Genesys App Automation Platform Deployment Guide

Genesys Intelligent Automation 3.6.0

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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 3.6.000.05 (also known as *Oz*).

Who should use this document?

The intended audience for this document are users responsible for deploying GAAP and associated components in the customer environment.

What is in this document?

This document explains the following topics:

- Hardware and Software Specifications - Provides information on required hardware and software to support the GAAP installation.
- Pre-Installation Checklist - Lists steps you must complete before installing GAAP.
- New Installation - Provides information in installing a new instance of GAAP.
- Existing Installation - Provides information on upgrading an existing instance of GAAP.
- Post-Installation Configuration - Lists steps you must complete after installing GAAP.

Hardware and Software Specifications

This page documents standard specifications for installing GAAP software.

- Hardware specifications
- Software specifications
- IVR specifications
- Supported standards and protocols
- High Availability (HA) architecture

Hardware

See below for standard server specifications for installation of the GAAP software.

The Voice User Interface (VUI) server supports the runtime application that serves customer calls. This number of servers and their specification should be dimensioned based on the number of concurrent calls, or *ports*, of IVR to be supported.

The Graphical User Interface (GUI) server provides the Control Centre application that is used to design, configure, deploy, and monitor callflows. Only one GUI server can be active at a time. The specification for this does not depend on the number of IVR ports.

Specification	VUI < 100 Ports	VUI 250 Ports	VUI 500 Ports	GUI server
CPU	1 quad core (2.2GHz+)	2 quad core (2.2GHz+)	2 quad core (3.0GHz+)	1 quad core (2.2GHz+)
Memory	8GB RAM	8GB RAM	12GB RAM	8GB RAM
Network	2x GB NIC	2x GB NIC	2x GB NIC	2x GB NIC
Disk Space	60GB	60GB	60GB	60GB

Virtualization

GAAP is fully supported on VMware ESXi 4 and above. If you prefer to deploy on virtual infrastructure, the following standard server specifications must be provisioned.

Specification	VUI < 100 Ports	VUI 250 Ports	VUI 500 Ports	GUI server
Physical CPU	1 quad core (2.2GHz+)	2 quad core (2.2GHz+)	2 quad core (3.0GHz+)	1 quad core (2.2GHz+)
Physical Memory	16GB RAM	16GB RAM	16GB RAM	16GB RAM
Network	2x GB NIC	2x GB NIC	2x GB NIC	2x GB NIC
Disk Space	60GB	60GB	60GB	60GB

Specification	VUI < 100 Ports	VUI 250 Ports	VUI 500 Ports	GUI server
vWare	• 2x vCPU • 8GB vRAM	• 4x vCPU • 8GB vRAM	• 4x vCPU • 12GB vRAM	• 2x vCPU • 8GB vRAM

Notes

- Standard server specifications are for installation of the GAAP Voice User Interface (VUI) and Graphical User Interface (GUI) components only on separate servers. It is assumed that the database will be located on its own server.

- You must procure, supply and configure third-party software for functions such as as Automatic Speech Recognition (ASR) and Text-to-Speech (TTS).

- You can increase the number of available ports by increasing the number of servers.

- High availability requires n*2 servers deployed across a minimum of two physical machines.

- Disk space requirements are sized for the storage volume/drive on each server to be available for the installation of GAAP and associated files and folders. It does not include sizing for the operating system or other system software.

Software

You must ensure the following components are installed on the servers outlined below before you install the GAAP software.

Server VUI	Component	Version
GAAP Server (VUI)	Operating System	• Windows Server 2012 R2 – 64 bit Standard Edition • Windows Server 2008 R2 – 64 bit Standard Edition
	Application Servers	Tomcat 7.0.61 – 64 Bit
	Web Browser	• Windows 7 – IE 11 - v11.0.9600.18426 u11.0.34 • Microsoft Edge - v25.10586.0.0 • Chrome - v52.0.2743.116 m • Firefox -v48.0
	Java JDK	1.8 - 64 Bit

Server VUI	Component	Version
Database Servers	MS SQL Server	• MS SQL Server 2008 R2 Standard Edition - 10.50.2550.0 • MS SQL Server 2012 Standard Edition - 11.0.5058.0
	Oracle 11g	• Oracle 11g Release 11.2.0.1.0 - Standard Edition • Oracle 12c Release 12.1.0.2 - Standard Edition
GAAP Server (GUI)	Operating System	• Windows Server 2012 R2 – 64 bit Standard Edition • Windows Server 2008 R2 – 64 bit Standard Edition
	Application Servers	Tomcat 7.0.78 – 64 Bit
	Web Browser	• Windows 7 – IE 11 - v11.0.9600.18426 u11.0.34 • Microsoft Edge - v25.10586.0.0 • Chrome - v52.0.2743.116 m • Firefox -v48.0
	Java JDK	1.8 – 64 Bit
Database Servers	MS SQL Server	• MS SQL Server 2008 R2 Standard Edition - 10.50.2550.0 • MS SQL Server 2012 R2 Standard Edition - 11.0.5058.0
	Oracle 11g	• Oracle 11g Release 11.2.0.1.0 - Standard Edition • Oracle 12c Release 12.1.0.2 - Standard Edition

IVR technologies and platforms

The GAAP Framework supports enterprise-scale Interactive Voice Response (IVR) technologies and platforms. The GAAP Framework is supported on the following combinations of components.

Vendor	Component	Version(s)
Genesys	GVP Media Control Platform	8.5.120.66
Genesys	GVP Resource Manager	8.5.120.62
Nuance	Recognizer	10.2.6.2014101615 x86_64 - Package revision 14289
Nuance	Vocalizer	6.0.4.2014102404

Vendor	Component	Version(s)
Genesys	GVP Media Control Platform	8.1.700.44
Genesys	GVP Resource Manager	8.1.700.61
Nuance	Recognizer	9.0.14.2010062422
Nuance	Vocalizer	5.0.3.2010071919

| Vendor	Component	Version(s)
Genesys	GVP Voice Platform Common	7.6.485.14
Genesys	GVP IP Communications Server	7.6.485.06
Nuance	Recognizer	9.0.14.2010062422
Nuance	Vocalizer	5.0.3.2010071919

Standards and Protocols

The GAAP Framework supports industry-defined open standards and protocols. The following standards and protocols are supported.

Standard	Version	Description
Voice Extensible Markup Language (vXML)	2.1	Standard for designing phone-based application dialogs with callers.
Speech Recognition Grammar Specification (SRGS)	1.0	Standard to define syntax for representing grammars for use in speech recognition.
Semantic Interpretation for Speech Recognition (SISR)	1.0	Client-side grammar logic to validate grammars.
HTTP and HTTPS	1.1	Secure management of communication of data between GAAP and external sources.

GAAP Framework high-availability (HA) architecture

Refer to the following graphic for a deployment example of GAAP Framework and validated Microsoft SQL Server architecture in high-availability (HA).
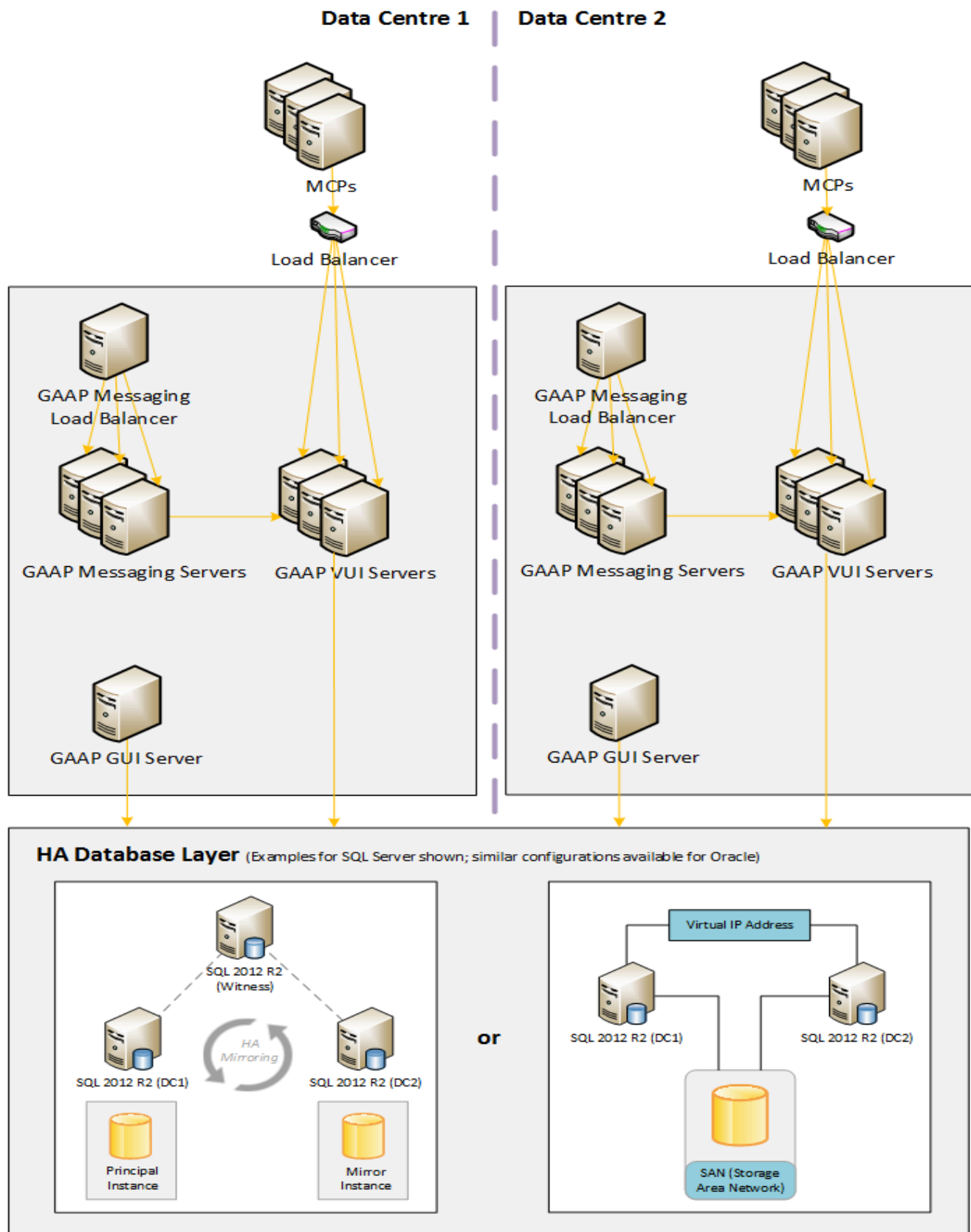
Pre-Installation Checklist

This page lists requirements you must complete before installing Genesys App Automation Platform (GAAP). It is recommended you print this page (click the link in the Table of Contents to the left of this page to generate a PDF) and have the installer sign off on each requirement.

After you install GAAP, be sure to complete the post-installation configuration.

On-site installation requirements

Task	Completed and tested by
A dedicated desktop/laptop computer has been made available for the GAAP consultant to perform the installation. This computer must be able to access all servers required.	

Remote installation requirements

Task	Completed and tested by
Remote access has been set up and tested, and details have been forwarded to the GAAP consultant.	
The GAAP consultant has been provided with third-party software (for example, a VPN client) required to connect remotely.	

Genesys and GVP requirements

Task	Completed and tested by
The GVP, ASR and TTS versions has been made available, as per the Hardware and Software Specifications page.	
If TTS or ASR is required, it has been installed, configured, and fully tested.	
Genesys GVP has been installed, configured, and has successfully handled test calls (including ASR and TTS, if required) to confirm it is fully functional.	
A Genesys resource has been made available to configure GVP to route calls to GAAP after the installation in order for basic testing to be	

Task	Completed and tested by
completed.	
A Genesys resource has been made available to troubleshoot any GVP issues encountered.	
Genesys routing and required attached data (if applicable) has been configured to support the requirements.	
Externally accessible DID test numbers has been made available and configured to allow the GAAP consultant to dial into the environment.	
If using multimodal functionality, Genesys ORS has been installed and configured.	

Microsoft SQL Server requirements

> **Important**
> This section is only required if you want to use Microsoft SQL Server for the database layer.

Task	Completed and tested by
The Microsoft SQL Server 2008/2012 R2 database environment is ready and has been tested for the GAAP consultant to access and install GAAP.	
Microsoft SQL Server has been configured and tested to allow TCP/IP connections and to allow non-Windows users (**SQL Server authentication**).	
Microsoft SQL Server Management Studio has been installed on at least one GAAP server per environment (for example, one for the test environment and one for the production environment).	

Two databases (**fish_core** and **fish_reports**, for example) have been created and the following steps applied to each database:
 	
• The **ALLOW_SNAPSHOT_ISOLATION** setting set to **ON**. For example:
 	
`alter database fish set ALLOW_SNAPSHOT_ISOLATION ON;`
`alter database fishreports set ALLOW_SNAPSHOT_ISOLATION ON;`
 	
• A SQL server authentication user has been created and the allocated account also has ownership of both databases. You can confirm these settings by connecting to the database using SQL Server Management Studio. In the left panel, navigate to **Security > Logins**. Right-click the appropriate user and select **Properties > User Mapping**. Ensure **db_owner** is enabled for both databases.	

To accommodate future migration of the reports schema, Genesys recommends that the transaction log file(s) are configured to be at least as big as the data file(s), and that both are set to auto-grow. The size of these files should be monitored periodically and regular backups scheduled in order to better manage the transaction log(s).	

Oracle requirements

Important

This section is only required if you want to use Oracle for the database layer.

Task	Completed and tested by
The Oracle 11g/12c database environment is ready and has been tested for the GAAP consultant to access and install GAAP.	
Oracle SQLDeveloper has been installed on at least one GAAP server per environment (for example, one for the test environment and one for the production environment).	

Two databases (**fishcore** and **fishreports**, for example) have been created as follows:
 	
Oracle 11g
 	
`CREATE BIGFILE TABLESPACE fishcore        DATAFILE 'fishcore.dbf'        SIZE 20M AUTOEXTEND ON;`
`CREATE BIGFILE TABLESPACE fishreports     DATAFILE 'fishreports.dbf'     SIZE 20M AUTOEXTEND ON;`
`CREATE USER C##fishcore        IDENTIFIED BY yourpasswordhere DEFAULT TABLESPACE fishcore;`
`CREATE USER C##fishreports     IDENTIFIED BY yourpasswordhere DEFAULT TABLESPACE fishreports;`
`GRANT "RESOURCE" TO C##fishcore;`
`GRANT "RESOURCE" TO C##fishreports;`
`GRANT "CONNECT" TO C##fishcore;`
`GRANT "CONNECT" TO C##fishreports;`
`GRANT CREATE ANY VIEW TO C##fishcore;`
`GRANT CREATE ANY VIEW TO C##fishreports;`
`GRANT INSERT ANY TABLE TO C##fishcore;`
`GRANT INSERT ANY TABLE TO C##fishreports;`
`GRANT UNLIMITED TABLESPACE TO C##fishcore;`
`GRANT UNLIMITED TABLESPACE TO C##fishreports;`
`GRANT SELECT_CATALOG_ROLE to C##fishcore;`
`GRANT SELECT_CATALOG_ROLE to C##fishreports;`
`GRANT SELECT ANY DICTIONARY to C##fishcore;`
`GRANT SELECT ANY DICTIONARY to C##fishreports;`
 	
Oracle 12c
 	
`CREATE BIGFILE TABLESPACE fishcore DATAFILE 'fishcore.dbf' SIZE 20M AUTOEXTEND ON;`
`CREATE BIGFILE TABLESPACE fishreports DATAFILE 'fishreports.dbf'`	

Task	Completed and tested by
| ```
SIZE 20M AUTOEXTEND ON;
CREATE USER fishcore IDENTIFIED BY yourpasswordhere DEFAULT
TABLESPACE fishcore;
CREATE USER fishreports IDENTIFIED BY yourpasswordhere DEFAULT
TABLESPACE fishreports;
GRANT "RESOURCE" TO fishcore;
GRANT "RESOURCE" TO fishreports;
GRANT "CONNECT" TO fishcore;
GRANT "CONNECT" TO fishreports;
GRANT CREATE ANY VIEW TO fishcore;
GRANT CREATE ANY VIEW TO fishreports;
GRANT INSERT ANY TABLE TO fishcore;
GRANT INSERT ANY TABLE TO fishreports;
GRANT UNLIMITED TABLESPACE TO fishcore;
GRANT UNLIMITED TABLESPACE TO fishreports;
GRANT SELECT_CATALOG_ROLE TO fishcore;
GRANT SELECT_CATALOG_ROLE TO fishreports;
GRANT SELECT ANY DICTIONARY TO fishcore;
GRANT SELECT ANY DICTIONARY TO fishreports;
``` | |
| A SYS user has executed the following command in Oracle:<br><br>```
ALTER SYSTEM SET open_cursors = 600 scope=both;
``` | |

Server requirements

Task	Completed and tested by
The servers have been built as per the Hardware and Software Specifications page.	
All server details—such as hostnames and IP addresses for all relevant servers, including GVP, GAAP, and the database environment—have been provided to the GAAP consultant.	
Login information has been provided to the GAAP consultant for all relevant computers and servers, including Active Directory (if used) and database servers.	
Administrative privileges on the GAAP server(s) have been configured to allow the GAAP consultant to install, test, and troubleshoot.	

Project-specific requirements

Task	Completed and tested by
Test data for the GAAP consultant to test the IVR application after installation has been provided, including (if applicable) valid card payment details for testing of the payment gateway and all other web services.	
All third-party components required as part of the solution have been installed, configured, tested, and available to integrate before the installation of GAAP.	

Firewall requirements

The following table lists the main firewall rules that are required for GAAP to function. Some customers might have additional requirements. Additionally:

- The port numbers referenced in the table below reflect common configuration as documented elsewhere in this guide. You must update these port numbers if your environment uses non-default port numbers.

- This table does not include standard firewall requests for scenarios such as remote desktop – it is assumed that the customer has already enabled these rules.

Rule	Ports	Completed and Tested by
Communication from the customer site to the GAAP FTP server for downloading installation files. Server details are: • Host Name: **ftp.speechstorm.com** • Port Number: **22** • File Protocol: **Secure FTP (SFTP)** • Username: *Will be supplied by Genesys* • Password: *Will be supplied by Genesys* **Important** Access to the FTP site does not need to originate from the GAAP servers, but you must have a method of transferring files from the FTP site onto the GAAP servers.	22 for Secure FTP (SFTP)	
Inter-Communication between all GAAP servers	• 80, 8080–8089 for HTTP traffic • 443, 8443-8449 for HTTPS traffic	
Communication between Genesys environment and all GAAP VUI servers	• 80, 8080–8089 for HTTP traffic • 443, 8443-8449 for HTTPS traffic	
Communication between ASR and TTS environment and GAAP servers	• 80, 8080–8089 for HTTP traffic • 443, 8443-8449 for HTTPS traffic	
Communication between database environment and GAAP servers	The SQL Server Port: Usually 1433, but to be confirmed by the customer.	
Communication between all GAAP servers and customer integration/backend systems	Ports to be confirmed by the customer.	
Communication between all GAAP servers and customer SMTP server (see post-installation configuration for more details).	Ports to be confirmed by the customer.	

Rule	Ports	Completed and Tested by
Communication between all GAAP servers and customer SNMP Manager (see post-installation configuration section for more details). **Important** This is optional and only required if you want to use the trap-sending functionality provided by GAAP.	Ports to be confirmed by the customer.	
Communication between all GAAP servers and customer SYSLOG/Centralized Logging server (see post-installation configuration section for more details). **Important** This is optional and only required if you want to use the SYSLOG functionality provided by the Log4j component within GAAP.	Ports to be confirmed by the customer.	

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 **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 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 **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;loginTimeout=1
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=False;loginTimeout=1
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 and remove the *.rar* extension from the file.

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 **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

    a. 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.

    b. 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.

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**.

   In Windows Services, right-click **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 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 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**.

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**.

Next Step

Go to Post-Installation Configuration to complete setup.

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.

- If using an Oracle database, a SYS user has modified the *open_cursors* setting as documented in the Pre-Installation Checklist.

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 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:\SpeechStrorm\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;loginTimeout=1
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=False;loginTimeout=1
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.

7. (Optional) If your GAAP environment uses the Integration Hub, copy the file **indy-keys.properties** from the backup folder to **C:\SpeechStorm\Platform\TomcatIntegration\webapps\fish-integration\ WEB-INF\classes\indy-keys.properties**.

Install GAAP components

Navigate to **C:\SpeechStorm\Setup**, right-click **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 **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 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.

Next Step

Go to Post-Installation Configuration to complete setup.

Post-Installation Configuration

After installing Genesys App Automation Platform (GAAP), you must configure some of the administration settings to suit your business needs.

It is recommended you print this page (click the link in the Table of Contents to the left of this page to generate a PDF) and sign off on each step.

CTI Data

GAAP has the capability to store some attached-data variables in its reporting database (usually used for custom reports). As the space is limited, GAAP can configure regular-expression patterns to exclude or include data. By default, the patterns are empty, which means all attached data will be saved. If the data to be saved is bigger than the space available in the database, the data is truncated (in no particular order).

Setting Name	Description	Default Value	Your Value
CLIData.Mobiles.Prefix	A value indicating the prefix of a mobile number.	07	
VuiPreferences.Defaults.store_cti_fields_in_reporting_data	A Boolean value to indicate if GAAP is to store CTI fields in reporting data.	true	
CTI.FieldsToStoreInReporting.ExcludePattern	Exclusion pattern. The default value is blank, but you can set a new value that suits your business needs (for example, **^ROUTING.*$**).	None	
CTI.FieldsToStoreInReporting.IncludePattern	Inclusion pattern. The default value is blank, but you can set a new value that suits your business needs (for example, **^(AccountNumber|CustomerID)$**).	None	

Database Overnight Jobs

To increase database performance, GAAP performs an overnight (or quiet period) job that consists of the following main tasks:

- Archiving old report data into historical tables. These historical tables are still referenced in reports and database views.

- Delete historical data that is older than the specified number of days.

Setting Name	Description	Default Value	Your Value
DBOvernightJobs.NumDaysHistoricalDataToKeep	The number of days of historical data to keep. If set to **-1**, no data is deleted.	90	

Email

GAAP must be able to send emails via an SMTP server (for example, to send password-reset emails).

Setting Name	Description	Default Value	Your Value
Email.SMTP.Host	The SMTP host that GAAP will use to send emails (for example, password-reset emails).	`mail.speechstorm.com`	
Email.SMTP.Port	The SMTP port of the host.	25	

GraphViz

You must update the default server setting that points to the location of GraphViz, which renders the callflow diagrams.

Setting Name	Description	Default Value	Your Value
GraphViz.DotPath	Path to GraphViz executable.	`C:/Program Files/Graphviz2.26/bin/dot.exe`	

SMS

You must configure the SMS gateway to use outbound SMS. The example below is for the Genesys Portico SMS Gateway:

Setting Name	Description	Default Value	Your Value
SMS.Carrier	The Carrier ID as allocated by the SMS gateway provider.	None	
SMS.DefaultFromNumber	The number that appears as the sender on the recipient's phone. This number often requires authorization by the SMS gateway.	None	
SMS.Host	Hostname of the SMS gateway.	None	
SMS.Method	HTTP method for calling the SMS Gateway (for example, POST).	None	
SMS.PlusSymbolBeforeRecipientNumber	Specifies whether to prefix an international + symbol to the recipient number.	None	
SMS.Port	Port of the SMS gateway.	None	
SMS.RequestBody	Body of the HTTP request (if required).	None	
SMS.RequestHeaders	Headers of the HTTP request (if required).	None	
SMS.Timeout	Time, in milliseconds, to wait for a response from the SMS gateway.	None	
SMS.URL	URL to the SMS gateway interface.	None	
SMS.User	Username of the SMS gateway account.	None	
SMS.Password	Password of the SMS gateway account.	None	

SNMP Traps

GAAP can generate SNMP traps. The configurations below are required if you intend to use SNMP traps; otherwise, continue to the next section.

Setting Name	Description	Default Value	Your Value
SNMP.Traps.Enabled	A Boolean value to indicate if SpeechStorm is to store CTI fields in reporting data.	`false`	
SNMP.Traps.ManagerHostname	The name of the SNMP manager.	`localhost`	
SNMP.Traps.ManagerPort	The SNMP manager port.	`162`	
SNMP.Traps.Community	The community name for SNMP traps. This setting is usually unchanged.	`public`	
SNMP.Traps.ServerHeartbeat.Enabled	A Boolean value to indicate if each GAAP server is to send heartbeat traps. **Important** The **SNMP.Traps.Enabled** setting must be set to **true** to use heartbeat traps.	`true`	
SNMP.Traps.ServerHeartbeat.FrequencySeconds	The frequency, in seconds, for when each GAAP server will send heartbeat traps.	`60`	

SYSLOG

SpeechStorm uses the log4j logging mechanism, which can send logs to a centralized logging server. You must complete this configuration only if you wish to use this feature.

Setting Name	Description	Default Value	Your Value
log4j.appender.SYSLOG.syslogHost	Set within the log4j.properties file on each GAAP instance. This value defines the hostname/IP address of the syslog server.	None	

WebIVR

For security purposes, WebIVR uses a default server setting to dictate from where it can be embedded. To launch WebIVR from the GUI for testing, or to use the Theme Preview function, you must add the GUI server(s) to the list of allowed domains.

Setting Name	Description	Default Value	Your Value
VisualIVR.Security.AllowedDomains	Hostname and port of the GUI server(s) from which WebIVR can be launched or embedded. For example: *http://FQDN:PORT*.	`http://localhost:8080`	