Genesys Rules System Deployment Guide

Configuring WebSphere Liberty in GRS 9.0

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Support for Java 8 in GRS release 9.0 means that previous WebSphere versions supported in Java 7 are not available. The only WebSphere available for Java 8 is WebSphere Liberty. Verification has been performed using version 8.5.5.7.

Configuring WebSphere Liberty to Run GRAT and GRE

1. Set the **JAVA_HOME** and **PATH** environment variables. These are used by the **./server** command.
2. Create the Liberty server by navigating to **[WAS Liberty Home]/bin** and executing the command **./server create grs**.
3. Navigate to **[WAS Liberty Home]/usr/servers/grs** and create a directory called **ExternalLibs**. Copy the JDT core .jar file to **ExternalLibs** from **[WAS Liberty Home]/lib**. The .jar file should be similar to **com.ibm.ws.org.eclipse.jdt.core.[version].jar**.
4. If GRAT is configured to use a database via a configuration Data Access Point, add the appropriate drive .jar in the **ExternalLibs** directory created above. Otherwise skip this step. For example, if using the PostgreSQL database, add a driver file like **postgresql-[version].jdbc4.jar** to the **ExternalLibs** directory.
5. Navigate to the **[WAS Liberty Home]/usr/servers/grs** directory and edit the **server.env** file to add **JAVA_HOME**. For example, if JAVA_HOME is `/usr/java8_64`, then add this line at the end of the file:

   ```
   JAVA_HOME=/usr/java8_64
   ```

6. Create file **jvm.options** in directory **[WAS Liberty Home]/usr/servers/grs** to set the JVM memory parameters—Genesys recommends using **the information here** to tune performance for GRE and GRAT.
7. Update the **server.xml** file (the server configuration file at **[WAS Liberty Home]/usr/servers/grs**) thus:
   a. Add **<webContainer deferServletLoad="false"/>** under the **<server>** element.
   b. Add **<applicationMonitor updateTrigger="disabled" />** under the **<server>** element.
   c. Add **host="*"** attribute to the **httpEndpoint** element if you want any hosts to be able to access this application.
   d. Add the following application elements under the root element (that is, the **<server>** element):

   ```
   <!-- GRAT Application: IMPORTANT! Remove classLoader element in below Application if
   not using an external database otherwise replace "[database driver file]" with the
   appropriate driver file name -->
   <application context-root="genesys-rules-authoring" type="war" id="genesys-rules-
   authoring"
          location="genesys-rules-authoring.war" name="genesys-rules-authoring">
          <classloader>
               <privateLibrary>
                         <file name="ExternalLibs/[database driver file].jar"
   id="databasedriver"></file>
                    </privateLibrary>
           </classloader>
   ```

```
</application>
<!-- GRE Application: IMPORTANT! Replace "[JDT core jar file name]" with the file
name -->
<application context-root="genesys-rules-engine" type="war" id="genesys-rules-engine"
       location="genesys-rules-engine.war" name="genesys-rules-engine">
       <classloader>
            <privateLibrary>
                      <file name="ExternalLibs/[JDT core jar file name].jar"
id="jdt"></file>
                </privateLibrary>
        </classloader>
</application>
```

> **Important**
>
> Make sure **<featureManager>** has only **<feature>jsp-2.2</feature>** and nothing else. Adding any other feature might interfere with the already existing libraries in the application.

5. For GRAT:
   a. Create directory **genesys-rules-authoring.war** under **[WAS Liberty Home]/usr/servers/grs/apps directory**.
   b. Extract the contents of the **genesys-rules-authoring.war** file into **genesys-rules-authoring.war** directory. Navigate to **genesys-rules-authoring.war** directory and execute command **jar -xvf [Path to GRAT .war]**.

3. For GRE:
   a. Create directory **genesys-rules-engine.war** under **[WAS Liberty Home]/usr/servers/grs/apps** directory.
   b. Extract the contents of the **genesys-rules-engine.war** file into **genesys-rules-engine.war** directory. Navigate to **genesys-rules-engine.war** directory and execute command **jar -xvf [Path to GRE .war]**.

3. Start the server by navigating to **[WAS Liberty Home]/bin** and executing EITHER command **./server run grs** OR command **./server start grs**.