, the SDS server for Linux is independent of the distribution of Java in this respect.

Operating System	SDS Version	Java 32 or 64
Linux 32- or 64-bit	7.6.300.11 or 7.6.300.12	Java 1.8.x 32-bit/Java 1.8.x 64-bit
Windows 32-bit	7.6.300.11 32-bit	Java 1.8.x 32-bit

Operating System	SDS Version	Java 32 or 64
Windows 64-bit	7.6.300.11 64-bit, or 7.6.300.12 64-bit	Java 1.8.x 64-bit

- Contact Center Advisor release 9.0 requires SDS release 7.6.300.11 or higher, and is not compatible with earlier SDS releases. See the SDS Release Note for information that can help you to select the SDS release that is right for your environment.
- Install SDS and the RMC only after you have installed all other Advisors components that you use in your enterprise. Genesys recommends that you verify the dashboards are working for all installed components (CCAdv, WA, FA), and that the hierarchy in each dashboard rolls up correctly before you install SDS and RMC.
- If you use the Resource Management Console in Contact Center Advisor and/or Workforce Advisor, avoid running Resource Management in Microsoft Internet Explorer 10 or earlier versions; older versions of Internet Explorer can cause serious problems with the Resource Management console.

SDS and RMC Deployment Procedures

Use the procedures on this page to deploy the Supervisor Desktop Service (required for RMC) and the Resource Management Console.

Task Summary

The following tasks are listed in the order in which Genesys recommends you install and configure the Supervisor Desktop Service and the Resource Management Console.

For information about supported operating systems, see the Advisors section in the Supported Operating Environment Reference Guide.

- 1. Configure the Supervisor Desktop Service Application in the Genesys Configuration Layer.
 - See Procedure: Configuring the SDS Application in the Genesys Configuration Layer.
- 2. Deploy Supervisor Desktop Service on a supported Windows or Linux operating system. Use one of the following procedures:
 - Procedure: Deploying Supervisor Desktop Service on Windows
 - Procedure: Deploying Supervisor Desktop Service on Linux
- 3. Complete the Supervisor Desktop Service configuration.
 - See Procedure: Completing the Supervisor Desktop Service Configuration.
- 4. Deploy the Resource Management Console on a supported Windows or Linux operating system.
 - See Procedure: Deploying the Resource Management Console.
- 5. Configure the Resource Management Console. See Procedure: Configuring the Resource Management Console.

Procedure: Configuring the SDS Application in the Genesys Configuration Layer

Steps

- 1. On the Genesys server, launch the Genesys configuration interface (for example, Genesys Administrator).
- Create a host object, under the Environment tenant, for the machine on which you will deploy
 the SDS, if one does not already exist.
 Genesys recommends that the IP address configured in this host object be the actual IP address
 of the server, not a loopback address.
- 3. Import the application template called Genesys_Supervisor_Desktop_Service_763.adp. This template is located with the SDS installation files.
- 4. Create a new Application using the Genesys_Supervisor_Desktop_Service_763.adp application template. Configure the Application using the following guidelines:
 - a. Specify the name of the application as Genesys Supervisor Desktop.
 - Add connections to the T-Servers, Interaction Servers, and the Stat Server to which the SDS will connect.
 SDS can be connected to one primary/backup Stat Server pair.
 - c. (Multi-tenant environments only) Add the non-Environment tenant that SDS will monitor.
 - d. Select the host object configured in **Step 2** above (that is, the server on which you will install SDS). If necessary, change the port number to 8080.
 - e. Enter a single period (.) for the working directory, command line, and command line arguments.
 - f. Ensure you select a login account that has full control privileges. For example, you can select the option to log in as System as long as your System user has full control access privileges.
 - g. Configure options as follows:
 - Under the [license] section, change the value for license-file to the port and host name of the server hosting the license server. This value should be in the format Port@Hostname (for example, 7260@inf-devlab).
 - Specify the following options under the [supervisor] section:
 - set calculated-statistics-enable to true
 - set stat-on-request to true
 - set stat-threads to -1
 - set stat-peeking to false
 - set show-env-tenant to false for multi-tenant configurations, or to true for single-tenant configurations

Tip

The stat-threads= -1 setting can be used to indicate "use all available processors".

For smaller customers the following settings can be used to create periodic SDS statistics polling at 30-second

- stat-peeking=false
- stat-refresh-rate=30

The refresh rate can be increased for more frequent updates, at the cost of increased SDS and Stat Server load.

For larger customers the stat-peeking=true setting can be used to define on-demand statistics retrieval.

· Add the properties for your e-mail messaging system under the [supervisor] section in the list of options; see the following Table for additional information.

[+] Show Table

Property Name	Example Property Value	Description
email-sender-address	adminaccount@email- server.com	The From address used for all Resource Management notification e-mail messages.
email-server	email- server@domainname.com	The mail server name.
email-server-port	25	The default SMTP port.
email-user	sds.email.account	The user account for the e- mail server. Ignored if email-authenticate is set to off.
email-authenticate		Does the e-mail server require authentication? Valid values are on or off.
email-use-SSL		Does the e-mail server use SSL? Valid values are on or off.
password		The password for the e- mail server. Ignored if email-authenticate is set to off.

- 5. In the Applications's permissions, grant to the Advisors user the following permissions on the Application: Read, Change, Read Permissions. See Create the Advisors User Account.
- 6. Save the Application.
- 7. Verify that the T-Server(s), Interaction Server(s), and Stat Server(s) are configured with a correct host (that is, they do not use localhost).

The SDS uses the hosts that are configured in the Configuration Server for the T-Servers, Interaction Servers, and the Stat Servers to determine where they are installed and how to reach them. If these servers are configured with the localhost host, the SDS tries to connect to the server on which it is installed. This will not work if the SDS and the other servers are installed on different machines.

Next Steps

Deploy the SDS on a supported Windows or Linux host machine. See one of the following:

- Procedure: Deploying Supervisor Desktop Service on Windows
- Procedure: Deploying Supervisor Desktop Service on Linux

For information about supported operating systems for Advisors deployments, see the Advisors section in the Supported Operating Environment Reference Guide

Procedure: Deploying Supervisor Desktop Service on Windows

Steps

- 1. If an older version of SDS is already installed, you must uninstall it.
 - [+] Show Steps for Using Command Line
 - a. Stop the SDS service.
 - b. In a command prompt, navigate to the bin subdirectory for the SDS installation.
 - c. Run service.bat uninstall SupervisorDesktopService.
 - d. Delete all files and subdirectories in the root SDS directory.

[+] Show Steps for Using SDS Installer

- a. Stop the SDS service.
- b. Run the SDS installer, selecting the option to update an existing installation.
- c. When prompted, select the option to remove the SDS.

- d. Delete all files and subdirectories in the root SDS directory.
- 2. Ensure that you have either a JAVA_HOME or JRE_HOME environment variable set, pointing to the JDK or JRE root directory respectively.
- 3. Copy the installation package to a directory of your choice.
- 4. Run setup.exe.

You can find the setup. exe file in the folder containing the Supervisor Desktop Service installation package.

The Genesys Installation Wizard for SDS displays and guides you through the rest of the installation.

[+] See information about installer screens

- a. On the **Connection Parameters to the Configuration Server** screen, enter information in all fields.
- b. On the **Select Application** screen, select the application that you created.
- c. On the **Choose Destination** screen, specify the directory in which to install SDS. Clicking the Default button enters C:\GCTI\GenesysSupervisorDesktopService\ Genesys_Supervisor_Desktop. Click the Browse button to navigate to a directory of your choice.

Important

The Supervisor Desktop Service (SDS) installation path must contain no spaces. For example, C:\Advisors\SDS\ADV_Supervisor_Desk_Serv is a valid installation path, but C:\Advisors\SDS\ADV Supervisor Desk Serv is not.

- d. To configure a connection to a backup Configuration Server, enter the connection parameters on the **Connection Parameters to the Backup Configuration Server** screen. This is optional; you can leave this screen empty.
- e. On the Configuration Parameters screen, enter the Tomcat port information.

Next Steps

There are additional steps to complete the SDS configuration. See Procedure: Completing the Supervisor Desktop Service Configuration.

Procedure: Deploying Supervisor Desktop Service on Linux

Steps

- 1. If an older version of SDS is already installed, you must uninstall it.

 If you must uninstall SDS from a Linux platform for any reason, manually remove the installation directory and delete the web application from the server.
- 2. Ensure that you have either a JAVA_HOME or JRE_HOME environment variable set, pointing to the JDK or JRE root directory respectively.
- 3. Copy the installation package to a directory of your choice.
- 4. Run ./install.sh.

You can find the ./install.sh file in the folder containing the Supervisor Desktop Service installation package.

[+] See information about installer screens

- a. On the Connection Parameters to the Configuration Server screen, enter information in all fields.
- b. On the **Select Application** screen, select the application that you created.
- c. On the **Choose Destination** screen, specify the directory in which to install SDS. Clicking the Default button enters C:\GCTI\GenesysSupervisorDesktopService\ Genesys_Supervisor_Desktop. Click the Browse button to navigate to a directory of your choice.

Important

The Supervisor Desktop Service (SDS) installation path must contain no spaces. For example, $C:\Advisors\SDS\ADV_Supervisor_Desk_Serv$ is a valid installation path, but $C:\Advisors\SDS\ADV_Supervisor_Desk_Serv$ is not.

- d. To configure a connection to a backup Configuration Server, enter the connection parameters on the **Connection Parameters to the Backup Configuration Server** screen. This is optional; you can leave this screen empty.
- e. On the **Configuration Parameters** screen, enter the Tomcat port information.

Next Steps

There are additional steps to complete the SDS configuration. See Procedure: Completing the Supervisor Desktop Service Configuration.

Procedure: Completing the Supervisor Desktop Service Configuration

Steps

- 1. On the Genesys server, launch the Genesys configuration interface (for example, Genesys Administrator).
- 2. Edit the options for your Stat Server application as described below:
 - a. Import the StatServerEntries.cfg file (found in the Advisors Genesys Adapter installation directory) into the Stat Server application options. If prompted to overwrite the existing options, choose NO.
 - b. If prompted to overwrite/update any statistics options, do so. The file does not alter any default Stat Server metrics, only ones specific to Advisors. Changing any logging options is optional.
 - c. Restart the Stat Server.
- 3. For performance reasons, Genesys recommends that you update xms and xmx values for servers that host your SDS. Edit these values based on information in the *Genesys Pulse Advisors Hardware Sizing Guide*.
- 4. Use Solution Control Server, Genesys Administrator, or the SDS host to start SDS. To start SDS from the host machine:
 - · On a Windows host machine: Use the Windows service
 - On a Linux host machine: Execute ./startup.sh in the /bin folder

Next Steps

Deploy the Resource Management Console. See Procedure: Deploying the Resource Management Console.

Procedure: Deploying the Resource Management Console

Steps

- Launch the Contact Center Advisor/Workforce Advisor (CCAdv/WA) installation file.
 [+] Show Steps for Linux
 - a. Navigate to the Advisors home directory:

cd /home/advisors

b. Run the CCAdv/WA installer. The page format of this document might cause a line break in the following command, but you must enter it on one line in the command prompt window. The following example uses jdk1.8.0. When you run the command in your environment, be sure to enter the JDK version number that you use in your installation.

```
./jdk1.8.0 <version>/bin/java -jar ccadv-wa-installer-<version>.jar
```

See the *Genesys Supported Operating Environment Reference Guide* for information about Java versions supported with each Advisors release.

[+] Show Steps for Windows

Do one of the following:

• Open a command line window, and enter the following command:

```
java -jar ccadv-wa-installer-<version>.jar
```

Double-click the ccadv-wa-installer-<version>.jar file in the release bundle.

Double-clicking might not work due to system settings, but using the command line terminal should always work. Genesys recommends using the command line window to launch the installer.

For 64-bit systems, if double-clicking to launch the installer, ensure that the Java instance associated with the .jar file type is 64-bit. Running the installer with a 32-bit Java instance will create a Windows service with the wrong executable.

- 2. On the **Modules to Install** screen, select the Resource Management Console checkbox. Genesys recommends that you install RMC after all other Advisors components are installed and working.
- 3. Enter the following information on subsequent screens:
 - On the **Destination Directory** screen, select the base location of the Advisors installation (that is, the base directory where the Platform components and Tomcat are installed). In most cases, this is C:\Program Files\GCTI\Advisors, which is the default location.
 - On the RDBMS Type And JDBC Connectivity screen, select either the SQL Server or the Oracle option whichever you use for database(s). You must also select the Java Database Connectivity (JDBC) type that matches your environment. Select Basic for standalone databases or Advanced for clustered database configurations. The screens that follow are dependent on your selections on this screen.
 - On the Genesys Advisor Platform Database screen, specify the parameters for the Advisors platform database – the fields might vary depending on your selection of Basic or Advanced database type:
 - Database server—If requested, enter the host name or IP address of the database

server. When using numerical IPv6 addresses, enclose the literal in brackets.

- Database name/Service name—If requested, enter the unique name of the database instance.
- Database port number—If requested, enter the database server's port number.
- Database user—The username to be used by CCAdv/WA to access the database.
- Database user password—The password associated with the database user.
- Locate file—Enter the location of the file that contains the JDBC URL (you should have the freeform JDBC URL in a text file). The installer applies the specified freeform JDBC URL when configuring the datasources. If you do not know the location of the JDBC URL, contact your database administrator.
- On the **Resource Management Console** screen, enter the IP address of the SDS server, as well as the port number for the SDS path (the default port number is 8080).
- 4. After you have entered information on all installer screens, click **Install**.
- 5. Click **Show Details**. Use the **Errors** tab to verify that no errors were reported during installation.

Next Steps

See Procedure: Configuring the Resource Management Console.

Procedure: Configuring the Resource Management Console

Steps

 $1.\,$ Configure the RMC properties file

After RMC has installed successfully, you can edit the Advisors\conf\RMC.properties configuration file. For example, you might want to change the maximum skill level, the refresh interval, and/or the number of concurrent users properties. See Configure Resource Management Console Properties for more information.

2. Enable transmission of login events to RMC

When an Advisors user logs in to or out of Advisors, a message describing this event is sent on a topic to the RMC Web application. The RMC receives the message and logs the user in to or out of the SDS server. By default, messages remain alive in the topic for 1 second, but the default value of 1 second is not long enough for the RMC to receive the messages. Using the default value, the RMC will not log users in to the SDS and, when the users try to open the RMC, they

will see messages stating that they are not logged in to the SDS server.

To change how long the Advisors application keeps alive login messages in the topic, update the advisors.user.auth.event.queue.ttl.secs parameter in the conf/ActiveMQ.properties file. You must update the file for every Platform server that will receive requests from users to log in to Advisors.

Genesys recommends setting the advisors.user.auth.event.queue.ttl.secs property to 300 seconds:

advisors.user.auth.event.gueue.ttl.secs=300

Warning

To ensure that the login messages do not expire prematurely, the system time must be identical on the nodes in the Advisors cluster. The logic that decides if a message should expire uses the system time on both the sending and receiving system, so the system time must be synchronized within the cluster.

3. Add an entry to Apache httpd.conf

To access the Resource Management Notification administration pages through the Advisors interface (Advisors Administration module), you must add the following entry to the Apache httpd.conf file on the web server:

ProxyPass /rmc/ ajp://<rmc host>:<rmc port>/rmc/

where <rmc host> is the host name or IP address for the machine on which the RMC module is installed, and where <rmc port> is the corresponding port number (default: 8009).

4. Restart Platform servers

Restart every Platform server for which you changed either the RMC.properties properties or the ActiveMQ.properties file.

If the Platform server is running an Advisors application that is integrated with Solution Control Server, then restart the Advisors server from the Solution Control Interface.

If not integrated with Solution Control Server, then:

- On a Windows host machine: Open the Windows Services window and restart the Platform server.
- · On a Linux host machine:
 - If you have not configured Advisors Platform to start as a service, then from the /bin folder, execute ./shutdown.sh and then ./startup.sh to stop and restart the Platform server.
 - If you have configured Advisors Platform to start as a service, then stop and start the Linux service that controls Advisors Platform.

Next Steps

- See Configure Resource Management Console Properties for information about configuring RMC properties for optimal performance.
- Configure permissions and privileges to allow users access to RMC in the Contact Center Advisor and Workforce Advisor dashboards:
 - See Role-Based Access Control for Advisors for general information about using RBAC with Advisors.
 - See CCAdv/WA Access Privileges for information about privileges and permissions for users of RMC.
 - See Configuring RMC Users in the Genesys Configuration Layer for information about RMC User configuration in the Genesys environment.