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Performance Management Advisors Deployment Guide

Deploying Cisco Adapter

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You run a .jar installation file to deploy Advisors Cisco Adapter (ACA).

You can deploy ACA on a Red Hat Linux or a Windows platform, and with Oracle or MS SQL databases.

All database passwords used by the Cisco Adapter application are encrypted and saved in the ..GCTI\Advisors\CiscoConnector\conf\ cisco adapter.properties file.

To change the password, see Change Encrypted Passwords.

Roadmap

- 1. [+] Install the databases that correspond to the Advisors products you will deploy.
 - a. Advisors Genesys Adapter metrics database
 - b. Advisors Platform database
 - c. Advisors Cisco Adapter database (if you use ACA)
 - d. Metric Graphing database
- 2. Create the Advisors User and the Object Configuration User in Configuration Server. (Note that ACA itself does not require these users.)
- 3. [+] Install the Platform service (Geronimo) on all servers on which you will deploy one of the Advisors components. (Note that ACA itself does not require Advisors Platform, but components that ACA serves require it.)
 - Contact Center Advisor
 - · Workforce Advisor
 - Frontline Advisor
 - Contact Center Advisor-Mobile Edition

- Resource Management Console
- 4. Install each adapter you will use (AGA and ACA). See additional information for CCAdv/WA installations.
- 5. [+] Install the Advisors components for your enterprise.
 - · Contact Center Advisor
 - Workforce Advisor
 - Contact Center Advisor Mobile Edition
 - Frontline Advisor (ACA works only with FA.)
 - SDS and Resource Management
- 6. Make any required configuration changes.

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Procedure=

1. If you are deploying Advisors Cisco Adapter on a Linux system, you must first place the acainstaller-<version>.jar file into the Advisors home directory.

[+] Show Additional Information

a. You can start the installer locally or from a remote desktop. To run the installer remotely, use SSH with X11 forwarding enabled:

ssh -X root@<host>

- b. As root, place the aca-installer-<version>. jar file into the Advisors home directory.
- 2. Launch the installation file.

[+] Show Step for Linux

a. As root, navigate to the Advisors home directory:

cd /home/advisors

b. As root, run the ACA 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:

./jdk1.7.0 <version>/bin/java -jar aca-installer-<version>.jar

[+] Show Step for Windows

Do one of the following:

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

```
java -jar aca-installer-<version>.jar
```

• Double-click the aca-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.

- 3. On the **Server Install Type** screen, the Install the service checkbox is selected by default. You can choose to start the service automatically by also selecting the Start the service checkbox. This is applicable to installations on Windows only.
- 4. On the **Installation details** screen, enter the installation directory for this deployment of Advisors Cisco Adapter. The default directory is C:\Program Files\GCTI\Advisors\CiscoAdapter, but you can specify a directory of your choice.

On this screen, you also specify the directory in which log files will go. The default log directory is C:\Program Files\GCTI\Advisors\CiscoAdapter\Log.

- 5. On the **Java Development Kit** screen, specify the root directory for your JDK installation by either entering it or by browsing to it with the Select Folder button.
- 6. On the **Cisco Database Configuration** screen, enter the information required for connecting to the databases.

In the Database server field, enter either the host name or IP address of the server. When using numerical IPv6 addresses, enclose the literal in brackets.

7. On the **Database Type** screen, select either the SQL Server or the Oracle option – whichever you use for databases in your installation. The screens that follow are dependent on your selection.

[+] Show Step for SQL Server

On the **Advisors Cisco Adapter Database Configuration** screen, specify the parameters for the database:

- Database server—The host name or IP address of the machine where the database is installed. When using numerical IPv6 addresses, enclose the literal in brackets.
- Database name—The unique name of the database instance; for example, ciscoadapter db.
- Database port—The database server's port number.
- User name—The Advisors user that will be used by the Adapter to access the database.
- Database password—The password associated with the Advisors user that will be used by the Adapter to access the database.

[+] Show Steps for Oracle

- a. On the Oracle JDBC Driver screen, specify the location of the Oracle JBDC driver.
- b. On the **Oracle setup type** screen, select the Basic radio button.
- c. On the **Advisors Cisco Adapter Database Configuration** screen, specify the parameters for the ACA database:
 - Database server—The host name or IP address of the machine where the CCAdv/WA metrics database is installed. When using numerical IP v6 addresses, enclose the literal in brackets.
 - Database SID—The unique name of the database instance; for example, orcl.
 - Database port—The database server's port number.
 - Database schema—The Advisors user that will be used by the Adapter to access the database.
 - Database schema password—The password associated with the Advisors user that will be used by the Adapter to access the database.

[+] Show Steps for Oracle RAC

- a. On the **Oracle JDBC Driver** screen, specify the location of the Oracle JBDC driver. You can use only the Oracle database 11g release 2 (11.2.0.2.0) driver. The download file is ojdbc6.jar.
- b. On the **Oracle setup type** screen, select the RAC connectivity setup option.
- c. On the Advisors Cisco Adapter Database Configuration RAC screen, specify the parameters for the ACA database:
 - Database schema—The Advisors user that will be used by the Adapter to access the database.
 - Database schema password—The password associated with the Advisors user that will be used by the Adapter to access the database.
 - Locate file—Enter the location of the file that contains the advanced database connection string. If you do not know how to correctly build the advanced database connection string, contact your database administrator. The installation wizard applies the specified advanced connection string when configuring the data sources.
- 8. On the **Adapter Port and Registration Option** screen, specify the ACA port number, and indicate if you want to register the ACA in the platform database or not.

You can use the default port, 7000, if no other application is using that port. If you leave the Skip Registration checkbox empty (unselected), you must enter additional information about the adapter and about your Advisors platform database.

[+] Show Steps

- a. Enter the following information about the adapter on the **Register Adapter** screen:
 - Name
 - · Host Address
 - Description (for example, Advisors Cisco Adapter)
 - Source Environment (for example, Cisco)

- b. Enter the following information about your Advisors platform database:
 - For MS SQL or basic Oracle (single instance) databases On the **Platform Database Configuration** screen, enter the Server, Name, Port, User Name, and Password for the platform database with which the adapter is to be registered.
 - For Oracle RAC databases On the **Platform Database Configuration RAC** screen, enter the Database schema and corresponding password. In the Locate file field, enter the location of the file that contains the advanced database connection string. If you do not know how to correctly build the advanced database connection string, contact your database administrator. The installation wizard applies the specified advanced connection string when configuring the data sources.
- 9. On the Installation Progress screen, click Show Details, and then Install.
- 10. Verify that there are no errors during installation.
- 11. In the Services Control Panel applet, verify that an Advisors Cisco Adapter service is installed. If the option to start the service was selected earlier, the service's status should be Started (applicable to installations on Windows only).

If you use a Linux platform, manually configure ACA to run automatically as a system service:

[+] Show steps

a. As root, create an /etc/init.d/advisors-aca file with the following contents; remember to replace <version> with the version number of your file and <Advisors directory> with your directory's name:

```
#!/bin/bash
# description: Advisors Cisco Adapter Start Stop Restart
# processname: advisors
# chkconfig: 235 20 80
#
export PATH=/home/advisors/jdk1.7.0_<version>/bin:$PATH
ACA_BIN=/home/advisors/<Cisco Adapter directory>/bin
cd $ACA BIN
case $1 in
start)
/bin/su advisors ./startup.sh
stop)
./shutdown.sh
restart)
./shutdown.sh
/bin/su advisors ./startup.sh
esac
exit 0
```

b. As root, make the startup script executable:

chmod 755 /etc/init.d/advisors

c. As root, configure the system to start the Advisors process at boot time:

```
chkconfig --add advisors chkconfig --level 235 advisors on
```

d. As root, check that the configuration is correct:

```
chkconfig --list advisors
```

The output should be similar to the following:

```
advisors 0:off 1:off 2:on 3:on 4:off 5:on 6:off
```

e. As root, test the service starts correctly:

```
service advisors-aca start
```

Wait until startup is complete. Open the Advisors interface in your browser (http://<host>:8080/admin/) and log in; the page should be available.

f. As root, test that the service stops correctly:

```
service advisors-aca stop
```

Wait until shutdown is complete. Open the Advisors interface in your browser (http://<host>:8080/admin/) and log in; the page should be unavailable.

|-| Deploying multiple instances of ACA on a single server=

It is possible to deploy multiple instances of Advisors Cisco Adapter on a single server. Multiple Cisco Adapters can be installed to provide metrics from separate HDS/AWDB source environments.

For each installation, you will:

- · Create the database.
- Install and configure the ACA core service. On the the Server Install Type screen, the Install the service checkbox is preselected; ensure the Start the Service check box is unchecked.

Deploy the second, and subsequent ACA instances, using the same procedure you use to deploy a single instance, and follow these rules:

- You must install each Cisco Adapter instance in a different directory. For example, the first instance could use the following location:
 - C:\Program Files\GCTI\Advisors\CiscoAdapter
 and the second instance could be located at:
 - C:\Program Files\GCTI\Advisors\CiscoAdapter2.
- You must specify a unique log directory and a unique data directory for each Cisco Adapter instance.
- You must specify a unique port number for each Cisco Adapter instance.

Ignore the following error if it occurs during installation of additional ACA instances. The missing service will be installed in Step 1.

[exec] wrapper | CreateService failed - the specified service already exists. (0x431)

You must also edit the configuration file for each additional ACA core service deployment. After the adapter is installed, navigate to the \conf folder and follow the procedure below.

- 1. Locate and edit the wrapper.conf file:
- a. Search for the # Name of service string.
- b. Edit the parameter below it (wrapper.ntservice.name=) so that the service name is different from the original instance. For example, Advisors Cisco Adapter 2.
- c. Edit the next parameter (wrapper.ntservice.displayname=) so that the display name differs from the original instance. This is the name that will appear in the NT Services dialog. It is not necessary for it to match the name above.
- d. Save and close the file.
- 2. Navigate to the /bin folder of the second installation, and execute the Install-Adapter-NT.bat file to install the renamed service. You can then locate and start the service in the Services Control Panel applet.

|-| Troubleshooting=

The following Table shows parameter validation errors that you may encounter at the end of installation.

| Installation Error Message | Cause |
|---|---|
| <pre>[java] Failed to connect to the database using connection URL:</pre> | |
| [java] jdbc:sqlserver://192.168.xx.yy:nnn;DatabaseNaselectMethod=cursor [java] The following exception was thrown: com.microsoft.sqlserver.jdbc.SQLServerException The TCP/IP connection to the host 192.168.xx.yy, port nnn has failed. Error: "Connection refused. Verify the connection properties, check that an instance of SQL Server is running on the host and accepting TCP/IP connections at the port, and that no firewall is blocking TCP connections to the port. | |
| [java] Failed to connect to the database using connection URL: [java] jdbc:sqlserver://192.168.xx.yy:nnnn;DatabaseN password=very_secure_pwd [java] The following exception was thrown: com.microsoft.sqlserver.jdbc.SQLServerExceptithe TCP/IP connection to the host 192.168.xx.yy, port nnnn has failed. Error: "connect timed out. Verify the connection properties, check that an instance of SQL Server is running on the host and accepting TCP/IP connections at the port, and that no firewall is blocking TCP connections to the | Name=NotAPlatformDB;selectMethod=cursor;user=sa; i ^{.o} Wrong database name |

| Installation Error Message | Cause |
|---|---|
| port." | |
| <pre>[java] Exception while connecting: Login failed for user 'badUserId'.</pre> | |
| <pre>[java] url used: jdbc:sqlserver://192.168.xx.yy:nnnn;DatabaseN password=very_secure_password</pre> | Wrong database user name or password Name=ys_cadb;selectMethod=cursor;user=badUserId; |
| [java] Exception in thread "main" java.security.InvalidParameterExcept ERROR: Failed to verify validity of the JDK 1.6 located at /home/ yevgeny/dev/java/j2sdk1.4.2_08. | rion: |
| [java] ERROR: Invalid JDK version found at /home/yevgeny/dev/java/j2sdk1.4.2_08, the version must be at least 1.6, but was 1.4 [java] at com.informiam.installer.jdk.JdkVersionChecker(JdkVersionChecker.java:66) [java] ERROR: Failed to verify validity of the JDK 1.6 located at /home/yevgeny/dev/java/j2sdk1.4.2_08. [java] at | Wrong path to JDK or wrong version of the JDK specified. |
| com.informiam.installer.jdk.JdkVersionChecker (JdkVersionChecker.java:81) | r.main |
| Apr 11, 2011 3:53:46 PM oracle.jdbc.driver.OracleDriver registerMBeans WARNING: Error while registering Oracle | |
| <pre>JDBC Diagnosability MBean. java.security.AccessControlException: access denied (javax.management.MBeanTrustPermission register)</pre> | |
| <pre>at java.security.AccessControlContext.checkPermi Source) at</pre> | ission(Unknown |
| <pre>java.lang.SecurityManager.checkPermission(Unk Source) at</pre> | |
| <pre>com.sun.jmx.interceptor.DefaultMBeanServerInt Source) at</pre> | Displays in the Errors tab when installing Cisco Adapter with Oracle JDBC tedत्रवह Notes প্রতিক্রিপ্রতিত্য এই বিভান্ত করি কর্মির ইন্সি (स्पृधी १५) कि That installation was successful. |
| <pre>com.sun.jmx.interceptor.DefaultMBeanServerInt Source) at</pre> | terceptor.registerMBean(Unknown |
| <pre>com.sun.jmx.mbeanserver.JmxMBeanServer.regist Source) at</pre> | terMBean(Unknown |
| <pre>oracle.jdbc.driver.OracleDriver.registerMBear at oracle.jdbc.driver.OracleDriver\$1.run(OracleDriver\$1.run)</pre> | |
| <pre>at java.security.AccessController.doPrivileged(Method)</pre> | |
| <pre>at oracle.jdbc.driver.OracleDriver.<clinit>(OracleDriver)</clinit></pre> | cleDriver.java:195) |
| Exception in thread "AWT- | Produced in error and can be ignored. |

| Installation Error Message | Cause |
|---|---------------------------------------|
| EventQueue-0" java.lang.ArrayIndexOutOfBoundsExcep 32 | otion: |
| <pre>at sun.font.FontDesignMetrics.charsWidth(Unknowr Source) at</pre> | |
| <pre>javax.swing.text.Utilities.getTabbedTextOffse Source) at</pre> | et (Unknown |
| <pre>javax.swing.text.Utilities.getTabbedTextOffse Source) at</pre> | |
| <pre>javax.swing.text.Utilities.getTabbedTextOffse Source) at</pre> | |
| <pre>javax.swing.text.PlainView.viewToModel(Unknow Source) at javax.swing.text.FieldView.viewToModel(Unknow</pre> | |
| Source) at javax.swing.plaf.basic.BasicTextUI\$RootView.v | |
| Source) at javax.swing.plaf.basic.BasicTextUI.viewToMode Source) | el (Unknown |
| <pre>[loadfile] Unable to load file:</pre> | |
| <pre>java.io.FileNotFoundException: C:\ (The system cannot find the path specified)</pre> | Produced in error and can be ignored. |
| 1 | |