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# Genesys Administrator Extension Deployment Guide

Deploying Genesys Administrator Extension

# Deploying Genesys Administrator Extension

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This page describes how to install and deploy Genesys Administrator Extension. Before beginning your installation, ensure that you have met the prerequisites listed in [Prerequisites](#). If you plan to install any of the modules in Genesys Administrator Extension, refer to [Prerequisites for Genesys Administrator Extension Modules](#) before using them.

Genesys Administrator Extension can be deployed via [Setup Mode](#) or the [command line](#).

### Important

- Although Configuration Server might support more database types, GAX only supports the following database types: Oracle, Microsoft SQL Server, and PostgreSQL.
- Although Management Framework supports various operating systems, GAX can only deploy Configuration Server and Database Server on Windows Server 2003/2008/2012 or Red Hat Enterprise Linux 5.5/6.x. See [Prerequisites](#) for more information on operating systems that are supported by GAX.

## Deploying Genesys Administrator Extension via Setup Mode

Setup Mode can set up new instances of GAX to connect to an existing Management Framework deployment. You can also use Setup Mode to install and configure new Genesys deployments. In the latter scenario, Setup Mode will install GAX, Configuration Server, and Database Server (where applicable). After these components are installed, you can use the installation package (IP) management features of GAX to deploy other installation packages.

To access Setup Mode, you must be a local user on the machine upon which GAX will be installed. You are considered a local user if you are using this machine in person or via a remote desktop connection.

The following table describes how to deploy GAX via Setup Mode.

<multistep> Set up the database= Choose one of the following database types:

Oracle

**[+] Click to show section**

Procedure: Setting up the Genesys Administrator Extension database (for Oracle)

**Purpose:** To set up the Oracle 11g R2 or Oracle 12c database that is used by Genesys Administrator Extension.

### Steps

1. Refer to the Oracle documentation to install the Oracle Database Management System on the host machine.
2. Use the following SQL commands to create the users and ensure that they do not have excessive permissions:

```
create user <username> identified by <password>;  
grant connect, resource to <username>;  
alter user <username> quota 10M on USERS;
```

### Important

The above quota value is an example. Consult the Oracle documentation to determine the correct quota value for your system.

3. If you are setting up a new Configuration Server, perform the following steps on the Configuration Server host:
  - Run the Oracle Net Configuration Assistant.
  - Select **Local Net Service Name Configuration** to create an entry in the **tnsnames.ora** file to map the Local Net Service Name to the host, port, and SID (System ID) used by the database.

### Important

The Local Net Service Name must be the same as the SID in order for Setup Mode in GAX to work properly.

- The **ORACLE\_HOME** environment variable must be set to the installation directory of the Oracle database client.

Refer to the Oracle documentation for additional details on completing this step.

### (Optional) Enable UTF-8 character encoding for Oracle databases

To enable UTF-8 character encoding for Oracle databases in Genesys Administrator Extension, you must ensure that:

- Configuration Server 8.1.2 or higher is installed.

- UTF-8 string encoding is enabled on Configuration Server 8.1.2 or higher.

The database character set must be set to **AL32UTF8** to support the use of UTF-8 character encoding. To verify the character set, use the following SQL command:

```
SELECT * FROM NLS_DATABASE_PARAMETERS;
```

In the response, if NLS\_CHARACTERSET is set to AL32UTF8, no additional actions are required. Otherwise, refer to the Oracle support guide for more information about character set migration:

[http://docs.oracle.com/cd/B28359\\_01/server.111/b28298/ch11charsetmig.htm](http://docs.oracle.com/cd/B28359_01/server.111/b28298/ch11charsetmig.htm)

### Warning

Character-set migration is a non-reversible process. Incorrect data conversion can lead to data corruption, so always perform a full backup of the database before attempting to migrate the data to a new character set.

### Important

In most cases, a full export and import is recommended to properly convert all data to a new character set.

## Microsoft SQL

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#### Procedure: Setting up the Genesys Administrator Extension database (for Microsoft SQL Server)

**Purpose:** To set up the Microsoft SQL Server 2008/2012 database that is used by Genesys Administrator Extension.

##### Steps

1. Refer to the Microsoft SQL Server documentation to create the Microsoft SQL Server Database for GAX.
2. Start SQL Server Management Studio.
3. Connect to Microsoft SQL Server as sa.

- Server type: Database Engine
- Server name: Local
- Authentication: SQL Server Authentication
- Create a login and password for the GAX database. For example: gax850admin with the password password.
- Create the GAX database (for example, gax850) by using the login to make this login the owner of the database.

### Important

When you create the login, uncheck the **Enforce password policy** check box.

- Verify that you can connect to the database with the login that you created:
  - Server type: Database Engine
  - Server name: Local
  - Authentication: SQL Server Authentication

## PostgreSQL

### [+] Click to show section

#### Procedure: Setting up the Genesys Administrator Extension database (for PostgreSQL)

**Purpose:** To set up the PostgreSQL database that is used by Genesys Administrator Extension.

#### Steps

### Important

It is recommended to use PostgreSQL version 9.1.x.

1. Refer to the PostgreSQL 9.1 documentation to create the PostgreSQL Database for GAX.
2. Start pgAdmin.
3. Select the PostgreSQL 9.1 connection and connect to the PostgreSQL database with the following user name: postgres.

### Important

If a PostgreSQL 9.1 connection is not available, you can create it by clicking **Add Server**.

4. Create a login and password for the GAX database.

For example: gax850admin with the password password.

You can execute queries by clicking **Query Tool**. For example:

```
CREATE USER gax WITH PASSWORD 'gax850admin' CREATEDB;
```

5. Create the GAX database (for example, gax850) by using the login created in Step 4 to make this login the owner of the database.

```
create database gax850 owner gax;
```

6. Connect to the database with the login that you created in Step 4.

7. Perform the following steps if you are setting up a new Configuration Server:

- You must update the DBMS configuration file **pg\_hba.conf** to allow the client to connect to the database.
- Issue the command `pg_ctl reload` to complete the update of the DBMS configuration file.

### Important

- The PostgreSQL driver **LIBPQ.dll** must be installed on the host where Database Server is installed.
- The **PATH** environment variable must be set to the **bin** directory of PostgreSQL.

| Set up the host=

## Procedure: Setting up the host for Genesys Administrator Extension server

### Steps

1. If Java Server JRE 6 or 7 is not already installed on the host machine where Genesys Administrator Extension will be installed, install it now by downloading it from the following website:

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>

Refer to the Oracle documentation for more information on how to install the tar.gz package.

### Important

GAX only supports the 64-bit version of Oracle Java HotSpot Server VM.

2. Set the following environment variables for your host, as follows:

- a. Linux

Insert the following lines into the **/etc/profile** file:

- export JRE\_HOME=/usr/lib/java/jre-<version of Java downloaded>/jre
- export PATH = \$PATH: /usr/lib/java/jre-<version of Java downloaded>/jre/bin

Log out and log in again to activate the new environment variables in the current session.

- b. Windows

- Create a new System Variable named JRE\_HOME and use the path that was used during installation as the value (for example, C:\Programs\Java\jre1.6.0\_23).
- Edit the **Path** variable and append C:\Programs\Java\jre1.6.0\_23\bin to the existing value.

3. Install Local Control Agent on this host. For detailed instructions, refer to the [Framework Deployment Guide](#).

| Install the GAX server on a host=

Linux

**[+] Click to show section**

## Procedure: Installing Genesys Administrator Extension server on a Linux host

### Prerequisites

- The environment variable for **JRE\_HOME** has been configured (see Step 2 of [Setting up the host for Genesys Administrator Extension server](#)).

### Steps

1. Copy the IP to the host machine.
2. Navigate to the folder to which you copied the IP, and change the permissions of the installation file by entering the following command:

```
chmod 755 install.sh
```

3. Run the installation file to extract and copy the necessary files by entering the following command:

```
./install.sh
```

### Important

When you install Genesys Administrator Extension, you might receive the following error message that indicates that installation was unsuccessful:

```
Unable to find configuration information. Either you have not used configuration wizards and the GCTISetup.ini file was not created or the file is corrupted.
```

Ignore this message; Genesys Administrator Extension was installed successfully.

4. Navigate to the folder in which you installed GAX and run the **gax\_startup.sh** file.

### Important

- The GAX installer creates a **setenv.sh** file that enables you to adjust the memory settings for GAX. The **setenv.sh** file defines the memory (RAM) settings for GAX to 1024 MB. You can change the memory setting in the **setenv.sh** file to a different value. If you enable TLS encryption, ensure that you make the following updates to the **setenv.sh** file. The **setenv.sh** file contains the following lines:

```
# Uncomment the following lines only if you are going to use TLS. Don't forget to set the correct path and password.  
#export JAVA_OPTS="$JAVA_OPTS -Djavax.net.ssl.trustStore=/path_to_jre/jre6/lib/
```

```
security/cacerts"
#export JAVA_OPTS="$JAVA_OPTS -Djavax.net.ssl.trustStorePassword=secret_password"

# This line defines the memory (RAM) settings for GAX. If you have more RAM
available for GAX, adjust both values accordingly
export JAVA_OPTS="$JAVA_OPTS -Xms1024m -Xmx1024M"

# Uncomment following line to activate psdk.logs, it's recommended to let this
option deactivated
#export JAVA_OPTS=%JAVA_OPTS%
-Dcom.genesyslab.platform.commons.log.loggerFactory=com.genesyslab.platform.commons.log.Log4JLoggerFacto
# Enable this option for SSL Debugging
#export JAVA_OPTS=%JAVA_OPTS% -Djavax.net.debug=all
```

Follow the instructions in the first line by uncommenting the indicated lines below it and setting the path and password.

- You must create a trust store and set the trust store path accordingly. See [Transport Layer Security](#) for more information.

## Windows

### [+] Click to show section

## Procedure: Install Genesys Administrator Extension server on a Windows Server host

### Prerequisites

- The environment variable for **JRE\_HOME** has been configured (see Step 2 of [Setting up the host for Genesys Administrator Extension server](#)).

### Steps

1. Copy the IP to the host machine.
2. Run the **setup.exe** installation file to extract and copy the necessary files.

If there is an existing installation of GAX on the host, the installer will display a dialog box that prompts you to confirm whether or not you want to maintain the existing installation.

3. Navigate to the folder in which you installed GAX and run the **gax\_startup.bat** file.

## Important

- The GAX installer creates a **setenv.bat** file that enables you to adjust the memory settings for GAX. The **setenv.bat** file defines the memory (RAM) settings for GAX to 1024 MB. You can change the memory setting in the **setenv.bat** file to a different value. If you enable TLS encryption, ensure that you make the following updates to the **setenv.bat** file. The **setenv.bat** file contains the following lines:

```
REM Uncomment the following lines only if you are going to use TLS. Don't forget to
set the correct path and password.
REM set JAVA_OPTS=%JAVA_OPTS% -Djavax.net.ssl.trustStore="C:\Program Files\Java\
jre6\lib\security\cacerts"
REM set JAVA_OPTS=%JAVA_OPTS% -Djavax.net.ssl.trustStorePassword=secret_password
```

Follow the instructions in the first line by uncommenting the indicated lines below it and setting the path and password.

- You must create a trust store and set the trust store path accordingly. See [Transport Layer Security](#) for more information.

| - | Deploy GAX=

## Deploy GAX (Existing Management Framework Deployment)

### [+] Click to show section

## Procedure: Deploying Genesys Administrator Extension (Existing Management Framework Deployment)

**Purpose:** To deploy GAX into an existing deployment of Management Framework.

### Prerequisites

Management Framework is deployed and configured.

### Steps

1. Connect to GAX locally by opening a supported web browser and navigating to the location of your GAX host (for example: <http://localhost:8080/gax/>).

## Important

Setup Mode is accessible only through a local connection. You cannot use Setup Mode if you connect remotely to the GAX host.

2. Select the **Username** field and enter root. By default, there is no password.
3. Click **Log In**.
4. Choose **Connect to an Existing Deployment**.
5. You must provide configuration information about the existing Management Framework deployment. This screen pre-populates with existing details about the deployment, such as:

- **Primary Configuration Server Host**
- **Port** number
- **Default Client Application Name**
- **Username**
- **Password**

If there are any errors, GAX prompts you to re-enter the configuration information.

6. Click **Next**.
7. Perform one of the following actions. If you intend to use the Pulse 8.5 plug-in with GAX, you must choose the first option.
  - Select the GAX Application object to be associated with the existing instance. The list includes all objects of type CfgApplications with a subtype of either CFGGenesysAdministratorServer or CFGGenesysGenericServer. If the associated Host object has the same host names or IP addresses as the current GAX instance, it is highlighted as **recommended**.
  - Create a new Application object. You must provide the following information:
    - **Administrator Extension Application Object Name**—Enter the name of the Application object to create.
    - **Template**—Select the application template to use.

If the Host object does not exist, it is automatically created.

8. Click **Next**.
9. GAX prompts you to enter configuration information for the GAX database. This screen pre-populates with existing details that might be stored in Configuration Server. You must provide the following configuration information:
  - **Database Server Type**
  - **Database Host**

- **Port** (numeric only)
- **Database Name**
- **Username**
- **Password**

10. Click **Next**.
11. GAX verifies the database version and creates (or updates) the database access configuration. If an error occurs, an error message displays and you can either cancel or restart the deployment process.
12. Click **Finish**.
13. GAX restarts to finish the setup operation. When it is done, GAX displays the login screen and you can login to GAX.

## Deploy GAX 8.5.000.65 or Later and Management Framework 8.5.x/8.1.x

### [+] Click to show section

### Procedure: Deploying Genesys Administrator Extension 8.5.000.65 or Later and Management Framework 8.5.x/8.1.x

**Purpose:** To deploy GAX 8.5.000.65 (or later) and Management Framework 8.5.x or 8.1.x.

#### Prerequisites

- Genesys Deployment Agent (GDA) must be installed on port 5000 on the server that will run Configuration Server and Database Server.
- The installation packages for Configuration Server and Database Server (required for Management Framework 8.1.x only) are in a location accessible to the GAX host machine.
- You are familiar with the prerequisites for deploying Management Framework. Refer to the [Management Framework documentation](#) for more information.

#### Steps

1. Connect to GAX locally by opening a supported web browser and navigating to the location of your GAX host (for example: <http://localhost:8080/gax/>).

### Important

Setup Mode is accessible only through a local connection. You cannot use Setup Mode if you connect remotely to the GAX host.

2. Select the **Username** field and enter root. By default, there is no password.
3. Click **Log In**.
4. Choose **Install a New Deployment**.
5. In the **Configuration Server Installation Package Path** field, enter the path to the Configuration Server installation package .zip file (Windows) or tar.gz file (Linux). The file must contain the **ip** and **Templates** directories.
6. Click **Next**.
7. (This step only appears if you are using an installation package for Configuration Server 8.1.x or lower.)  
In the **Database Server Installation Package Path** field, enter the path to the Database Server installation package .zip file (Windows) or tar.gz file (Linux). The file must contain the **ip** and **Templates** directories. When you are done, click **Next**.
8. In the **Configuration Server Details** section, provide the following information. Some fields are populated by default values.
  - **Installation Path on Target Host**—The installation path to which Configuration Server will be installed.
  - **Primary Configuration Server Host**—Enter the name of the Primary Configuration Server host.
  - **Port**—Enter the port number for the Primary Configuration Server.
  - **Target Host OS Type**—Select the operating system used by the target host.

### Important

Although Management Framework supports various operating systems, GAX can only deploy Configuration Server and Database Server on Windows Server 2003/2008/2012 or Red Hat Enterprise Linux 5.5/6.x. See [Prerequisites](#) for more information on operating systems that are supported by GAX.

- **Management Port**—Enter the port number for the Management Port.
9. Click **Next**.
  10. (This step only appears if you are using an installation package for Configuration Server 8.5.x or higher.)  
In the **Configuration Server License Path** field, enter the path to the Configuration Server

license file and then click **Next**.

11. (Optional) Click the **Install Backup Configuration Server** check box to install a Backup Configuration Server. You must provide the following information:
  - **Backup Configuration Server Host**—Enter the name of the Backup Configuration Server host.
  - **Port**—Enter the port number for the Backup Configuration Server.
  - **Management Port**—Enter the port number for the Backup Management Port.
12. Click **Next**.
13. (This step only appears if you are using an installation package for Configuration Server 8.1.x or earlier.)  
In the **Database Server Details** section, provide the following information. Some fields are populated by default values.
  - **Installation Path on Target Host**—The installation path to which Database Server will be installed.
  - **Port**—Enter the port number for the database.

When you are done, click **Next**.

14. In the **Configuration Server Database** section, provide the following information. Some fields are populated by default values.
  - **Database Server Type**—Select the database type to be used by GAX: Oracle, PostgreSQL, or MS SQL Server.
  - **Database Host**—Enter the name of the database host.
  - **Port**—Enter the port number for the database.
  - **Database Name**—Enter the name of the database.
  - **Username**—Enter the user name to use when accessing the database.
  - **Password**—Enter the password to use when accessing the database.

### Important

GAX uses default values for some deployment parameters. These default values are not presented to the user. If you want to override these default values, you must edit the following file in the **\conf** directory:  
**asd\_hostinfo.properties, asd\_silentini\_<IP Nick Name>.properties**

15. Click **Next**.
16. A progress indicator displays while GAX performs the deployment. If an error occurs, an error message displays and you can either cancel or restart the deployment process.

17. Click **Next**.
18. In the **Application Object Details** section, provide the following information.
  - **Administrator Extension Application Object Name**—Enter the name of the GAX Application object.
19. Click **Next**.
20. In the **Administrator Extension Database Details** section, provide the following information. Some fields are populated by default values.
  - **Database Server Type**—Select the database type to be used by the GAX database: Oracle, PostgreSQL, or MS SQL Server.
  - **Database Host**—Enter the name of the GAX database host.
  - **Port**—Enter the port number for the GAX database.
  - **Database Name**—Enter the name of the GAX database.
  - **Username**—Enter the user name to use when accessing the GAX database.
  - **Password**—Enter the password to use when accessing the GAX database.
21. Click **Next**.
22. GAX verifies the database version and creates (or updates) the database access configuration. If an error occurs, an error message displays and you can either cancel or restart the deployment process.
23. Click **Finish**.
24. GAX restarts to finish the setup operation. When it is done, GAX displays the login screen and you can login to GAX.

### Important

To complete deployment of Management Framework, you might have to install and configure [License Reporting Manager](#).

### Important

Setup Mode reads SQL script files from IPs and executes them on the target database through a JDBC connection. SQL script files should follow these rules:

1. `<Script> ::= { [<Statement>] | [<Delimiter>] | [<Comment>] }`  
A script consists of a sequence of statements or comments, with or without delimiters in between.
2. `<Comment> ::= "/*"{ <any_character> } "*/" | "//{ <any_character> } <Line Separator> | "--{ <any_character> } <EOL>`  
A single-line comment starts with "/" or "--" and ends with the line.

A multi-line comment starts with "/\*" and ends with "\*/".

3. <Delimiter > ::= "go"|"/"|";"

An instance of go or / is a strong delimiter which delimits any statements.

An instance of ; is a weak delimiter which delimits all other statements except <CreateProcedure>.

4. <Quotations> ::= '{<any\_character>}'|'{<any\_character>}'

Quotations can appear inside a statement. Any characters inside quotations are not treated as a statement, delimiter, or comment.

5. <Statement> ::= <CreateProcedure>|<SimpleStatement>

<CreateProcedure> ::= "CREATE PROCEDURE"|"CREATE OR REPLACE PROCEDURE"{<any\_character>|<Quotations>} "go"|"/"|<EOF>

<SimpleStatement> ::= "INSERT"|"UPDATE"|"DELETE"|"DROP"|"CREATE"|"ALTER"|"COMMIT"|"ROLLBACK"|"MERGE"|"TRUNCATE"{<any\_character>|<Quotations>}[<Delimiter>]

A create procedure statement must be specifically delimited by a strong delimiter.

A simple statement can be delimited by a delimiter, a comment, or another statement.

6. All keywords are case insensitive.

## Deploy GAX 8.5.000.58 or Earlier and Management Framework 8.1.x

### [+] Click to show section

#### Important

This procedure describes how to use Setup Mode to deploy GAX 8.5.000.58 (or earlier) and Management Framework 8.1.x. If you want to deploy Management Framework 8.5.x, you must use GAX 8.5.000.65 or later and refer to the section above - **Deploy GAX 8.5.000.65 or Later and Management Framework 8.5.x./8.1.x.**

## Procedure: Deploying Genesys Administrator Extension 8.5.000.58 or Earlier and Management Framework 8.1.x

**Purpose:** To deploy GAX 8.5.000.58 (or earlier) and Management Framework 8.1.x.

#### Prerequisites

- Genesys Deployment Agent (GDA) must be installed on port 5000 on the server that will run Configuration Server and Database Server.

- The installation packages for Configuration Server and Database Server are in a location accessible to the GAX host machine.
- You are familiar with the prerequisites for deploying Management Framework. Refer to the [Management Framework documentation](#) for more information.

### Steps

1. Connect to GAX locally by opening a supported web browser and navigating to the location of your GAX host (for example: `http://localhost:8080/gax/`).

#### Important

Setup Mode is accessible only through a local connection. You cannot use Setup Mode if you connect remotely to the GAX host.

2. Select the **Username** field and enter `root`. By default, there is no password.
3. Click **Log In**.
4. Choose **Install a New Deployment**.
5. In the **Installation Packages** pane, provide the following information:
  - **Configuration Server IP Path**—Enter the path to the Configuration Server installation package .zip file (Windows) or tar.gz file (Linux). The file must contain the **ip** and **Templates** directories.
  - **Database Server IP Path**—Enter the path to the Database Server installation package .zip file (Windows) or tar.gz file (Linux). The file must contain the **ip** and **Templates** directories.
6. Click **Next**.
7. In the **Configuration Server Details** section, provide the following information. Some fields are populated by default values.
  - **Installation Path on Target Host**—The installation path to which Configuration Server will be installed.
  - **Primary Configuration Server Host**—Enter the name of the Primary Configuration Server host.
  - **Port**—Enter the port number for the Primary Configuration Server.
  - **Target Host OS Type**—Select the operating system used by the target host.

#### Important

Although Management Framework supports various operating systems, GAX can only deploy Configuration Server and Database Server on Windows Server 2003/2008/2012 or Red Hat Enterprise Linux 5.5/6. See [Prerequisites](#) for more information on operating systems that are supported by GAX.

- **Management Port**—Enter the port number for the Management Port.
8. Click **Next**.
  9. (Optional) Click the **Install Backup Configuration Server** check box to install a Backup Configuration Server. You must provide the following information:
    - **Backup Configuration Server Host**—Enter the name of the Backup Configuration Server host.
    - **Port**—Enter the port number for the Backup Configuration Server.
    - **Management Port**—Enter the port number for the Backup Management Port.
  10. Click **Next**.
  11. In the **Database Server Details** section, provide the following information. Some fields are populated by default values.
    - **Installation Path on Target Host**—The installation path to which Database Server will be installed.
    - **Port**—Enter the port number for the database.
  12. Click **Next**.
  13. In the **Configuration Server Database** section, provide the following information. Some fields are populated by default values.
    - **Database Server Type**—Select the database type to be used by GAX: Oracle, PostgreSQL, or MS SQL Server.
    - **Database Host**—Enter the name of the database host.
    - **Port**—Enter the port number for the database.
    - **Database Name**—Enter the name of the database.
    - **Username**—Enter the user name to use when accessing the database.
    - **Password**—Enter the password to use when accessing the database.

### Important

GAX uses default values for some deployment parameters. These default values are not presented to the user. If you want to override these default

values, you must edit the following file in the `\conf` directory:  
**asd\_hostinfo.properties, asd\_silentini\_<IP Nick Name>.properties**

14. A progress indicator displays while GAX performs the deployment. If an error occurs, an error message displays and you can either cancel or restart the deployment process.
15. Click **Next**.
16. In the **Configuration Server Details** section, provide the following information.
  - **Administrator Extension Application Object Name**—Enter the name of the GAX Application object.
17. Click **Next**.
18. In the **Administrator Extension Database Details** section, provide the following information. Some fields are populated by default values.
  - **Database Server Type**—Select the database type to be used by the GAX database: Oracle, PostgreSQL, or MS SQL Server.
  - **Database Host**—Enter the name of the GAX database host.
  - **Port**—Enter the port number for the GAX database.
  - **Database Name**—Enter the name of the GAX database.
  - **Username**—Enter the user name to use when accessing the GAX database.
  - **Password**—Enter the password to use when accessing the GAX database.
19. Click **Next**.
20. GAX verifies the database version and creates (or updates) the database access configuration. If an error occurs, an error message displays and you can either cancel or restart the deployment process.
21. Click **Finish**.
22. GAX restarts to finish the setup operation. When it is done, GAX displays the login screen and you can login to GAX.

## End

## Important

Setup Mode reads SQL script files from IPs and executes them on the target database through a JDBC connection. SQL script files should follow these rules:

1. `<Script> ::= {[<Statement>] | [<Delimiter>] | [<Comment>]}`  
A script consists of a sequence of statements or comments, with or without delimiters in between.

2. `<Comment> ::= "/*"{ <any_character> } "*/" | "{ <any_character> } <Line Separator> | "--"{ <any_character> } <EOL>`  
A single-line comment starts with "/\*" or "--" and ends with the line.  
A multi-line comment starts with "/\*" and ends with "\*/".
3. `<Delimiter > ::= "go" | "/" | ";"`  
An instance of go or / is a strong delimiter which delimits any statements.  
An instance of ; is a weak delimiter which delimits all other statements except `<CreateProcedure>`.
4. `<Quotations> ::= '{<any_character>}' | '{<any_character>}'`  
Quotations can appear inside a statement. Any characters inside quotations are not treated as a statement, delimiter, or comment.
5. `<Statement> ::= <CreateProcedure> | <SimpleStatement>`  
`<CreateProcedure> ::= "CREATE PROCEDURE" | "CREATE OR REPLACE PROCEDURE" {<any_character> | <Quotations>} "go" | "/" | <EOF>`  
`<SimpleStatement> ::= "INSERT" | "UPDATE" | "DELETE" | "DROP" | "CREATE" | "ALTER" | "COMMIT" | "ROLLBACK" | "MERGE" | "TRUNCATE" {<any_character> | <Quotations>} [<Delimiter>]`  
A create procedure statement must be specifically delimited by a strong delimiter.  
A simple statement can be delimited by a delimiter, a comment, or another statement.
6. All keywords are case insensitive.

|< Add SCS Connection= GAX must have a connection to Solution Control Server (SCS) for the **System Dashboard** to function.

## Procedure: Adding a Connection to SCS from GAX

### Prerequisites

**Solution Control Server** is installed and configured.

### Steps

1. In GAX, go to Configuration Manager.
2. Hover over the **Environment** icon and select **Applications** in the pop-up list.
3. In the **Applications** list, open the Application object for GAX.
4. In the GAX Application object details window, click the **Connections** tab.
5. Click **Add**.
6. In the pop-up window, enter information about the connection to SCS. Refer to the procedure "Creating Application Objects" on the **Applications** page for more information.

7. Click **OK**.
8. Click **Save**.
9. Restart GAX.

</multistep>

## Deploying GAX via the Command Line

You can also deploy GAX (with or without Management Framework) via the command line by using a setup file to provide deployment instructions. This feature is useful for situations in which you cannot access the GAX host via a remote desktop connection.

Choose a procedure below.

### **[+] Deploy GAX into existing Management Framework deployment**

#### Procedure: Deploying GAX via the Command Line (Existing Management Framework Deployment)

**Purpose:** To deploy GAX via the command line into an existing Management Framework deployment.

##### Prerequisites

You have completed the following procedures:

- [Set up the database](#)
- [Set up the host](#)
- [Install the GAX server on a host](#)

##### Steps

1. Create a setup file to provide deployment instructions for the command-line argument. The setup file must contain the following content:

```
Configuration_Server_Host=  
Configuration_Server_Port=
```

```
Default_Client_Application_Name=  
Configuration_Server_Username=  
Configuration_Server_Password=  
Application_Object_Name=  
Database_Server_Type=  
Database_Host=  
Database_Port=  
Database_Name=  
Database_Username=  
Database_Password=
```

The following is an example of a completed setup file:

```
Configuration_Server_Host=192.168.0.1  
Configuration_Server_Port=2020  
Default_Client_Application_Name=default  
Configuration_Server_Username=default  
Configuration_Server_Password=password  
Application_Object_Name=GAX_APP  
Database_Server_Type=Oracle  
Database_Host=135.17.176.99  
Database_Port=1521  
Database_Name=GAX_DB  
Database_Username=gax_admin  
Database_Password=password
```

### Important

- You must provide a valid value for each parameter in the setup file.
- For Database\_Server\_Type only the following values are valid: oracle, mssql, or postgres.

2. Enter the following command in a command-line window, replacing `<setup_file_name>` with the name of the file you created in Step 1:  
`java -jar gax.war -setup gax <setup_file_name>`

## [+] Deploy GAX and Management Framework

### Important

You can only deploy Management Framework 8.5.x if you are using GAX 8.5.000.65 or later. GAX 8.5.000.58 or earlier can only deploy Management Framework 8.1.x.

## Procedure: Deploying GAX and Management Framework via the Command Line

**Purpose:** To deploy GAX and Management Framework via the command line.

### Prerequisites

You have completed the following procedures:

- [Set up the database](#)
- [Set up the host](#)
- [Install the GAX server on a host](#)
- You are familiar with the prerequisites for deploying Management Framework. Refer to the [Management Framework documentation](#) for more information.

### Steps

1. Create a setup file to provide deployment instructions for the command-line argument. The setup file must contain the following content:

```
#MF settings
Configuration_Server_IP=
Database_Server_IP=(Use this line only for Management Framework 8.1.x or lower)
MF_Installation_Path=
Configuration_Server_Licence_File=(Use this line only for Management Framework
8.5.x or higher)
Configuration_Server_Host=
Configuration_Server_Port=
Configuration_Server_OS=
Configuration_Server_OS_Bit=
Configuration_Server_Management_Port=
Database_Server_Port=(Use this line only for Management Framework 8.1.x or lower)
Install_Backup_Configuration_Server=
Backup_Configuration_Server_Host=(Optional)
Backup_Configuration_Server_Port=(Optional)
Backup_Configuration_Server_Management_Port=(Optional)
Configuration_Server_Database_Type=
Configuration_Server_Database_Host=
Configuration_Server_Database_Port=
Configuration_Server_Database_Name=
Configuration_Server_Database_Username=
Configuration_Server_Database_Password=

#GAX settings
Default_Client_Application_Name=
Configuration_Server_Username=
Configuration_Server_Password=
Application_Object_Name=
Database_Server_Type=
```

```
Database_Host=  
Database_Port=  
Database_Name=  
Database_Username=  
Database_Password=
```

The following are examples of completed setup files.

### Management Framework 8.1.x (Windows)

```
#MF settings  
Configuration_Server_IP=C:\\GAX\\CS64mt.zip  
Database_Server_IP=C:\\GAX\\DB64.zip  
MF_Installation_Path=C:\\genesys\\GCTI\\  
Configuration_Server_Host=cs_primary_host  
Configuration_Server_Port=2020  
Configuration_Server_OS=CFGWindowsServer2008  
Configuration_Server_OS_Bit=64  
Configuration_Server_Management_Port=2021  
Database_Server_Port=4040  
Install_Backup_Configuration_Server=true  
Backup_Configuration_Server_Host=cs_backup_host  
Backup_Configuration_Server_Port=7020  
Backup_Configuration_Server_Management_Port=7021  
Configuration_Server_Database_Type=Oracle  
Configuration_Server_Database_Host=cs_db_host  
Configuration_Server_Database_Port=1521  
Configuration_Server_Database_Name=cs_db  
Configuration_Server_Database_Username=default  
Configuration_Server_Database_Password=password  
  
#GAX settings  
Default_Client_Application_Name=default  
Configuration_Server_Username=default  
Configuration_Server_Password=password  
Application_Object_Name=GAX_8.5  
Database_Server_Type=Oracle  
Database_Host=gaxdb_host  
Database_Port=1521  
Database_Name=gaxdb  
Database_Username=default  
Database_Password=password
```

### Management Framework 8.5.x (Linux)

```
#MF settings  
Configuration_Server_IP=/opt/genesys/cs850linux64.tar.gz  
MF_Installation_Path=/home/genesys/GCTI/  
Configuration_Server_Licence_File=/opt/genesys/license.dat  
Configuration_Server_Host=cs_primary_host  
Configuration_Server_Port=2020  
Configuration_Server_OS=CFGRedHatLinux  
Configuration_Server_OS_Bit=64  
Configuration_Server_Management_Port=2021  
Install_Backup_Configuration_Server=true  
Backup_Configuration_Server_Host=cs_backup_host
```

```
Backup_Configuration_Server_Port=7020
Backup_Configuration_Server_Management_Port=7021
Configuration_Server_Database_Type=Oracle
Configuration_Server_Database_Host=cs_db_host
Configuration_Server_Database_Port=1521
Configuration_Server_Database_Name=cs_db
Configuration_Server_Database_Username=default
Configuration_Server_Database_Password=password

#GAX settings
Default_Client_Application_Name=default
Configuration_Server_Username=default
Configuration_Server_Password=password
Application_Object_Name=GAX_8.5
Database_Server_Type=Oracle
Database_Host=gaxdb_host
Database_Port=1521
Database_Name=gaxdb
Database_Username=default
Database_Password=password
```

### Important

- You must provide a valid value for each parameter in the setup file, unless it is marked as optional.
- For Database\_Server\_Type, only the following values are valid: oracle, mssql, or postgres.
- For Configuration\_Server\_OS, only the following values are valid: CFGRedHatLinux, CFGWinNT, CFGWindows2000, CFGWindowsServer2003, CFGWindowsServer2008. If you are using Windows Server 2012, you must use the CFGWindowsServer2008 value to prevent compatibility issues.
- For Configuration\_Server\_OS\_Bit, only the following values are valid: 32 or 64.
- Windows file paths should contain escaped backslashes. For example:  
C:\\GAX\\CS85mt.zip.
- You must ensure that there are no trailing whitespace characters at the end of each parameter value line.

2. Enter the following command in a command-line window, replacing `<setup_file_name>` with the name of the file you created in Step 1:  
`java -jar gax.war -setup mf-install <setup_file_name>`