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# Genesys App Automation Platform Deployment Guide

Genesys Intelligent Automation 3.5.1

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# Genesys App Automation Platform Deployment Guide

Welcome to the Genesys App Automation Platform Deployment Guide.

This document describes the necessary steps to complete a new installation of the Genesys App Automation Platform (GAAP) software or upgrade an existing version. It pertains to installing or upgrading to GAAP version 3.5.000.08 (also known as *Nolan*).

Select one of the scenarios below:

- [New Installation](#)
- [Upgrading an Existing Installation](#)

# New Installation

This page describes how to install a new instance of GAAP into a test or production environment.

## Installation prerequisites

### Important

Before proceeding, refer to the prerequisites document to review minimum specifications, including database requirements, that must be met before installation begins.

## Set up databases

### [+] Click to show instructions for SQL Server

1. Open *SQL Server Configuration Manager*.
2. In the list, navigate to **SQL Server Network Configuration > Protocols for <database\_instance\_name>**.
3. In the right pane, double-click on **TCP/IP** to open TCP/IP Properties. Perform the following actions:
  - a. In the **Protocol** tab, ensure that TCP/IP is enabled. The **Enabled** value must be **Yes**.
  - b. In the **IP Addresses** tab, go to the **IPAll** section and set **TCP Port** 1433.
  - c. Click **OK**.
4. Close *SQL Server Configuration Manager*.
5. Open *Windows Services*.
6. Right-click on your SQL Server and select **Restart**.
7. Close *Windows Services*.
8. Open *SQL Server Management Studio*.
9. In the **Connect to Server** dialog box, log in as an Administrator (**Windows Authentication**).
10. In the **Object Explorer** panel, right-click on **Security > Logins** and select **New Login**.
11. In the **Login - New** dialog box, perform the following actions:
  - a. In the **Login name** field, enter speechstorm.
  - b. Select **SQL Server Authentication**.

- c. Disable the **Enforce password expiration** check box.
- d. In the **Server Roles** page, ensure **public** is checked.
- e. Click **OK**.

12. In the toolbar, click **New Query**.

13. In the query window, enter the following:

```
use master;
create database fish;
create database fishreports;
GO
alter database fish set ALLOW_SNAPSHOT_ISOLATION ON;
alter database fishreports set ALLOW_SNAPSHOT_ISOLATION ON;
GO

use fish;
create user speechstorm for login speechstorm;
exec sp_addrolemember N'db_ddladmin', N'speechstorm';
grant SELECT, DELETE, INSERT, UPDATE, EXECUTE, VIEW DATABASE STATE to speechstorm;

use fishreports;
create user speechstorm for login speechstorm;
exec sp_addrolemember N'db_ddladmin', N'speechstorm';
grant SELECT, DELETE, INSERT, UPDATE, EXECUTE, VIEW DATABASE STATE to speechstorm;
```

14. Click **Execute** to run the SQL query.

15. Close *SQL Server Management Studio*.

## [+] Click to show instructions for Oracle

- 1. Open *Oracle SQL Developer*.
- 2. Log in as the **SYSTEM** user.
- 3. Open a new SQL Worksheet for that connection.
- 4. In the new editor window, use one of the following examples:

### Example for Oracle 11g

```
CREATE BIGFILE TABLESPACE fish          DATAFILE 'fish.dbf'
                                         SIZE 20M AUTOEXTEND ON;
CREATE BIGFILE TABLESPACE fishreports   DATAFILE 'fishreports.dbf'
                                         SIZE 20M AUTOEXTEND ON;

CREATE USER C##fish                      IDENTIFIED BY speechstorm
                                         DEFAULT TABLESPACE fish;
CREATE USER C##fishreports               IDENTIFIED BY speechstorm
                                         DEFAULT TABLESPACE fishreports;

GRANT "RESOURCE" TO C##fish;
GRANT "RESOURCE" TO C##fishreports;
GRANT "CONNECT" TO C##fish;
GRANT "CONNECT" TO C##fishreports;
GRANT CREATE ANY VIEW TO C##fish;
GRANT CREATE ANY VIEW TO C##fishreports;
```

```
GRANT INSERT ANY TABLE TO C##fish;
GRANT INSERT ANY TABLE TO C##fishreports;
GRANT UNLIMITED TABLESPACE TO C##fish;
GRANT UNLIMITED TABLESPACE TO C##fishreports;
GRANT SELECT_CATALOG_ROLE to C##fish;
GRANT SELECT_CATALOG_ROLE to C##fishreports;
GRANT SELECT ANY DICTIONARY to C##fish;
GRANT SELECT ANY DICTIONARY to C##fishreports;
```

### Example for Oracle 12c

```
CREATE BIGFILE TABLESPACE fish DATAFILE 'fish.dbf' SIZE 20M AUTOEXTEND ON;
CREATE BIGFILE TABLESPACE fishreports DATAFILE 'fishreports.dbf' SIZE 20M AUTOEXTEND ON;
CREATE USER fish IDENTIFIED BY speechstorm DEFAULT TABLESPACE fish;
CREATE USER fishreports IDENTIFIED BY speechstorm DEFAULT TABLESPACE fishreports;
GRANT "RESOURCE" TO fish;
GRANT "RESOURCE" TO fishreports;
GRANT "CONNECT" TO fish;
GRANT "CONNECT" TO fishreports;
GRANT CREATE ANY VIEW TO fish;
GRANT CREATE ANY VIEW TO fishreports;
GRANT INSERT ANY TABLE TO fish;
GRANT INSERT ANY TABLE TO fishreports;
GRANT UNLIMITED TABLESPACE TO fish;
GRANT UNLIMITED TABLESPACE TO fishreports;
GRANT SELECT_CATALOG_ROLE to fish;
GRANT SELECT_CATALOG_ROLE to fishreports;
GRANT SELECT ANY DICTIONARY to fish;
GRANT SELECT ANY DICTIONARY to fishreports;
```

5. Click **Execute Script**.

## Create the directory structure and prepare the environment

1. Upload a copy of the GAAP installer ZIP file onto each of the machines that will be used.
2. Create a folder called **SpeechStorm** (case sensitive), preferably in the same location on all of the machines that will be used. This folder acts as the base folder location for the install. In most instances, you can use the following location: **C:\SpeechStorm**. This document references this location throughout. You can use a different drive and folder name, but Genesys recommends you create it on or close to the root or top level of the drive.
3. Unzip the GAAP installer into each of the **SpeechStorm** folders that you created on various machines in the previous step. Ensure the folder structure is exactly as follows, without any additional directory levels.
  - **C:\SpeechStorm\Platform\..**
  - **C:\SpeechStorm\Setup\..**
4. Update the database connection details in the **database.properties** file to point to your databases. The **database.properties** files are set per Tomcat instance and are found in the following locations:
  - **C:\SpeechStorm\Platform\TomcatGUI\lib\database.properties**
  - **C:\SpeechStorm\Platform\TomcatVUI\lib\database.properties**
  - **C:\SpeechStorm\Platform\TomcatMessaging\lib\database.properties**

Inside each file are template connection strings for SQL Server and Oracle, with the Oracle connection string commented out. You must update these details to match your environment. Ensure you only uncomment one set of connection strings (for example, if you are using SQL Server, make sure Oracle is commented out).

### SQL Server Example

```
#####  
#  
#   SQL Server 2008  
#  
#####  
Database.JDBC.Driver=com.microsoft.sqlserver.jdbc.SQLServerDriver  
Database.JDBC.ConnectionURL=jdbc:sqlserver://localhost:1433;Database=fish;Trusted_Connection=False;loginTim  
Database.JDBC.Username=speechstorm  
Database.JDBC.Password=speechstorm  
Database.Pool.ConnectionValidationQuery=SELECT 1  
  
ReportsDatabase.JDBC.Driver=com.microsoft.sqlserver.jdbc.SQLServerDriver  
ReportsDatabase.JDBC.ConnectionURL=jdbc:sqlserver://localhost:1433;Database=fishreports;Trusted_Connection=  
ReportsDatabase.JDBC.Username=speechstorm  
ReportsDatabase.JDBC.Password=speechstorm  
ReportsDatabase.Pool.ConnectionValidationQuery=SELECT 1
```

### Oracle example

```
#####  
#  
#   Oracle 11g  
#  
#####  
Database.JDBC.Driver=oracle.jdbc.OracleDriver  
Database.JDBC.ConnectionURL=jdbc:oracle:thin:@localhost:1521:xe  
Database.JDBC.Username=C##fish_USER  
Database.JDBC.Password= speechstorm  
Database.Pool.ConnectionValidationQuery=SELECT 1 FROM DUAL  
  
ReportsDatabase.JDBC.Driver=oracle.jdbc.OracleDriver  
ReportsDatabase.JDBC.ConnectionURL=jdbc:oracle:thin:@localhost:1521:xe  
ReportsDatabase.JDBC.Username=C##fishreports_USER  
ReportsDatabase.JDBC.Password= speechstorm  
ReportsDatabase.Pool.ConnectionValidationQuery=SELECT 1 FROM DUAL
```

5. Download the following file: [log4j.properties](#).
6. Place a copy of the **log4j.properties** file in the following locations:
  - C:\SpeechStorm\Platform\TomcatGUI\webapps\fish-gui\WEB-INF\classes
  - C:\SpeechStorm\Platform\TomcatVUI\webapps\fish-vui\WEB-INF\classes
  - C:\SpeechStorm\Platform\TomcatMessaging\webapps\fish-messaging\WEB-INF\classes
  - C:\SpeechStorm\Platform\TomcatMessaging\webapps\fish-loadbalancer\WEB-INF\classes

## Install GAAP components and Windows Services

Navigate to **C:\SpeechStorm\Setup**, right-click on **SS\_FW\_Install.bat** and select **Run as Administrator**.

## Warning

You must select **Run as Administrator** or the services will be installed with insufficient privileges.

**SS\_FW\_Install.bat** sets the paths for Java and Catalina home, creates self-signed certificates for HTTPS, and creates Windows Services to start automatically for the GAAP software and Flex licensing component.

During execution, the batch file prompts you to select different options depending on your environment.

1. **Enter the path to the Platform folder e.g. C:\SpeechStorm\Platform :**

Enter the path to where you created the SpeechStorm folder and unzipped the installer. For example, C:\SpeechStorm\Platform.

## Important

This path is case sensitive. If incorrect, the installer prompts you to enter the path again.

2. **Would you like to install a GUI server? (Y/N)**

Answer y or n and press Enter.

This option asks if you want to run a GUI (administrator) web application on this machine. Choose this option if this machine will be used for authoring call flows, viewing reports, and general setup. You must have at least one GUI per installation. If this is a single-server install, you must install this component now.

3. **Would you like to install a VUI server? (Y/N)**

Answer y or n and press Enter.

This option asks if you want to run a VUI (call-handling) web application on this machine. A VUI handles customer calls, and in a production environment there might be several VUIs that service calls. If this is a single-server install, you must install this component now. Generally, companies install one VUI per server, as this is the component that handles calls and is the most commonly clustered component.

4. **Would you like to install a Messaging server? (Y/N)**

Answer y or n and press Enter.

This option asks if you want to install a messaging server and load balancer. These are specifically for visual IVR and Facebook Messenger.

5. **Now we will generate and install the certificate for the GUI.**



**Please enter the server FQDN or Fully Qualified Domain Name.**

Enter the computer's FQDN to generate a self-signed SSL certificate for the GUI. This value is case sensitive.

After the installer generates a self-signed SSL certificate, you can view it in the following location:  
C:\SpeechStorm\Platform\TomcatGUI\conf.

**6. Enter pass phrase for speechstorm.key**

Enter the password to create the self-signed certificate for the GUI.

The installer asks you to enter this password three times. Ensure you remember this password, as it will be used later in this install.

**7. Setting up the Windows service for TomcatGUI.**

**Enter the name for the TomcatGUI Windows Service e.g. FishGUI:**

If you chose to install a GUI server on this machine, the installer asks you to select a unique name for the Windows Service. Genesys recommends the name **FishGUI**. After you enter this name, the installer creates a Windows Service set to automatically start.

**8. Now we will generate and install the certificate for the Messaging server.**

**Please enter the server FQDN -Fully Qualified Domain Name-**

Enter this computer's FQDN to generate a self-signed SSL certificate for the Messaging server. After the installer generates a self-signed SSL certificate, you can view it in the following location: **C:\SpeechStorm\Platform\TomcatMessaging\conf.**

**9. Enter pass phrase for speechstorm.key**

Enter the password to create the self-signed certificate for the Messaging server.

The installer asks you to enter this password three times. Ensure you remember this password, as it will be used later in this install.

**10. Setting up the Windows service for TomcatMessaging**

**Enter the name for the TomcatMessaging Windows Service e.g. FishMessaging**

If you chose to install a Messaging server on this machine, the installer asks you to select a unique name for the Windows Service. Genesys recommends the name **FishMessaging**. After you enter this name, the installer creates a Windows Service set to automatically start.

**11. Setting up the Windows service for TomcatVUI**

**Enter the name for the TomcatVUI Windows Service e.g. FishVUI**

If you chose to install a VUI server on this machine, the installer asks you to select a unique name for the Windows Service. Genesys recommends the name **FishVUI**. After you enter this name, the installer creates a Windows Service set to automatically start.

**12. Note: Make sure you modify the database.properties file for all Tomcat's for connection to MSSQL environment**

This note reminds you to update the **database.properties** file to reflect the configuration of your environment (Oracle or SQL Server).

### 13. Installing License Server...

The installer is implementing the Flex licensing component as a Windows Service set to automatically start. This is required to license GAAP and a valid license must be imported into Flex before GAAP starts.

### 14. Populating Database...

Database scripts execute **Migrate.bat** and **Post Migrate.bat** to set up the database schema for GAAP.

#### Important

This database script only needs to run one time per installation, as all servers connect to this central database. If you have already run this script during an install on another machine, you can quit the script.

15. (Optional) Install additional GAAP servers to handle call load. For example, most GAAP users set up multiple VUI servers to process calls. To add additional VUI servers, complete the following steps on each host machine:

#### [+] Click to show section

- Follow the steps in the section [Create the directory structure and prepare the environment](#). You can copy the **database.properties** files from the machine on which you previously installed GAAP.
- Follow the steps in this section, [Install GAAP components and Windows Services](#), but note the following changes:
  - Press **n** (no) when asked to install a GUI server or Messaging server.
  - Press **y** (yes) when asked to install a VUI server.

## Use Flex to license GAAP server

Next, you must license the GAAP server within Flex before you can start the GAAP services. To do this, you need a license file that was provided with the installer files.

#### Important

License files are explicitly generated using the MAC address of the machines intended for the installation. License files cannot be used on a different machine.

- Open Windows Services using one of the following methods in Windows:

- Open the Start menu, click **Search**, and enter Services.
- Open the Control Panel and select **Services**.

In Windows Services, right-click on **SpeechStorm License Manager** and select **Start**.

2. After the service initializes, open a web browser and navigate to `http://localhost:8090` to open the Flex web interface.
3. After the webpage loads, click on the **Administration** tab and use the following login:
  - Username: admin
  - Password: 123456789
4. After logging in, click **Vendor Daemon Configuration** to display a list of licenses. For the single entry in the list, click **Delete**.
5. Click **Import License** to upload the license file that was delivered with the installer and specific for this machine. Select the license file and ensure you enable the **Overwrite License File on License Server** check box. After you import the file, check the list of licenses again. If the import is successful, the list displays your license with a status of **Up**.

## Update SSL certificates

Next, update the password for the SSL certificates that were created earlier. You must update the passwords listed in the following locations:

- **C:\SpeechStorm\Platform\TomcatGUI\conf\server.xml**
- **C:\SpeechStorm\Platform\TomcatVUI\conf\server.xml**
- **C:\SpeechStorm\Platform\TomcatMessaging\conf\server.xml**

In each file, locate the **SSLPassword** value and update it to the one you created when generating the SSL certificates.

## Start GAAP services

In Windows Services, start the following services:

- Apache Tomcat 7.0 FishGUI
- Apache Tomcat 7.0 FishMessaging
- Apache Tomcat 7.0 FishVUI

## Use the GUI server to configure GAAP

Now you can access the GAAP administrator (GUI) server via a web browser.

1. Open a web browser and enter `http://localhost:8080/fish-gui`. After the page loads, confirm that the browser correctly redirected to use **https**.
2. The browser displays a security warning because you created a self-signed certificate during the install. In Google Chrome, click **ADVANCED** and then click **Proceed to localhost (unsafe)**. This indicates to

the browser that you understand the certificate is self-signed. This process might vary in other browsers.

3. The browser displays the GUI authentication screen. Enter the following:

- Username: `gaap.admin@genesys.com`
- Password: 123456

After you log in, GAAP redirects you to change your password.

4. Go to **Administration > Servers** and perform the following actions:

a. (Optional) For each of the following rows, click the **delete** link and delete the servers:

- **Default SMS Server**
- **Default Outbound Server**
- **Default Mobile Server**

### Important

In the following steps, the hostname you enter must be reachable from the MCP servers, as this hostname is sent in the rendered GAAP VXML. For example:

- If you enter `localhost` as a hostname but the MCP server is not installed on the same machine, the hostname `localhost` does not work.
- If you enter `gaapvui1` as a hostname but the MCP server cannot reach this server without a FQDN such as `gaapvui1.genesys.com`, the hostname `gaapvui1` does not work.

b. In the **Default VUI Server** row, click **edit**. Set the hostname to the name of your VUI server and port to 8082. Click **Save**.

c. (Optional) If you installed additional VUI servers, perform the following steps.  
**[+] Click to show section**

i. Click **Create a New Server** and select **New Voice Server**.

ii. Enter the following information:

- **Server Name** - Enter a descriptive name for the server. For example, `VUI_2`.
- **Server Connection Details** - Select a connection type (HTTP or HTTPS) and enter a hostname and port.
- **Cluster** - Specify which cluster to attach this server. Typically, this setting is unchanged from the **Default Voice Cluster**.
- **Server Status** - Select the **Active** check box to make this server active and therefore able to process calls.
- Click **Save**.

iii. In the **Servers** list, look for your new server and note its **ID** value.

iv. On the server host machine, go to **C:\SpeechStorm\Platform\TomcatVUI\lib\**.

- v. Open the **fish-vui-local.properties** file for editing.
  - vi. Look for the following line: **ThisServer.ID=#**. Replace **#** with the **Server ID** value you noted earlier.
  - vii. Go to Windows Services and restart the FishVUI service.
- d. In the **Default Admin Server** row, click **edit**. Set the hostname to the name of your GUI server. Click **Save**.
  - e. (Optional) This step applies only if you installed the Messaging server. **[+] Click to show section**

Go to **Administration > Clusters** and click **Create a new Cluster**. In the **New Cluster Type**: pop-up, select **New Load Balancer Cluster**. In the next screen, enter the following information:

- **Cluster Name** - Specify a unique name.
- **Load Balancer Servers Will Balance Requests Arriving at This Port** - Select **http** and a port number that is not used by anything else on this machine.
- **Hostname Used in External Links to this Cluster** - Specify the machine's host name.
- Click **Save**.

Go to **Administration > Servers**. If there is no Load Balancer server, click **Create a New Server**. In the **New server type**: pop-up, select **New Load Balancer Server**. In next screen, enter the following information:

- **Server Name** - Specify a unique name.
- **Server Connection Details** - Specify a server name and port number.

### Important

By default, the port number is **8081**. To verify, open C:\SpeechStorm\platform\TomcatMessaging\conf\server and check the value for **Connector port**.

- **Cluster** - Select the cluster you created in **Administration > Clusters**.
  - **Server Status** - Enable the **Active** check box.
  - Click **Save**.
- f. Click **Re-run Server Checks** to refresh the server list and ensure all servers are functioning normally.

### Important

Servers set to use HTTPS do not report as being available until the next step is performed.

7. (Optional) Set up HTTPS for Voice, Messaging and Load Balancer servers.
  - a. Go to **Administration > Certificates**.
  - b. Click **Import a new Certificate**.
  - c. In **Remote Server Details**, enter the hostname and port number of the server for which you want

to import the certificate.

- d. Click **Get Certificate**. The page updates to show the certificate has been fetched successfully.
- e. Enter a description in the **Description** field.
- f. Click **Save**.

### Important

You might see a message stating the cache cannot be flushed on the server. This is because the HTTPS server cannot communicate until the certificate has been uploaded and services have been restarted. If you see this error, go to **Administration > Certificates** again and you can see the certificate you uploaded. Repeat this process for all servers that use HTTPS, then restart those servers. When they come back on, they appear as **Online** in the **Administration > Servers** tab.

8. Go to **Administration > Default Server Settings** and update the following settings:
  - **GraphViz.DotPath** - Specify the path to the GraphViz executable. Usually, this is `C:/SpeechStorm/Platform/Apps/GraphViz/bin/dot.exe` (use forward slashes).
  - (Optional) **Login.Security.Strict** - Set to `true` if you are in a PCI environment.
  - **Email.SMTP.Host** - Specify the hostname of your SMTP server (for example, `mail.speechstorm.com`).
9. Click **Save**.
10. Go to Windows Services and restart GAAP services, including FishGUI, FishMessaging, and optionally FishVUI.
11. After the services restart, log in again and go to **Administration > Servers**. Ensure all components are online.

## Import products and templates

### Important

Before proceeding, ensure you are still in the **Templates** company by checking the company name beside your username in the top-right corner.

1. To import products, go to **Administration > Products**.
  - a. Click **Import a Product** to display a new page.
  - b. Click **Import Product** and select the **All Production Definitions.zip** file, usually found at the following location: `C:\SpeechStorm\Platform\AppsToBeInstalled\Products and templates\All Product Definitions.zip`.
  - c. Select the option **Overwrite Product ID if it Already Exists**.
  - d. Click **Import Product**.

2. To import templates, click **Import** in the top-level navigation bar.
  - a. Select **Import everything**.
  - b. Click **Choose File** and select the **All Production Templates.zip** file, usually found at the following location: C:\SpeechStorm\Platform\AppsToBeInstalled\Products and templates\All Product Templates.zip.
  - c. Click **Choose Modules to Import....** A pop-up displays a list of templates that will be imported.
  - d. Scroll to the bottom of the list and ensure the **Create new persona for 'Visual Default Persona'** check box is enabled.
  - e. Click **Import**.

# Existing Installation

This page describes how to upgrade an existing instance of GAAP without a service outage.

## Installation prerequisites

- A running instance of GAAP on any previous version with more than one VUI.

You can update a production or production-like environment without a service outage if there is more than one VUI to process calls. To do so, you must isolate a single instance at a time, update the application, and then return it to the cluster. You can repeat this process for each of the VUIs in your environment.

### Warning

While you can execute database migration during the first server upgrade, **DO NOT** execute post-migrate activities until you update the last server.

## Stop the server

Select one of the servers to upgrade, and then deactivate it within the GUI.

1. Log in to GAAP.
2. Go to **Administration > Servers**. GAAP displays a list of servers in your environment.
3. Note the name and ID number of servers in this list (for example, **FishGUI** and **1**) as this information is required **later in this process**.
4. Select one server to upgrade. Click **Edit**. A server details screen appears.
5. De-select the **Server Status** check box, thereby making the server inactive.
6. Click **Save**.
7. Wait for the VUI to process its current calls (the server does not accept new calls once it is inactive). In the **Administration > Servers** page, wait for the **Active Sessions** count to show **0**. You can refresh the **Administration > Servers** page as necessary to view the latest **Active Sessions** count.
8. After the **Active Sessions** count is **0**, you can stop all services on that specific machine.
  - a. Open the Windows Services manager on the machine that hosts the VUI to be upgraded. Choose one of the following methods:
    - Open the Start menu, click **Search**, and enter Services.



- Open the Control Panel and select **Services**.
- b. In the Windows Services manager, identify all GAAP components. Right-click on each component and select **Stop**. It might take up to one minute for the service to actually stop. You can confirm it has stopped by refreshing the window until the component status displays **Stopped**.

## Uninstall the previous GAAP server

1. Make a backup of the existing folder structure. If you used the default install location for GAAP, go to **C:\SpeechStorm\Platform** and copy its contents to another location.
2. Go to **C:\SpeechStorm\Setup**, right-click **SS\_FW\_Uninstall.bat**, and select **Run as administrator**. This file presents the following prompts:

### Tip

Remember the **step above** about noting server names? We will use this information in the steps below.

- a. **Enter the name for the TomcatGUI Windows Service e.g. FishGUI**  
Enter the name of the GUI service. For example: FishGUI.
- b. **Enter the name for the TomcatVUI Windows Service e.g. FishVUI**  
Enter the name of the VUI service. For example: FishVUI.
- c. **Enter the name for the TomcatMessaging Windows Service e.g. FishMessaging**  
Enter the name of the Messaging service. For example: FishMessaging.
- d. **Enter the name for the License Manager Windows Service e.g. SpeechStorm License Manager**  
Enter the name of the SpeechStorm License Manager. For example: "SpeechStorm License Manager". Note that quotes are necessary, as the name uses spaces.
- e. **Would you like to delete the SpeechStorm Platform directory? (Y/N)**  
Enter y to remove all contents in the Platform directory, **which you previously backed up to a different folder location**.

## Create the directory structure and prepare the environment

1. Go to **C:\SpeechStorm** and remove all files - including the **Setup** folder, which contains install and uninstall batch files.
2. Copy the installer zip file to this machine.
3. Unzip the installer file into the existing **C:\SpeechStorm** folder on this machine. Ensure the folder structure is exactly as follows, without any additional directory levels:
  - **C:\SpeechStorm\Platform\..**

- C:\SpeechStorm\Setup\..

4. Update the database connection details in the **database.properties** file to point to your existing databases that will be used for this install. The **database.properties** files are set per Tomcat instance and are found in the following locations.

- C:\SpeechStorm\Platform\TomcatGUI\lib\database.properties
- C:\SpeechStorm\Platform\TomcatVUI\lib\database.properties
- C:\SpeechStorm\Platform\TomcatMessaging\lib\database.properties

Optionally, you can use your existing **database.properties** files that you **backed up earlier in this process** and overwrite the files created by the installer. If so, proceed to the next step after you overwrite the **database.properties** files with your backup files. If you do not want to use your backup **database.properties** files, continue with the instructions in this step. Inside each **database.properties** file are template connection strings for SQL and Oracle, with the Oracle connection string commented out. You must update these details to match your environment. Ensure you only uncomment one set of connection strings (for example, if you are using SQL, make sure Oracle is commented out).

#### SQL Example

```
#####
#
# SQL Server 2008
#
#####
Database.JDBC.Driver=com.microsoft.sqlserver.jdbc.SQLServerDriver
Database.JDBC.ConnectionURL=jdbc:sqlserver://localhost:1433;Database=fish;Trusted_Connection=False;loginTim
Database.JDBC.Username=speechstorm
Database.JDBC.Password=speechstorm
Database.Pool.ConnectionValidationQuery=SELECT 1

ReportsDatabase.JDBC.Driver=com.microsoft.sqlserver.jdbc.SQLServerDriver
ReportsDatabase.JDBC.ConnectionURL=jdbc:sqlserver://localhost:1433;Database=fishreports;Trusted_Connection=
ReportsDatabase.JDBC.Username=speechstorm
ReportsDatabase.JDBC.Password=speechstorm
ReportsDatabase.Pool.ConnectionValidationQuery=SELECT 1
```

#### Oracle Example

```
#####
#
# Oracle 11g
#
#####
Database.JDBC.Driver=oracle.jdbc.OracleDriver
Database.JDBC.ConnectionURL=jdbc:oracle:thin:@localhost:1521:xe
Database.JDBC.Username=C##fish_USER
Database.JDBC.Password= speechstorm
Database.Pool.ConnectionValidationQuery=SELECT 1 FROM DUAL

ReportsDatabase.JDBC.Driver=oracle.jdbc.OracleDriver
ReportsDatabase.JDBC.ConnectionURL=jdbc:oracle:thin:@localhost:1521:xe
ReportsDatabase.JDBC.Username=C##fishreports_USER
ReportsDatabase.JDBC.Password= speechstorm
ReportsDatabase.Pool.ConnectionValidationQuery=SELECT 1 FROM DUAL
```

5. Restore the **log4j.properties** files that you **backed up earlier**. You must place each file in the same directory from which it was backed up. The locations are:

- C:\SpeechStorm\Platform\TomcatGUI\webapps\fish-gui\WEB-INF\classes

- C:\SpeechStorm\Platform\TomcatVUI\webapps\fish-vui\WEB-INF\classes
- C:\SpeechStorm\Platform\TomcatMessaging\webapps\fish-messaging\WEB-INF\classes
- C:\SpeechStorm\Platform\TomcatMessaging\webapps\fish-loadbalancer\WEB-INF\classes

### Tip

Remember the **step above** about noting server ID numbers? We will use this information in the step below.

6. Restore the **\*.local.properties** files that you **backed up earlier in this process**. You must place each file in the same directory from which it was backed up. The locations are:

- **C:\SpeechStorm\Platform\TomcatGUI\lib\fish-gui-local.properties**
- **C:\SpeechStorm\Platform\TomcatVUI\lib\fish-vui-local.properties**
- **C:\SpeechStorm\Platform\TomcatMessaging\lib\fish-loadbalancer-local.properties**
- **C:\SpeechStorm\Platform\TomcatMessaging\lib\fish-messaging-local.properties**

These files must contain information similar to the following: **ThisServer.ID=#** (where **#** is replaced by the server ID that you **noted earlier**).

## Install GAAP components

Navigate to **C:\SpeechStorm\Setup**, right-click on **SS\_FW\_Install.bat** and select **Run as Administrator**.

### Warning

You must select **Run as Administrator** or the services will be installed with insufficient privileges.

**SS\_FW\_Install.bat** sets the paths for Java and Catalina home, creates self-signed certificates for HTTPS, and creates services in Windows to start automatically for the GAAP software and Flex licensing component.

During execution, the batch file prompts you to select different options depending on your environment.

1. **Enter the path to the Platform folder e.g. C:\SpeechStorm\Platform :**

Enter the path to where you created the SpeechStorm folder and unzipped the installer. For example, C:\SpeechStorm\Platform.

### Important

This path is case sensitive. If incorrect, the installer prompts you to enter the path again.

#### 2. **Would you like to install a GUI server? (Y/N)**

Answer y or n and press Enter.

This option asks if you want to run a GUI (administrator) web application on this machine. Choose this option if this machine will be used for authoring call flows, viewing reports, and general setup. You must have at least one GUI per installation. If this is a single-server install, you must install this component now. If this is a multi-server install, you must choose at least one machine on which to install the GUI instance.

#### 3. **Would you like to install a VUI server? (Y/N)**

Answer y or n and press Enter.

This option asks if you want to run a VUI (call-handling) web application on this machine. A VUI handles customer calls, and in a production environment there might be several VUIs that service calls. If this is a single-server install, you must install this component now. If this is a multi-server install, you can choose which machines on which to install VUI instances. Generally, companies install one VUI per server, as this is the component that handles calls and is the most commonly clustered component.

#### 4. **Would you like to install a Messaging server? (Y/N)**

Answer y or n and press Enter.

This option asks if you want to install a messaging server and load balancer. These are specifically for visual IVR and Facebook Messenger.

#### 5. **Now we will generate and install the certificate for the GUI.**

Please enter the server FQDN or Fully Qualified Domain Name.

Enter the computer's FQDN to generate a self-signed SSL certificate for the GUI. This value is case sensitive.

After the installer generates a self-signed SSL certificate, you can view it in the following location:  
**C:\SpeechStorm\Platform\TomcatGUI\conf.**

#### 6. **Enter the phrase for speechstorm.key**

Enter the password to create the self-signed certificate for the GUI.

The installer asks you to enter this password three times. Ensure you remember this password, as it will be used **later in this install.**

#### 7. **Setting up the Windows service for TomcatGUI.**

Enter the name for the TomcatGUI Windows Service e.g. FishGUI:

Genesys recommends FishGUI.

If you chose to install a GUI server on this machine, the installer asks you to select a unique name for the Windows Service. Genesys recommends the name **FishGUI**. After you enter this name, the installer creates a Windows Service set to automatically start.

**8. Now we will generate and install the certificate for the Messaging server.**

Please enter the server FQDN or Fully Qualified Domain Name.

Enter this computer's FQDN to generate a self-signed SSL certificate for the Messaging server. After the installer generates a self-signed SSL certificate, you can view it in the following location: **C:\SpeechStorm\Platform\TomcatMessaging\conf**.

**9. Enter the phrase for speechstorm.key messaging key.**

Enter the password to create the self-signed certificate for the Messaging server.

The installer asks you to enter this password three times. Ensure you remember this password, as it will be used **later in this install**.

**10. Setting up the Windows service for TomcatMessaging**

Enter the name for the TomcatMessaging Windows Service e.g. FishMessaging:

Genesys recommends FishMessaging.

If you chose to install a Messaging server on this machine, the installer asks you to select a unique name for the Windows Service. Genesys recommends the name **FishMessaging**. After you enter this name, the installer creates a Windows Service set to automatically start.

**11. Setting up the Windows service for TomcatVUI**

Enter the name for the TomcatVUI Windows Service e.g. FishVUI:

Genesys recommends FishVUI.

If you chose to install a VUI server on this machine, the installer asks you to select a unique name for the Windows Service. Genesys recommends the name **FishVUI**. After you enter this name, the installer creates a Windows Service set to automatically start.

**12. Note: Make sure you modify the database.properties file for all Tomcat's for connection to MSSQL environment**

This note reminds you to update the **database.properties** file to reflect the configuration of your environment.

**13. Installing License Server...**

The installer is implementing the Flex licensing component as a Windows Service set to automatically start. This is required to license GAAP and a valid license must be imported into Flex before GAAP starts.

**14. Populating Database...**

Database scripts execute **Migrate.bat** and **Post Migrate.bat** to set up the database schema for GAAP.

### Important

- **Migrate.bat** only needs to run one time per installation, as all servers connect to this central database. If you have already ran this script during an install on another machine, you can quit the script.
- **You must only run Post Migrate.bat if this is the last server installation. DO NOT execute post-migrate activities until you update the last server.**

Run **SS\_FW\_Install.bat** again on all other machines used for GAAP in your environment.

## Use Flex to license GAAP server

Next, you must license the GAAP server within Flex before you can start the GAAP services. To do this, you need a license file. Either:

- Use the license file that you **backed up** earlier in this process. (For example, **C:/<Backup\_Location>/Platform/Apps/Flex/licenses/**).
- Use a new license file that was provided to you by Genesys.

### Important

License files are explicitly generated using the MAC address of the machines intended for the installation. License files cannot be used on a different machine.

1. Open Windows Services using one of the following methods in Windows:
  - Open the Start menu, click **Search**, and enter Services.
  - Open the Control Panel and select **Services**.
2. In Windows Services, right-click on **SpeechStorm License Manager** and select **Start**.
3. After the service initializes, open a web browser and navigate to <http://localhost:8090> to open the Flex web interface. Click on the **Administration** tab and use the following login:
  - Username: admin
  - Password: 123456789
4. After logging in, click **Vendor Daemon Configuration** to display a list of licenses. For the single entry in the list, click **Delete**.
5. Click **Import License** to upload the license file specific for this machine. Ensure you enable the **Overwrite License File on License Server** check box. After you import the file, check the list of licenses again. If the import is successful, the list displays your license with a status of **Up**.

## Copy connector settings

Next, you must copy the connector settings from your backup **server.xml** files into the new files created by the GAAP installer. In each backup **server.xml** file, copy:

- the HTTP connector settings
- (If applicable) the HTTPS connector settings. Ensure the HTTPS connector section contains the key **SSLPassword** and the password matches the one you specified when generating the SSL certificates in one of the following steps:
  - **GUI server**
  - **Messaging server**

Paste the contents of these sections into the **server.xml** files created by the GAAP installer. In most environments, these files are in the following locations:

- **C:\SpeechStorm\Platform\TomcatGUI\conf\server.xml**
- **C:\SpeechStorm\Platform\TomcatVUI\conf\server.xml**
- **C:\SpeechStorm\Platform\TomcatMessaging\conf\server.xml**

You can toggle the following sections to see examples of connector sections:

### [+] Click to show HTTP connector example

```
<Connector port="8080" protocol="HTTP/1.1"
    connectionTimeout="20000"
    redirectPort="8443"
        URIEncoding="UTF-8"
        maxThreads="500"
    />
```

### [+] Click to show HTTPS connector example

```
<Connector port="8443" protocol="HTTP/1.1" SSLEnabled="true"
    maxThreads="500" scheme="https" secure="true"
    clientAuth="false" sslProtocol="TLS"
        SSLCertificateFile="${catalina.base}/conf/speechstorm.cer"
        SSLCertificateKeyFile="${catalina.base}/conf/speechstorm.key"
        SSLPassword="password"
        URIEncoding="UTF-8"
    />
```

## Start GAAP services

In Windows Services, start the following services:

- Apache Tomcat 7.0 FishGUI

- Apache Tomcat 7.0 FishMessaging
- Apache Tomcat 7.0 FishVUI

## Create SSL certificates

### Important

Genesys recommends that you create new SSL certificates to ensure your environment uses the latest security enhancements. Contact your Genesys representative if you prefer to use the SSL certificates from a prior GAAP release.

1. Log in to GAAP.
2. Go to **Administration > Certificates**.
3. Click **Import a new Certificate**.
4. Perform the following actions:
  - For each GUI and Messaging server:
    - a. Enter the host name of the server and the SSL port configured in the **server.xml** file for that server.
    - b. Click **Get Certificate**.
    - c. Enter a description for the certificate.
    - d. Click **Save**.
  - For each VUI server:
    - a. Click **Create a Self Signed Certificate**.
    - b. Enter the following information:
      - **Server(s)** - FQDN of the VUI server.
      - **Pass Phrase** - Enter a secure pass phrase. This value must match the **SSLPassword** value from the **server.xml** file for this VUI Tomcat server.
      - **Add to Trusted Certificates List** - Ensure this option is checked.
      - (Optional) Enter information in the **Organisation Unit**, **Organisation**, **City**, **State**, and **Two-Letter Country Code** fields.
    - c. Click **Generate**.
    - d. A ZIP file downloads to the machine that contains a certificate and key. Extract the certificate and key, and place the files into the **conf** folder of the VUI server (for example, **C:\SpeechStorm\Platform\TomcatVUI\conf\server.xml**).



## Copy resources from previous version

Copy resources from the previous version of GAAP to the new version.

1. Copy **C:\<BackupFolder>\Platform\TomcatVUI\webapps\fish-vui\resources** to **C:\<InstallFolder>\Platform\TomcatVUI\webapps\fish-vui\resources**.
2. Copy **C:\<BackupFolder>\Platform\TomcatGUI\webapps\fish-gui\products** to **C:\<InstallFolder>\Platform\TomcatGUI\webapps\fish-gui\products**.

Next, return to Windows Services and restart the TomcatVUI.

## Reintegrate this GAAP server

You have upgraded the server and copied resource files from your previous GAAP version to the upgraded version. Next, you must reintegrate this server into the active servers group.

1. Open a web browser and enter `https://localhost:8080/fish-gui/Login.jsp`.
2. Login to GAAP.
3. Go to **Administration > Servers**.
4. Select the VUI that you just upgraded and click **Edit**. A server details screen appears.
5. Enable the **Server Status** check box, thereby making the server active. The VUI server's flag turns to green and it is available to take calls again.
6. Monitor the GAAP logs for this instance to ensure it is processing calls as expected.

You can now update the remaining servers in your environment by following all of the steps previously described on this page. Remember to only run **Post Migrate.bat** on the last server that you upgrade.

## Final Setup

### Warning

Do not proceed unless you have upgraded all servers in your environment.

1. If you installed a Messaging server, expand the toggle below. Otherwise, continue to the next step.  
**[+] Click to show section**

Go to **Administration > Clusters** and click **Create a new Cluster**. In the **New Cluster Type:** pop-up, select **New Load Balancer Cluster**. In the next screen, enter the following information:

- **Cluster Name** - Specify a unique name.

- **Load Balancer Servers Will Balance Requests Arriving at This Port** - Select **http** and a port number that is not used by anything else on this machine.
- **Hostname Used in External Links to this Cluster** - Specify the machine's host name.
- Click **Save**.

Go to **Administration > Servers**. If there is no Load Balancer server, click **Create a New Server**. In the **New server type:** pop-up, select **New Load Balancer Server**. In next screen, enter the following information:

- **Server Name** - Specify a unique name.
- **Server Connection Details** - Specify a server name and port number.

### Important

By default, the port number by **8081**. To verify, open C:\SpeechStorm\platform\TomcatMessaging\conf\server and check the value for **Connector port**.

- **Cluster** - Select the cluster you created in **Administration > Clusters**.
  - **Server Status** - Enable the **Active** check box.
  - Click **Save**.
2. Restart GAAP services, including FishGUI and FishMessaging. Do not restart FishVUI.
  3. After the services restart, log in again and go to **Administration > Servers**. Ensure all components are online.