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# Genesys Administrator Extension Help

Applications

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## Contents

- 1 Applications
  - 1.1 Viewing Applications
  - 1.2 Working with Applications
  - 1.3 Configuring Logging
  - 1.4 Starting and Stopping Applications
  - 1.5 Switch Mode (Manual Switchover)

# Applications

Applications are the various Genesys software programs that serve the contact center. There are two types of applications: graphical user interface (GUI) applications and daemon applications. Most daemon applications are servers to other applications.

You must register each instance of a daemon application separately. Configuration Server does not allow two daemon applications with the same name to be connected at the same time. By contrast, one object in the Configuration Database can represent any number of GUI applications of the same type and configuration parameters.

## Viewing Applications

The **Applications** list shows the applications that are in your environment. It is sorted in a hierarchy by Tenants, configuration units, sites, and folders. To view objects by a particular hierarchy, select the hierarchy type in the drop-down menu above the list.

### Important

Disabled Applications are grayed out in the list.

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

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

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

You can sort the items in the list by clicking a column head. Clicking a column head a second time reverses the sort order. You can add or remove columns by clicking **Select Columns**. To select or de-select multiple objects at once, click **Select**.

## Working with Applications

To create a new Application object, click **New**. To view or edit details of an existing object, click the name of the object, or click the check box beside an object and click **Edit**.

To delete one or more objects, click the check box beside the object(s) in the list and click **Delete**. You can also delete individual objects by clicking on the object and then clicking **Delete**.

Otherwise, click **More** to perform the following tasks:

- **Refresh Table**—Refresh the display.
- **Clone**—Copy an Application.
- **Move To**—Move an Application to another [hierarchical structure](#).
- **Enable** or **Disable** Applications.
- Create a folder, configuration unit, or site. See [Object Hierarchy](#) for more information.
- **Configure Logging**
- **Start** and **Stop/Force Stop** an Application.
- **Switch Mode**—Manually switch over a backup Application to primary mode.

Click the name of an Application to view additional information about the object. You can also set [permissions, options and application options](#), and view [dependencies](#).

## Creating Application Objects

To create an Application, do the following:

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1. Click **New**.
2. Enter the following information. For some fields, you can either enter the name of a value or click **Browse** to select a value from a list:
  - **Name**—The name of the Application. You must specify a value for this property, and that value must be unique within the Configuration Database. Genesys does not recommend that you use symbols (including single and double quotation marks) in Application names; doing so may cause Applications to malfunction.
  - **Template**—The Application Template on which this Application is based. This value is set automatically when you select the Application Template.
  - **Type**—The type of the Application. This value is set automatically, based on the selected Application Template.
  - **Component Type**—Specifies the detailed purpose of this Application object within the configuration. Leave this field at its default value (Unknown) unless Application-specific documentation directs you to enter a specific value. This field is only displayed for daemon Applications.
  - **Version**—The version of the Application. This value is set automatically, based on the selected Application Template version.
  - **Is Application Server**—This field is checked for all daemon Applications and not checked for all GUI Applications. It is set automatically, based on the **Type** field.
  - **Tenant**—In a multi-Tenant environment, the Tenant to which this object belongs. This value is automatically set to the Tenant that was specified in the **Tenant Directory** field in the object list.
  - **State Enabled**—If selected, indicates that the object is in regular operating condition and can be used without any restrictions.

The following fields apply only to daemon Applications, not to GUI Applications:

- **Working Directory**—The full path to the directory where this Application is installed. This field is mandatory. When creating a new Application, Genesys recommends inserting a period (.). The path will be filled in automatically when the new Application is installed and connects to Configuration Server.
- **Command Line**—The command line that is used to start this Application, specifying the name of the Application's executable file. This field is mandatory. When creating a new Application, Genesys recommends inserting a period (.). The command line will be filled in automatically when the new Application is installed and connects to Configuration Server.
- **Command Line Arguments**—Additional command-line parameters that are used to start this Application. When creating a new Application, Genesys recommends leaving this field blank. Any arguments will be filled in automatically when the new Application is installed and connects to Configuration Server.
- **Startup Timeout**—The time interval, in seconds, during which the Management Layer expects this Application to start. If the Application has been configured with the autostart configuration option set to true, this is also the amount of time that Solution Control Server should wait to start this Application after initialization or after a system reboot. This field is mandatory.
- **Shutdown Timeout**—The time interval, in seconds, during which the Management Layer expects this Application to shut down. This field is mandatory.
- **Auto-Restart**—Indicates whether the Management Layer automatically restarts the Application after it shuts down unexpectedly.
- **Host**—The host computer on which the Application is running.

### Important

To support specific HA configurations, more than one server can be registered on the same port within the same host.

Otherwise, do not assign the port number to any other server on the same host.

- **Backup Server**—The server that Client Applications contact if the connection to the primary server fails. You cannot associate one backup server with more than one primary server. You must use the same Application Template for the backup server that you use for the primary server, and you must associate the servers with the same user account.

### Important

When you designate an Application as a backup server for another server, the Application's Connections, Tenants, and Switch (for T-Server Applications) are automatically changed to match the corresponding values for the primary server. As long as this Application is associated with the primary server, its Connections are treated as read-only, and they are changed only when you apply changes to the Connections of the primary server.

- **Redundancy Type**—The type of redundancy with which this Application is running.
- **Timeout**—The amount of time, in seconds, that the client Application waits between reconnection attempts after a connection failure with the server.
- **Attempts**—The number of attempts to reconnect to this server before trying to connect to the

backup server. This value must be 1 or higher. This property is used only if you specify a Backup Server for this server.

### Important

Setting this parameter to any value other than **1** may not take effect for some types of Applications.

- **Login as SYSTEM**—If checked, indicates that this Application logs into Configuration Server on behalf of the SYSTEM account.
- **Login As Account**—Identifies the account that applications must use to log in to Configuration Server. If **Login as SYSTEM** is checked, this field is disabled. For Configuration Server type applications, this field defaults to `Environment\default`.

### Important

If you are configuring Configuration Server Proxy, Genesys strongly recommends that you use the default value (`Environment\default`).

- **Certificate**—The security certificate value. In Windows, select the certificate value from the list of installed certificates. In UNIX, enter the full path to the `<serial_#>_<host_name>_cert.pem` file.
- **Certificate Description**—An optional description of the Certificate.
- **Certificate Key**—The full path to the `<serial_#>_<host_name>_priv_key.pem` file of the security certificate key. This field is used only if Genesys Security is deployed on UNIX; otherwise this field is empty.
- **Trusted CA**—The full path to the `ca_cert.pem` file of the CA that issued the default security certificate. This field is used only if Genesys Security is deployed on UNIX; otherwise this field is empty.

### Important

Refer to the [Genesys Security Deployment Guide](#) for more information about deploying Genesys TLS Security.

3. The **Connections** tab lists the connections that this Application has to other Applications. Click **Add** to add a connection.
4. Enter the following information in the pop-up window that displays on your screen:
  - **Server**—The server application that this application connects to as a client when it starts.
  - **Port ID**—The port of the server to which the application connects. If you want to use a secure connection, be sure to select a secure port.
  - **Connection Protocol**—The name of the connection control protocol. Select one of the following:
    - **Simple**—A simple TCP connection between Genesys components.
    - **ADDP**—Advanced Disconnect Detection Protocol (ADDP) between Genesys components. Refer to

the *Framework Deployment Guide* for more information about ADDP.

### Important

Set the ADDP protocol between Local Control Agent and Solution Control Server in the **Options** tab of the Host object.

- **Local Timeout**—This value is required only if you specified **addp** in **Connection Protocol**. This value specifies the heartbeat polling interval, measured in seconds, on a client side. This indicates how often the client application sends polling signals to the server application. To enable this functionality, specify any integer as the value.

### Warning

To avoid false disconnect states that might occur because of delays in the data network, Genesys recommends that you set the ADDP timeouts to values greater than 10 seconds.

- **Remote Timeout**—This value is required only if you specified **addp** in **Connection Protocol**. This value specifies the heartbeat polling interval measured, in seconds, on a server side. This indicates how often the server application sends polling signals to the client application. To enable this functionality, specify any integer as the value.

### Warning

To avoid false disconnect states that might occur because of delays in the data network, Genesys recommends that you set the ADDP timeouts to values greater than 10 seconds.

- **Trace Mode**—The connection trace mode used between a server and its client, as follows:
  - **Trace Is Turned Off**—If you do not want either the client or the server application to print ADDP-related messages in its log.
  - **Trace On Client Side**—If you want the client application to print ADDP-related messages in its log.
  - **Trace On Server Side**—If you want the server application to print ADDP-related messages in its log.
  - **Trace On Both Sides**—If you want both the client and server applications to print ADDP-related messages in their log.
- **Connection Mode**—Specifies whether this port is secured or not by Genesys Security using the TLS protocol. This field is disabled if the client does not use Genesys Security.
- **Transport Protocol Parameters**—Any text, usually **key=value** pairs, separated by a semicolon (;). This property is application-specific. Refer to the documentation for the particular application to determine the appropriate values for this field, if any.
- **Application Parameters**—Any text, usually **key=value** pairs, separated by a semicolon (;). This property is application-specific. Refer to the documentation for the particular application to determine the appropriate values for this field, if any.

- Click **Apply** to save the information in the **Connections** tab.
- The **Ports** tab lists communication ports used by the clients of an application to connect to a server. To support specific high-availability configurations, more than one server can be registered on the same port within the same host. Otherwise, do not assign the port number to any other server on the same host. Click **Add** to add a connection.
- Enter the following information in the pop-up window that displays on your screen:
  - **Port ID**—The identifier of the port.
  - **Communication Port**—The port associated with the specified port ID.
  - **Connection Protocol**—The protocol used for the connection.
  - **HA Sync**—If selected, an HA backup server will use this port to establish a connection to the primary server.
  - **Listening Mode**—The listening mode configured for this port
  - **Certificate**—The security certificate value. In Windows, select the certificate value from the list of installed certificates. In UNIX, enter the full path to the `<serial_#>_<host_name>_cert.pem` file.
  - **Description**—An optional description of the Certificate.
  - **Certificate Key**—The full path to the `<serial_#>_<host_name>_priv_key.pem` file of the security certificate key. This field is used only if Genesys Security is deployed on UNIX; otherwise this field is empty.
  - **Trusted CA**—The full path to the `ca_cert.pem` file of the CA that issued the default security certificate. This field is used only if Genesys Security is deployed on UNIX; otherwise this field is empty.

### Important

Refer to the [Genesys Security Deployment Guide](#) for more information about deploying Genesys TLS Security.

- **Transport Parameters**—Any text, usually **key=value** pairs, separated by a semicolon (;). This property is application-specific. Refer to the documentation for the particular application to determine the appropriate values for this field, if any.
  - **Application Parameters**—Any text, usually **key=value** pairs, separated by a semicolon (;). This property is application-specific. Refer to the documentation for the particular application to determine the appropriate values for this field, if any.
- Click **Apply** to save the information in the **Ports** tab.
  - The **Tenants** tab functional meaning only in a multi-Tenant environment. It specifies a list of Tenants that this application serves. The information specified in this list does not restrict the access privileges of the daemon applications with respect to the configuration data. Click **Add** to add a Tenant to this Application object.

### Important

T-Server and High Availability (HA) Proxy applications do not display the Tenant property. A T-Server can serve only one Tenant, which is specified in the T-Server's **General** properties. An HA Proxy can serve only the same Tenant as the corresponding T-Server, and this Tenant is also specified in the HA Proxy's **General** properties.

- Click **Save**.

## Configuring Logging

To configure logging, do the following:

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1. In the **Applications** list, select one or more Applications.
2. Click **More** and select **Configure Logging**.
3. In the **Configuration of Logging** window, set the following options:
  - The Applications that you selected from the **Applications** list appears in the **Applications** section. You can select or de-select Applications to include in this procedure.
  - In the **Log Level** section, select one of the following options:
    - **All**—All events from the **Trace**, **Interaction**, and **Standard** log levels are logged.
    - **Trace**—Generates all log events from the **Trace**, **Interaction**, and **Standard** levels. This setting might adversely affect application performance. Set this level only when you are testing new interaction-processing functions or scenarios.
    - **Interaction**—Generates all log events of **Interaction** and **Standard** levels. Set this level only when you are testing events on a particular interaction.

### Important

Interaction-level records contain the Interaction ID attribute that helps to search for log events that are generated by various applications but related to the same interaction.

### Warning

Using the Interaction level generates a higher number of logging events on the network, which might adversely affect the performance of the DBMS, Message Servers, and interaction-processing components.

- **Standard**—Genesys recommends you permanently enable only a Standard level of logging during the operation of Solutions in regular production mode. This level reports events for significant problems and normal operations of in-service Solutions. An event is reported at the Standard level if it satisfies one of these criteria:

- Indicates that an attempt to perform any external operation has failed
  - Indicates that the latest attempt to perform an external operation that previously failed has succeeded
  - Indicates detection of a condition that has a negative impact on operations, actual or projected
  - Indicates that a previously detected condition, which had a negative impact on operations, no longer exists
  - Indicates a security violation of any kind
  - Indicates a high-level data exchange that cannot be recognized or does not follow the expected logical sequence
  - Indicates inability to process an external request
  - Indicates successful completion of a logical step in an initialization process
  - Indicates a transition of an Application from one operational mode to another
  - Indicates that the value of a parameter associated with a configurable threshold has exceeded that threshold
  - Indicates that the value of a parameter associated with a configurable threshold that earlier exceeded the threshold has returned to its normal range.
- **None**—No logging is performed.
4. In the **Log Outputs Adjustment** section, you can fine-tune the logging level for the following output types: **Network Log Server**, **Plain Text File**, and **Console**.
  5. Perform one of the the following:
    - If you selected **Network Log Server** in the previous step, go to the **Message Server** section and select the Message Server to receive logs.
    - If you selected **Plain Text File** in the previous step, go to the **Log File Name** section and specify the log file name to receive logs. You can also specify the following:
      - **Create Segment**—If checked, segment the log file into chunks specified by the **Segment Size (MB)** field.
      - **Segment Size (MB)**—If **Create Segment** is checked, specify a segment size for the log file, in megabytes.
      - **Segment Expiration**—If checked, segments are deleted after a maximum number of segments is reached, as defined by **Maximum Segments**.
      - **Maximum Segments**—If **Segment Expiration** is checked, specify how many segments to retain before segments beyond this limit are removed.
  6. Click **OK**.

## Starting and Stopping Applications

The status of each Application object is displayed on the [System Dashboard](#). Starting in release 8.5.240, the status is also displayed in the list of Applications in Configuration Manager. Any

Application can also be started or stopped from this list.

Starting and stopping an Application is generally the same as doing it in the System Dashboard. Basically, you:

1. Select an Application in the list.
2. Open the **More** menu.
3. Select the appropriate start, stop, or switchover action. The options available to you in the menu will depend on the current status of the Application.
4. Confirm your selection.

Genesys Administrator Extension notifies Solution Control Server, which uses Local Control Agent to remotely execute the operation on the Application.

You must have Execute permission and the appropriate Role privileges to start and stop an Application.

### Important

- You cannot start or stop a Database Access Point Application.
- Applications with a status of NA are container objects, such as Folders or Configuration Units, or are disabled. You cannot start or stop them.

## Starting Applications

You can start an Application only if its current status is Stopped.

### Important

- Application startup through Genesys Administrator Extension does not necessarily mean that the Application immediately starts performing its function. Applications are components of higher-level structures called Solutions, and most of them function normally only as part of the Solutions to which they belong. Genesys recommends that you activate single Applications only for maintenance purposes or during online upgrades. In normal production mode, always start a complete Solution.
- An Application that you installed as a Service must be started only as a Service.

To start an Application from the Application list, do the following:

### [+] Show steps

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1. Select the Application that you want to start.
2. Open the **More** menu, and select **Start**.

Application startup might take some time, depending on:

- The amount of configuration data the Application must read from the Configuration Database.
- The amount of time it takes to check data integrity and completeness.
- The number of network connections the Application must set up to other system resources.

While an Application is being initialized, its status changes from Stopped to Pending. When the Application starts, its status changes from Pending to Running. In some scenarios, an Application might depend on internal and/or external components to perform their functions. In this case, the Application status might change as follows:

- From Stopped to Pending to Initializing and, possibly, to Service Unavailable.
- From either Initializing or Service Unavailable to Started only after all the internal and external components are ready.

Genesys Administrator reports the successful start of an Application only if the Application has reported either Started or Service Unavailable status within the configured timeout period.

### Tip

You can also stop an Application by clicking its status. For example, if an Application has a status of **Started** and you click its status, it attempts to stop.

## Stopping Applications Gracefully

### Warning

Stopping an Application can cause the stoppage of some or all of the running Solutions to which the Application belongs.

This action is similar to the **Graceful Stop** command in Genesys Administrator. When you stop an Application, the Application stops accepting new requests and finishes processing the requests in its queue. If you are not sure if an Application supports graceful shutdown, you can use the configuration option **suspending-wait-timeout** to configure a timeout. This will ensure that the Application shuts down gracefully if it supports graceful shutdown; otherwise, it will be stopped ungracefully. Refer to the *Framework Configuration Options Reference Manual* for more information about this configuration option.

You can stop an Application only if its current status is Started, Service Unavailable, or Pending. You cannot stop an Application gracefully if its status is Suspending or Suspended.:

To gracefully stop an Application from the Application list, do the following:

### [+] Show steps

1. Select the Application that you want to stop.
2. Open the **More** menu, and select **Stop**.

#### Tip

You can also stop an Application by clicking its status. For example, if an Application has a status of **Started** and you click its status, it attempts to stop.

## Stopping Applications Immediately (Force Stop)

#### Warning

Stopping an Application can cause the stoppage of some or all of the running Solutions to which the Application belongs.

When you use Force Stop to stop an Application, the Application immediately stops processing all requests, both current and new. You can only stop an Application if its current status is Started, Service Unavailable, Pending, Suspending, or Suspended.

To stop an Application in the Application list using Force Stop, do the following:

### [+] Show steps

1. Select the Application that you want to stop forcefully.
2. Open the **More** menu, and select **Force Stop**.

#### Tip

You can also start and stop applications by clicking on the status name in the Applications tab. For example, if an application has a status of **Started** and you click the status name, the application attempts to stop. Likewise, if an application has a status of **Stopped** and you click the status name, the application attempts to start.

## Switch Mode (Manual Switchover)

Switch mode switches an Application configured in an HA pair, and running in backup mode, to primary mode. This forces the corresponding primary Application to run in backup mode. This option is disabled if the selected Application is not configured as the primary Application in an HA pair.

To perform a manual switchover, you must have an appropriate license for the Management Layer to perform the switchover. If no license is present, this option is disabled.

Manual switchover is not available for Applications of the following types:

- Configuration Server
- Database Access Point
- Solution Control Server

To manually switch over a backup HA Application in an HA pair to run in primary mode, do the following:

### **[+] Show steps**

1. Select the backup Application that you want to switch to primary mode.
2. Open the **More** menu, and select **Switch Mode**.