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# Deployment Guide

Installing the Genesys Web Engagement Server

5/9/2025

# Installing the Genesys Web Engagement Server

The 8.5 release of Genesys Web Engagement incorporates **two major changes** in the server architecture:

- The Web Engagement Frontend Server and Backend Server have been consolidated into a single Web Engagement Server.
- In order to simplify the configuration process, **you must configure a Web Engagement Cluster application object**, even if you are only using a single node.

Each of these changes enhances the performance and the simplicity of Web Engagement.

## Important

Before using Genesys Web Engagement, you must either **create** and **deploy** your own Web Engagement application or deploy the provided sample application. Otherwise, the product will not work.

After Genesys Web Engagement is ready to use, but before you use it, Genesys recommends that you verify the status of your **Cassandra cluster** and your **Elasticsearch cluster**.

## About the Web Engagement Cluster

Genesys Web Engagement is built on the principles of N+1 architecture. This means that:

- The cluster combines 1 or more nodes. In other words, **you must create and configure at least one node in order to use Web Engagement**. And every time you **add another node**, you need to create and configure it using the same steps you used to **create** and **configure** the first one.
- All nodes are treated as equivalent to each other, so that almost all of the configuration is defined in the cluster application, while the nodes only contain the options required to connect to a particular host and their cluster.
- All server connections, such as Interaction Server and Chat Server, are defined for the cluster.  
**Note:** Web Engagement supports a connection to the **Interaction Server Proxy** as an alternative to a direct connection to Interaction Server.
- Connections to external clusters, such as a cluster of Chat Servers, must be configured in the cluster application, rather than adding connections to particular nodes. In other words, if you add nodes to the cluster, you don't have to reconfigure the existing nodes and cluster, whether you are migrating from one node to two nodes, or adding a thousand nodes to the system.

These features make it easy to maintain your cluster configuration and help you avoid faulty

configuration scenarios.

## Deploying Web Engagement

To deploy Web Engagement, follow these steps:

1. [Importing the Web Engagement Cluster Template](#)
2. [Creating the Cluster Application](#)
3. [Configuring the Cluster Application](#)
4. [Configuring a Connection to a Cluster of Chat Servers \(Optional\)](#)
5. [Importing the Web Engagement Server Template](#)
6. [Creating a Node Application](#)
7. [Configuring a Node Application](#)
8. [Adding Nodes to a Cluster](#)
9. [Installing the Web Engagement Server](#)
10. [Configuring alarms](#)

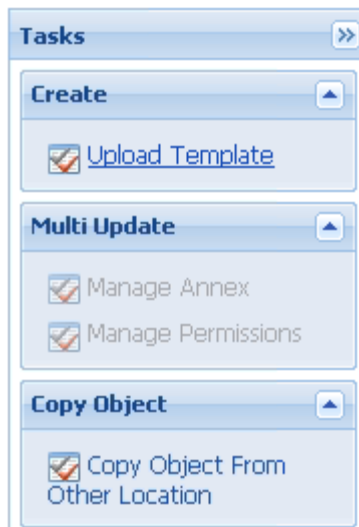
**Note:** For more information on how to work with templates and application objects in Genesys Administrator, consult [Generic Configuration Procedures](#).

## Importing the Web Engagement Cluster Template

**Note:** For more information on how to work with templates in Genesys Administrator, consult [Generic Configuration Procedures](#).

### Start

1. Open Genesys Administrator and navigate to **Provisioning > Environment > Application Templates**.
2. In the **Tasks** panel, click **Upload Template**.



Upload Template link in the Tasks panel

3. In the **Click 'Add' and choose application template (APD) file to import** window, click **Add**.
4. Browse to the **Web\_Engagement\_Cluster.apd** file. The **New Application Template** panel opens.
5. Click **Save & Close**.

**End**

## Creating the Cluster Application

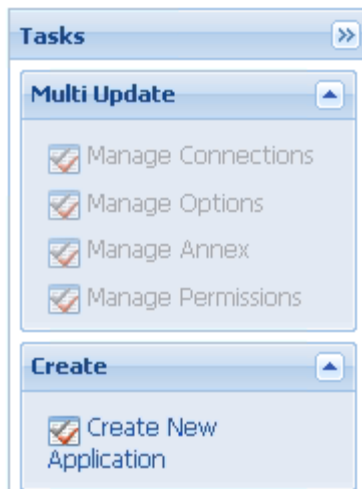
**Note:** For more information on how to work with application objects in Genesys Administrator, consult [Generic Configuration Procedures](#).

### Prerequisites

- You completed [Importing the Web Engagement Cluster Template](#).

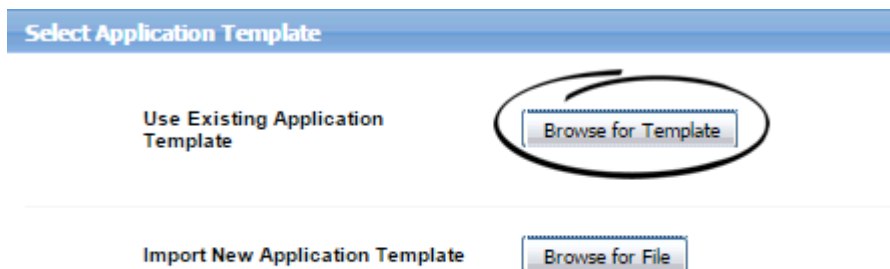
### Start

1. Open Genesys Administrator and navigate to **Provisioning > Environment > Applications**.
2. In the **Tasks** panel, click **Create New Application**.



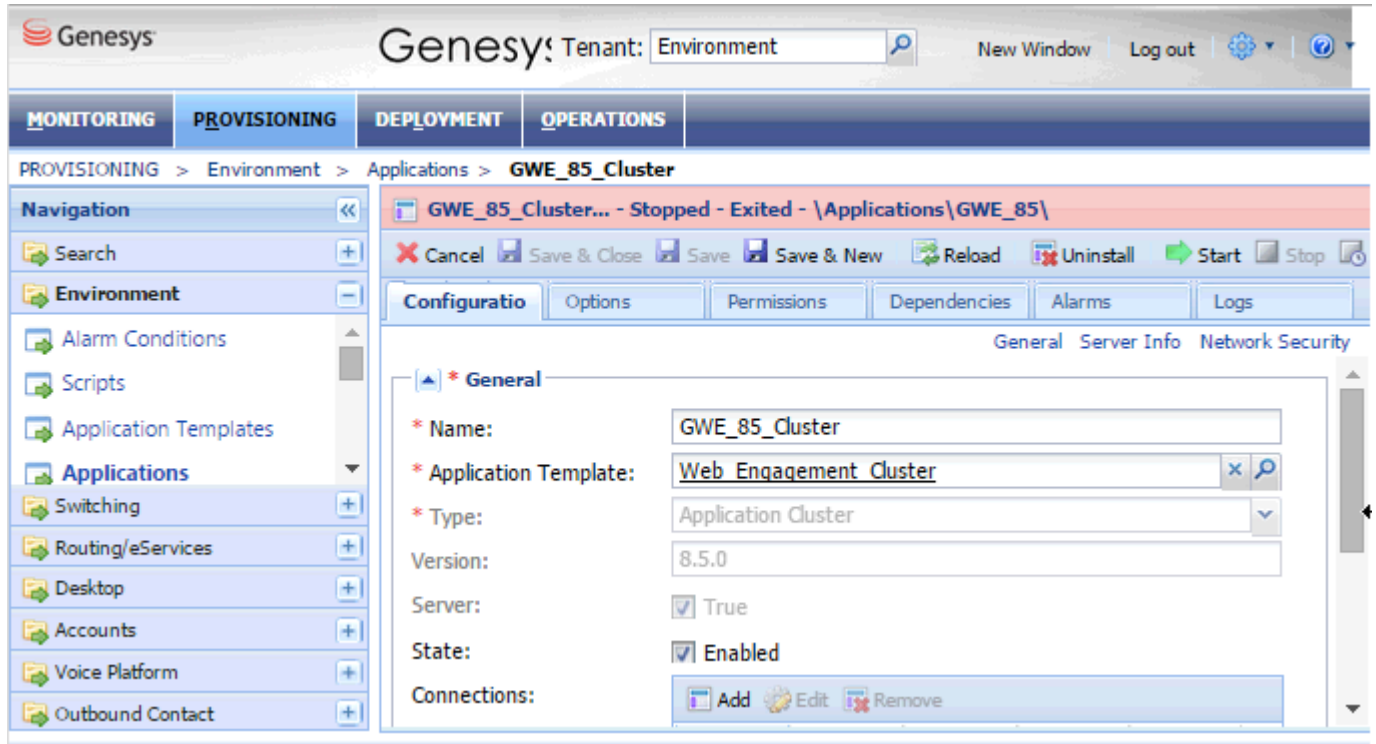
Create New Application link.

3. In the **Select Application Template** panel, click **Browse for Template**.



Browse for Template.

4. Select the Web Engagement Cluster template that you imported in **Importing the Web Engagement Cluster Template**. Click **OK**.
5. The template is added to the **Select Application Template** panel. Click **Next**.
6. In the **Select Metadata file** panel, click **Browse**, then click **Add**, and then select the **Web\_Engagement\_Cluster.xml** file. Click **Open**.
7. The metadata file is added to the **Select Metadata file** panel. Click **Next**.
8. In the **Specify Application parameters** tab:
  - Enter a name for your application. For instance, GWE\_85\_Cluster.
  - Make sure that **State** is enabled.
  - Select the **Host** on which the Web Engagement Cluster will reside.
  - Click **Create**.
9. The **Results** panel opens.
10. Enable **Opens the Application details form after clicking 'Finish'** and click **Finish**. The Web Engagement Cluster application form opens and you can start configuring the Web Engagement Cluster application.



Web Engagement Cluster app opened in Genesys Administrator.

**End**

## Configuring the Cluster Application

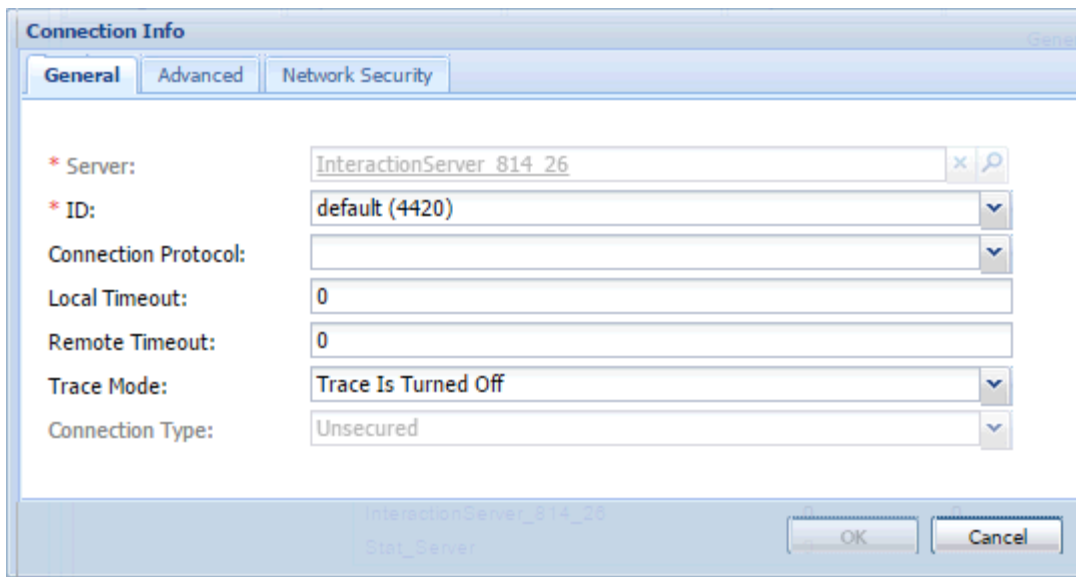
**Note:** For more information on how to work with application objects in Genesys Administrator, consult [Generic Configuration Procedures](#).

### Prerequisites

- You completed [Creating the Cluster Application](#).

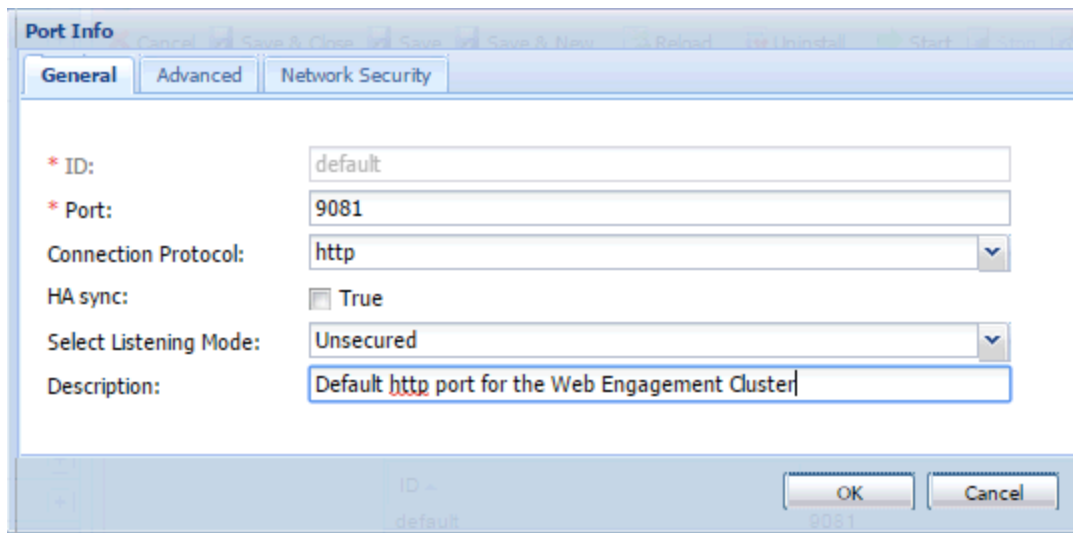
### Start

1. If your Cluster application form is not open in Genesys Administrator, navigate to **Provisioning > Environment > Applications**. Select the application defined for the Web Engagement Cluster and click **Edit...**
2. In the **Connections** section of the **Configuration** tab, click **Add**. The **Browse for applications** panel opens. Select the Genesys application defined for **Interaction Server**, then click **OK**.  
**Note:** Web Engagement supports a connection to the [Interaction Server Proxy](#) as an alternative to a direct connection to Interaction Server.



The port ID is set to the default port.

3. Repeat the previous step for **Stat Server**. Optionally, you can also add a connection to Message Server (to apply the **network logging option**).
4. Configure a connection to the Chat Server or to a cluster of Chat Servers. If you are using a single Chat Server, you must set your port ID to `webapi` when specifying your connection to Chat Server. For information on how to connect a cluster of Chat Servers, see [Configuring a Connection to a Cluster of Chat Servers \(Optional\)](#).
5. Expand the **Server Info** pane.
6. In the Tenant section, click **Add** and select your tenant. For instance, Environment. Click **OK**.
7. If your **Host** is not defined, click the lookup icon to browse to the hostname of your application.
8. In the Listening Ports section, create the default port by clicking **Add**. The **Port Info** dialog opens.  
**Note:** You must specify the default port.
  - Enter the **Port**. For instance, 9081.
  - Choose `http` for the **Connection Protocol**.
  - Click **OK**. The HTTP port with the default identifier appears in the list of **Listening ports**.



Default HTTP port

9. Create the port with the server/data/rules/deploy identifier by clicking **Add**.
  - Enter server/data/rules/deploy for the ID.
  - Enter the same port value as you did for the default port. For instance, 9081.
  - Select http for the **Connection Protocol**.
  - Click **OK**. The HTTP port with server/data/rules/deploy ID appears in the list of Listening ports.
10. Optionally, you can add a secure listening port for authenticated users, secured connections, and secure chat. Click **Add**. The **Port Info** dialog opens.
  - Enter https for the ID field. This specific ID is required in GWE 8.5.
  - Enter the **Port**. For instance, 9443.
  - Enter https for the **Connection Protocol**.
  - Choose Secured for the **Listening Mode**.
  - Click **OK**.





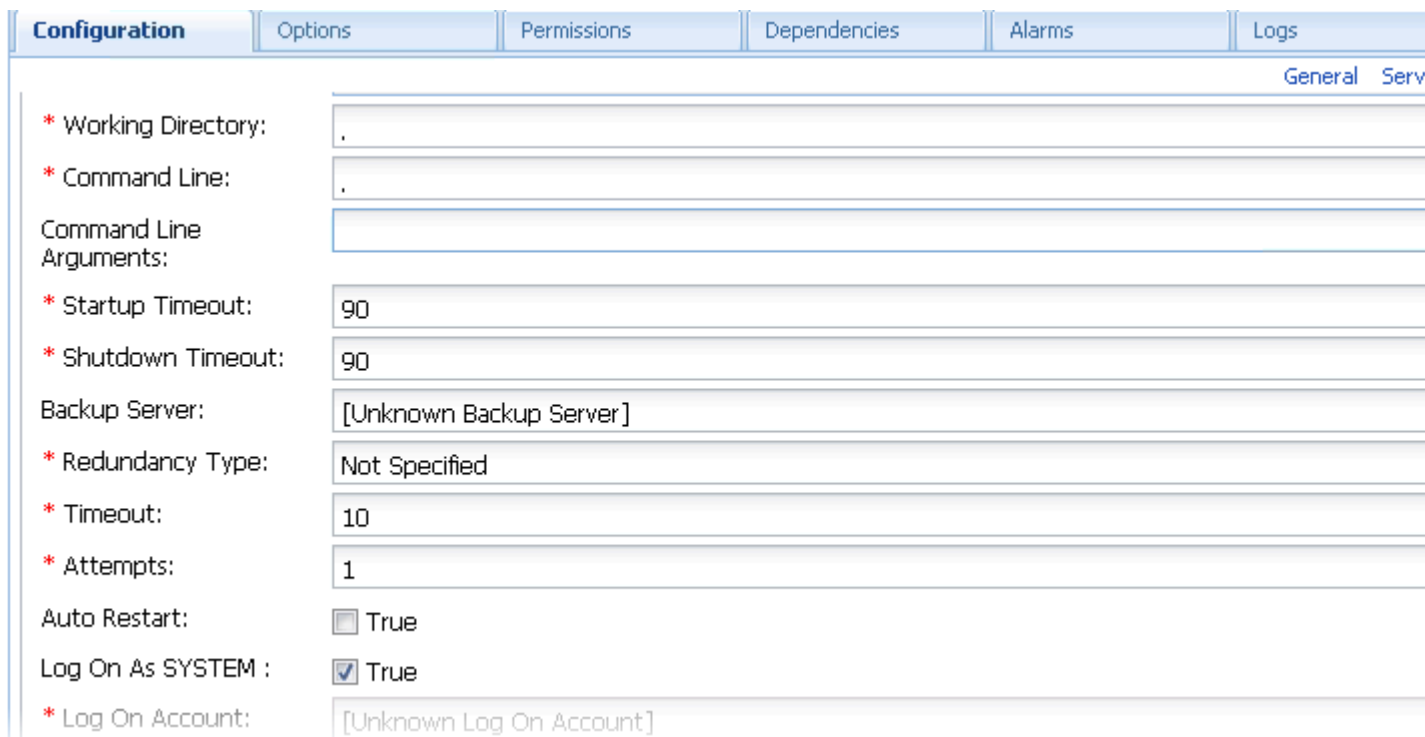
The 'Port Info' dialog box has three tabs: 'General', 'Advanced', and 'Network Security'. The 'General' tab is active. It contains the following fields:

- \* ID: https
- \* Port: 9443
- Connection Protocol: https (dropdown menu)
- HA sync: ☐ True
- Select Listening Mode: Secured (dropdown menu)
- Description: (empty text box)

At the bottom right are 'OK' and 'Cancel' buttons.

Secure listening port

11. Ensure the **Working Directory** and **Command Line** fields contain "." (period).



The 'Configuration' dialog box has several tabs: 'Options', 'Permissions', 'Dependencies', 'Alarms', and 'Logs'. The 'Options' tab is active. It contains the following fields:

- \* Working Directory: .
- \* Command Line: .
- Command Line Arguments: (empty text box)
- \* Startup Timeout: 90
- \* Shutdown Timeout: 90
- Backup Server: [Unknown Backup Server]
- \* Redundancy Type: Not Specified
- \* Timeout: 10
- \* Attempts: 1
- Auto Restart: ☐ True
- Log On As SYSTEM : ☒ True
- \* Log On Account: [Unknown Log On Account]

Commands

12. Click **Save**.
13. The **Confirmation** dialog for changing the application's port opens. Click **Yes**.
14. **Important:** Genesys recommends that you use external Cassandra, which you can configure by

following [these instructions](#). However, embedded Cassandra can be a better choice for a lab installation.

**Important:** Starting in 8.5.0, Embedded Cassandra mode is deprecated in Web Engagement; support for this mode will be discontinued in 9.0.

To configure embedded Cassandra, select the **Options** tab and complete these steps:

1. Make sure the **enabled** option in the **[cassandraEmbedded]** section is set to **true**.
  2. Set the **clusterName** option in the **[cassandraEmbedded]** section to the name of your Cassandra cluster, which must not contain spaces. For example, **My\_Cassandra\_Cluster**.
  3. In the **[cassandraEmbedded]** section, you can take the default values for all of the options except **seedNodes**, which requires a comma-separated list of seed nodes, where each seed node is represented by an IP address or fully qualified domain name (FQDN). You must select your seed nodes from one or more of the nodes where Web Engagement Servers are deployed. For more information, see the description of the **seedNodes** option. Here are two examples of seed node lists:
    - 192.168.0.1,192.168.0.3
    - host1.mydomain.com,host2.mydomain.com.
  4. Make sure that the **replicationStrategy** option in the **[cassandraKeyspace]** section is set to **NetworkTopologyStrategy**.
  5. Make sure that the **replicationStrategyParams** option in the **[cassandraKeyspace]** section is specified in accordance with the configuration of your Cassandra cluster.
  6. Edit **Web Engagement installation directory/server/resources/cassandra-rackdc.properties**.
  7. Edit **Web Engagement installation directory/server/resources/es-index.properties**.
  8. Verify that the required communication ports are opened.
15. Click **Save & Close**. If the **Confirmation** dialog opens, click **Yes**.

**End**

## Configuring a Connection to a Cluster of Chat Servers (Optional)

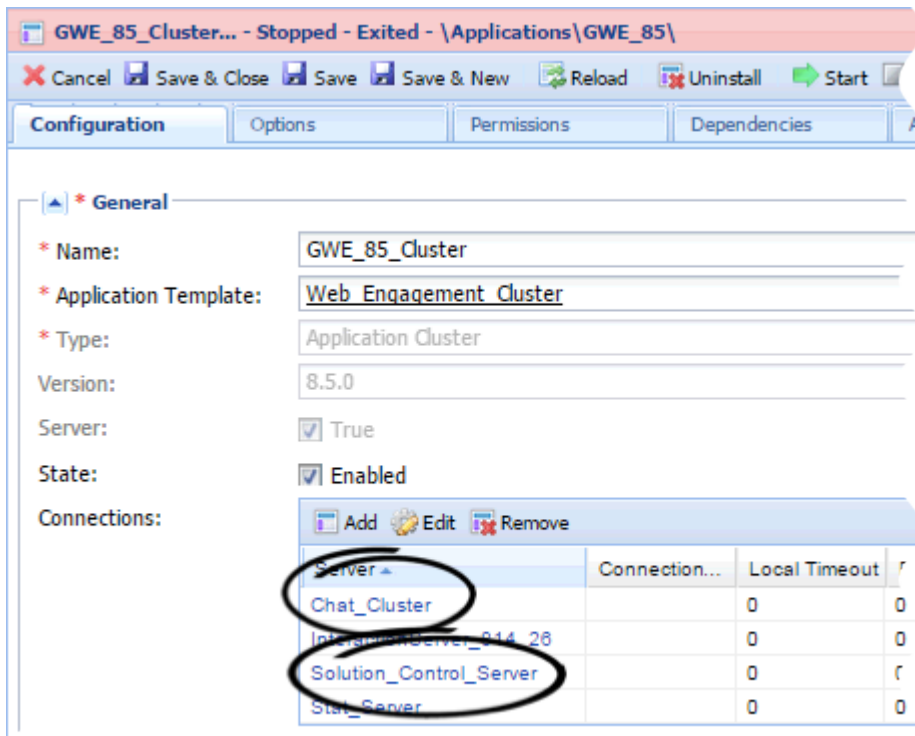
**Note:** If you are running Web Engagement in a production environment, Genesys recommends connecting the Web Engagement Cluster to a cluster of Chat Servers rather than to a single instance of Chat Server.

Complete the steps below to configure a cluster of Chat servers for the Cluster.

**Start**

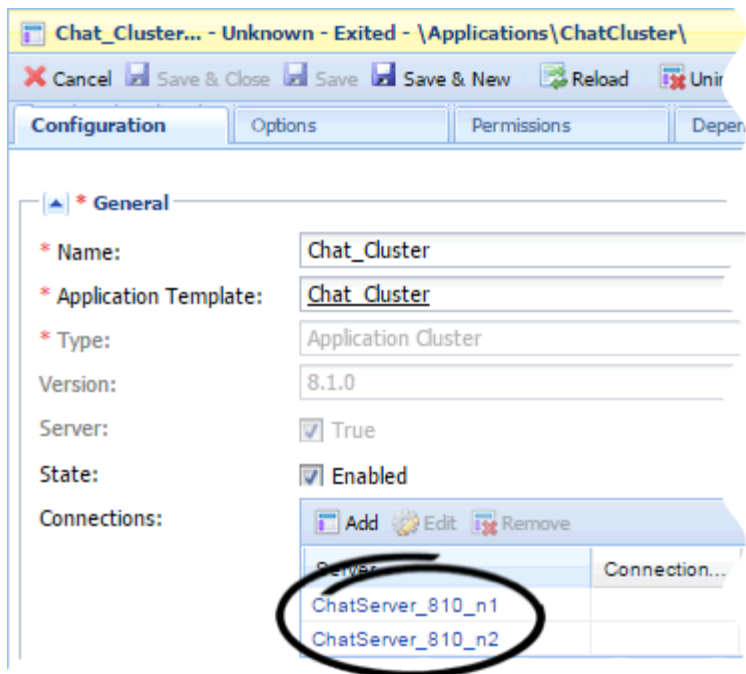
1. In Genesys Administrator, create an application with a type of **Application Cluster**. This example uses an Application Cluster app called **Chat Cluster**.
2. Navigate to **Provisioning > Environment > Applications**, select your Cluster application, and click **Edit**.
3. In the **Connections** section, add a connection to Solution Control Server and an Application Cluster

application that has connections to one or more Chat servers.



The Cluster has a connection to the **ChatCluster** Application Cluster application.

4. Click **Save & Close**
5. Open your Application Cluster application.
6. In the **Connections** section, add connections to one or more Chat Servers, using a port ID of **webapi** for each connection.



The **ChatCluster** application has connections to two Chat servers.

7. Click **Save & Close**.

**End**

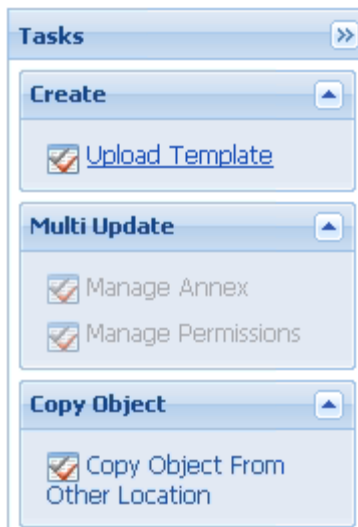
## Importing the Web Engagement Server Template

### Prerequisites

- You completed [Configuring the Cluster Application](#).

### Start

1. Open Genesys Administrator and navigate to **Provisioning > Environment > Application Templates**.
2. In the **Tasks** panel, click **Upload Template**.



Upload Template link in the Tasks panel

3. In the **Click 'Add' and choose application template (APD) file to import** window, click **Add**.
4. Browse to the **Web\_Engagement\_Server.apd** file or, if your Configuration Server does not support Web Engagement specific types, select **Web\_Engagement\_Server\_Generic.apd**, available in the **templates** directory of your installation CD. The **New Application Template** panel opens.
5. Click **Save & Close**.

**End**

## Creating a Node Application

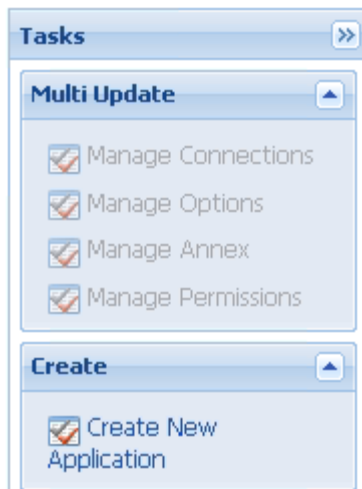
You must create and configure every node that you add to the cluster, using the instructions in this section and the **next one**.

### Prerequisites

- You completed **Importing the Web Engagement Server Template**.

### Start

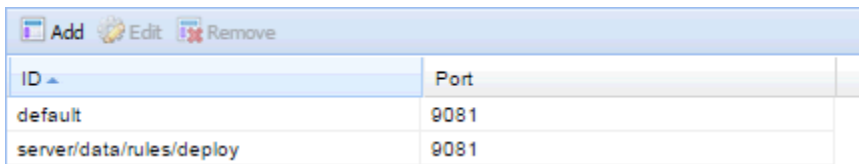
1. Open Genesys Administrator and navigate to **Provisioning > Environment > Applications**.
2. In the **Tasks** panel, click **Create New Application**.



Create New Application link.

3. In the **Select Application Template** panel, click **Browse for Template** and select the Web Engagement Server template that you imported in **Importing the Web Engagement Server Template**. Click **OK**.
4. The template is added to the **Select Application Template** panel. Click **Next**.
5. In the **Select Metadata file** panel, click **Browse**, then click **Add**, and select the **Web\_Engagement\_Server.xml** file or select the **Web\_Engagement\_Server\_Generic.xml** file if you chose **Web\_Engagement\_Server\_Generic.apd** in Step 4 of **Importing the Web Engagement Server Template**. Click **Open**.
6. The metadata file is added to the **Select Metadata file** panel. Click **Next**.
7. In **Specify Application parameters**:
  - Enter a name for your application. For instance, GWE\_85\_Node\_1.
  - Make sure that **State** is enabled.
  - Select the **Host** on which the node will reside.
  - Click **Create**.
8. The **Results** panel opens. Click the **Finish** button. The Web Engagement Node application form opens and you can start configuring the Web Engagement Node application.
9. Expand the **Server Info** pane.
10. In the Listening Ports section, create the default port by clicking **Add**. The **Port Info** dialog opens.
  - Enter the **Port**. For instance, 9081.
  - Choose http for the **Connection Protocol**.
  - Click **OK**. The HTTP port with the default identifier appears in the list of **Listening ports**.
11. Create the port with the server/data/rules/deploy identifier by clicking **Add**.
  - Enter server/data/rules/deploy for the ID.
  - Enter the same port value as you did for the default port. For instance, 9081.
  - Select http for the **Connection Protocol**.

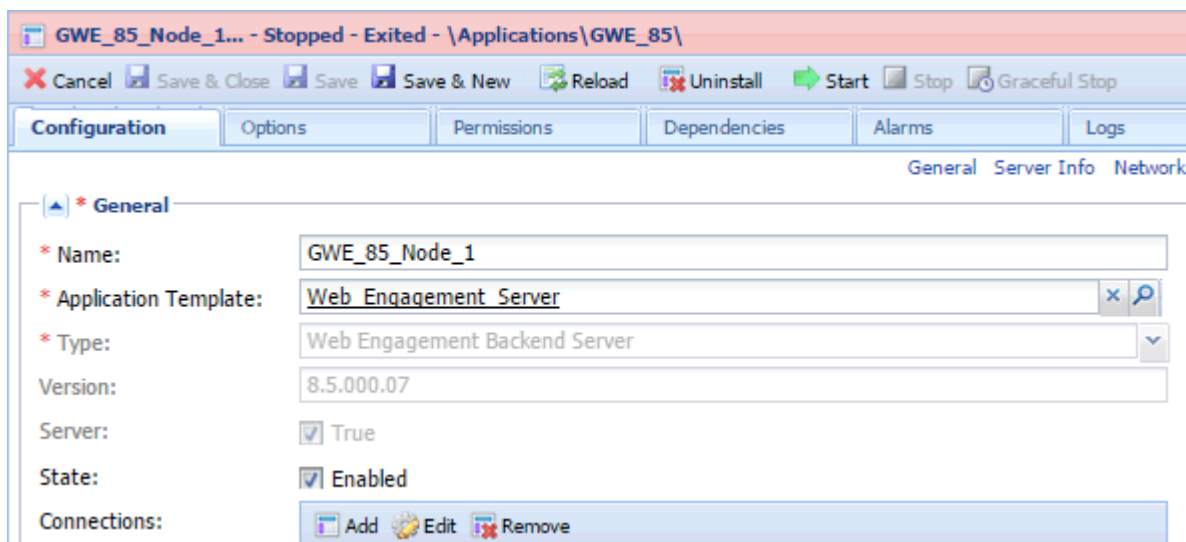
- Click **OK**. The HTTP port with server/data/rules/deploy ID appears in the list of Listening ports.



ID	Port
default	9081
server/data/rules/deploy	9081

Node listening ports

- Click **Save**.
- A **Confirmation** dialog opens. Click **Yes**.
- (Optional) If you are using a Web\_Engagement\_Server\_Generic template for your application object, you need to create a **[webengagement]** section in the Annex. Click **New** in the **Options** tab. The **New Options** dialog opens.
  - Select Annex for **Location**.
  - Enter webengagement for **Section**.
  - Enter type for **Name**.
  - Enter gweserver for **Value**.
  - Click **OK** to create the new annex. You can see it by selecting Advanced View (Annex) in the **View** selector.
- Click **Save & Close**. If the **Confirmation** dialog opens, click **Yes**.
- Enable **Opens the Application details form after clicking 'Finish'** and click **Finish**. The GWE\_85\_Node\_1 application form opens and you can start configuring the node application.



Node app opened in Genesys Administrator.

**End**

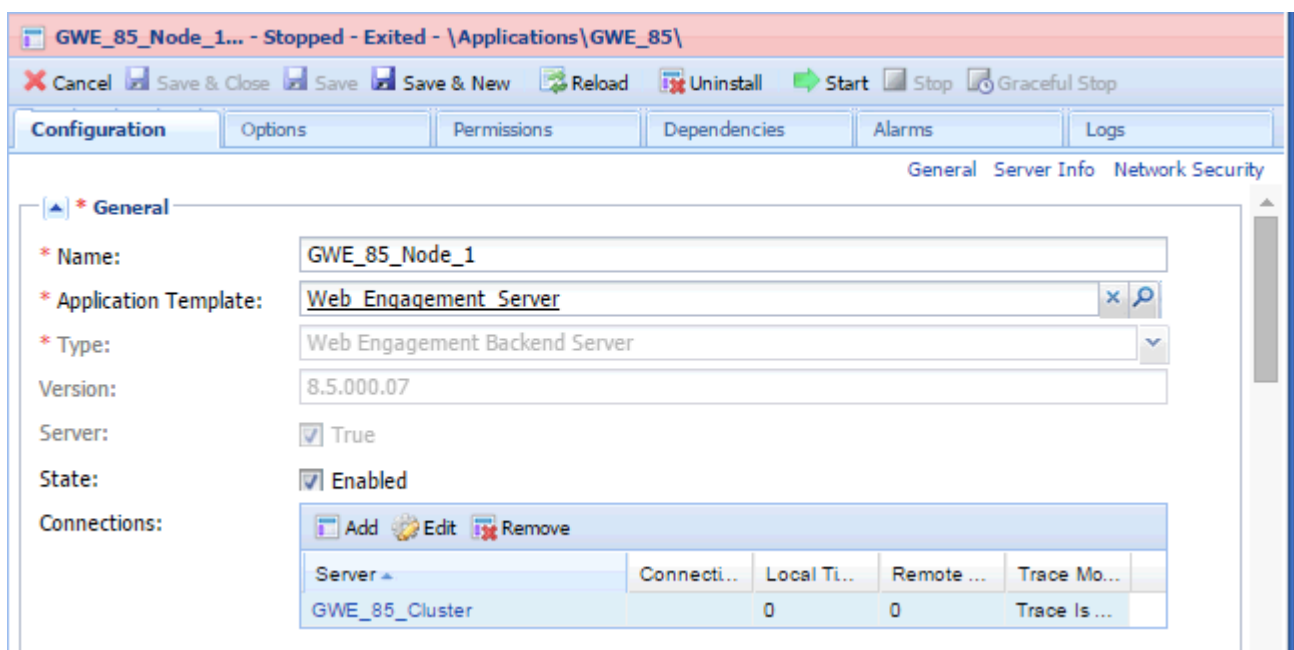
## Configuring a Node Application

### Prerequisites

- You completed [Creating a Node Application](#).

### Start

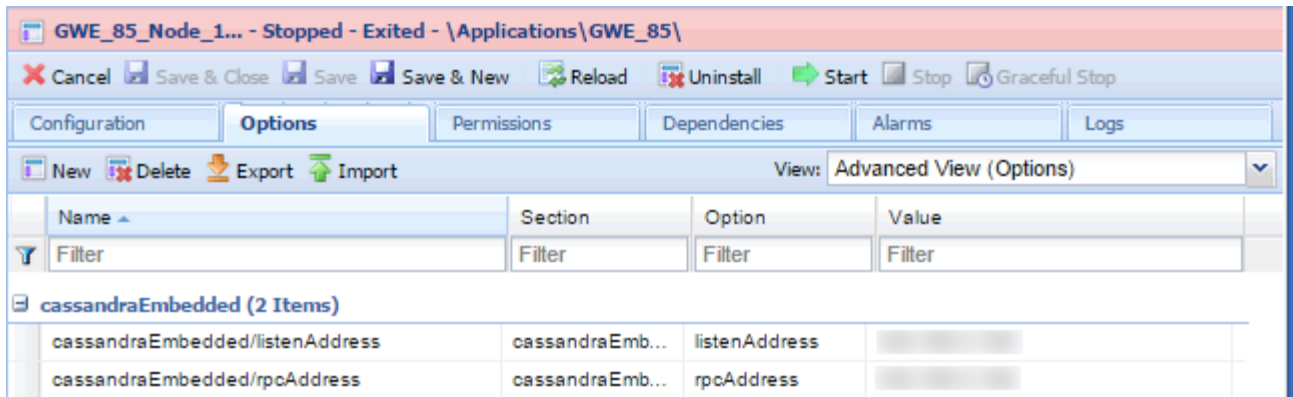
- If your node application form is not open in Genesys Administrator, navigate to **Provisioning > Environment > Applications**. Select the application defined for the node and click **Edit....**
- In the **Connections** section of the **Configuration** tab, click **Add**. The **Browse for applications** panel opens. Select the Web Engagement Cluster application you defined above, then click **OK**.



Node connection to Cluster

- Expand the **Server Info** pane.
- In the Tenant section, click **Add** and select your tenant. For instance, Environment. Click **OK**.
- If your **Host** is not defined, click the lookup icon to browse to the hostname of your application.
- The **Confirmation** dialog for changing the application's port opens. Click **Yes**.
- Important:** Genesys recommends that you use external Cassandra, which you can configure by following [these instructions](#). However, embedded Cassandra can be a better choice for a lab installation.  
**Important:** Starting in 8.5.0, Embedded Cassandra mode is deprecated in Web Engagement; support for this mode will be discontinued in 9.0.  
 To configure embedded Cassandra, select the **Options** tab. In the [\[cassandraEmbedded\]](#) section, set the values for [listenAddress](#) and [rpcAddress](#), using a fully qualified domain name or the appropriate IP address.





Cassandra Listen and RPC Addresses

8. (Optional) In the **[log]** section, the **all** option is set to stdout by default. Enter a filename if you wish to enable logging to a file. For example, you can enter stdout, C:\Logs\WebEngagement\GWE\_Node1 to force the system to write logs in the console and in a file called GWE\_Node1.log.

**End**

## Adding Nodes to a Cluster

### Prerequisites

You completed:

- [Creating the Cluster Application](#).
- [Configuring the Cluster Application](#)
- [Creating a Node Application](#)
- [Configuring a Node Application](#)

**Note:** A single-node configuration works well in a lab environment, but in production, you need more than one node, in order to provide high availability. And every time you establish a new node, you must complete the following steps in order to create and configure it.

### Start

1. Follow the instructions above for [Creating a Node Application](#), but use a different name for the new node.
2. [Configure the new node application](#), as shown above, but point to a different server address.

**End**

**Important:** If you use more than one node, you need to set up [Load Balancing](#) in your environment.

## Installing the Web Engagement Server

Install the Web Engagement Server on Windows or Linux.

**Note:** For more information on how to install apps that you have configured in Genesys Administrator, consult [Generic Installation Procedures](#).

### Windows

#### Prerequisites

- [Configuring a Node Application](#)

#### Start

1. In your installation package, locate and double-click the **setup.exe** file. The Install Shield opens the welcome screen.
  2. Click **Next**. The **Connection Parameters to the Configuration Server** screen appears.
  3. Under **Host**, specify the host name and port number where Configuration Server is running. (This is the main "listening" port entered in the **Server Info** tab for Configuration Server.)
  4. Under **User**, enter the user name and password for logging on to Configuration Server.
  5. Click **Next**. The **Select Application** screen appears.
  6. Select the Web Engagement Server Application—that is, the Node app you created above—that you are installing. The **Application Properties** area shows the **Type**, **Host**, **Working Directory**, **Command Line executable**, and **Command Line Arguments** information previously entered in the **Server Info** and **Start Info** tabs of the selected Application object.
  7. Click **Next**. The **Choose Destination Location** screen appears.
  8. Under **Destination Folder**, keep the default value or browse for the desired installation location.
  9. Click **Next**. The **Backup Configuration Server Parameters** screen appears.
  10. If you have a backup Configuration Server, enter the **Host name** and **Port**.
  11. Click **Next**. The **Ready to Install** screen appears.
  12. Click **Install**. The Genesys Installation Wizard indicates it is performing the requested operation for Web Engagement Server. When through, the **Installation Complete** screen appears.
  13. Click **Finish** to complete your installation of the Web Engagement Server.
- **Before using Genesys Web Engagement, you must either [create](#) and [deploy](#) your own Web Engagement application or deploy the provided sample application.**

#### End

# Linux

## Prerequisites

- [Configuring a Node Application](#)

## Start

1. Open a terminal in the Genesys Web Engagement CD/DVD or the Genesys Web Engagement IP, and run the **install.sh** file. The Genesys Installation starts.
  2. Enter the hostname of the host on which you are going to install.
  3. Enter the connection information to log in to Configuration Server:
    - The hostname. For instance, `demosrv.genesyslab.com`.
    - The listening port. For instance, `2020`.
    - The user name. For instance, `demo`.
    - The password.
    - If the connection settings are successful, a list of keys and Web Engagement applications is displayed.
  4. Enter the key for the Web Engagement Server application—that is, the Node app you created above—that you created previously in Configuration Server.
  5. Enter the location where Genesys Web Engagement is to be installed on your web server.  
**Note:** This location must match the previous settings that you entered in Configuration Server.
  6. If you have a backup Configuration Server, enter the Host name and Port.
  7. If the installation is successful, the console displays the following message:  
Installation of Genesys Web Engagement Server, version 8.5.x has completed successfully.
- **Before using Genesys Web Engagement, you must either [create](#) and [deploy](#) your own Web Engagement application or deploy the provided sample application.**

## End

# Configuring alarms

Genesys recommends that you tune the following [Web Engagement alarms](#):

- Incorrect load balancer routing
- Event Duration
- VisitProfile cache size
- Events cache size
- DroolsSession cache size

- Heap Memory Usage
- GC Latency

### Next Steps

- Before using Genesys Web Engagement, you must either **create** and **deploy** your own Web Engagement application or deploy the provided sample application.
- At that point, you can **Configure Genesys Rules System** to work with GWE.