Oracle® Insurance Calculation Engine

WebLogic Deployment
Installation Instructions – Step 2

Version 10.1.1.0

Document Part Number: E57245-01

September, 2014
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INTRODUCTION

The Oracle Insurance Calculation Engine (OICE) application and the Oracle Insurance Rules Palette form a solution for configuring, managing and processing policy data. Both applications, along with the Web Application Utility, must be installed and then configured to work together.

This install guide will cover step two of the installation process, in which the OICE application and the Web Application Utility are configured using Web Logic. Please refer to the OICE database installation instructions in the documentation library provided with the release to ensure the database is set up correctly.

Customer Support

If you have any questions about the installation or use of our products, please visit the My Oracle Support website: https://support.oracle.com, or call (800) 223-1711.

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Prerequisites

Before beginning the installation steps, you must have the following components:

- A server with a Windows or Linux operating system.
- WebLogic 11g (Version 10.3.6.0). It is recommended that the latest update of the Oracle 1.7 JDK be used. This can be downloaded from the Oracle Technology Network.
- Administrative rights to the server.
- Oracle Insurance Calculation Engine v10.1.1.0 Media Pack from The Oracle Software Delivery Cloud.
- Oracle Insurance Rules Palette V10.1.1.0 Media Pack from The Oracle Software Delivery Cloud. The Web Application Utility files are included in this Media Pack in the PaletteConfig folder.
**INITIAL SYSTEM CONFIGURATION**

**Database Driver Setup**

1. Create a directory on the WebLogic installation machine to store database driver jar files for OICE (i.e., `/opt/oracle/db_drivers/` or `C:\oracle\db_drivers\`).

2. Copy the database drivers for your database into this directory.
   - **Oracle 12.1** – The necessary driver, `ojdbc-11.2.0.2.jar`, is included in the `libs` directory of the OICE Media Pack.
   - **IBM DB2** – The two necessary .jar files (`db2jcc` and `db2jcc_license_cu`) are included with the purchase of the DB2 software. These files are not available for download. Contact your IT department if you need assistance locating these files.

**Note:** Each version of DB2 requires specific drivers. The files above correspond with DB2 10.1.
OICE Setup

1. Create a directory on the WebLogic server to store various configuration files for OICE (i.e., /opt/oracle/OICE/ or C:\oracle\OICE\).

2. Create subdirectories inside the directory from Step 1 called conf, libs and war.

3. Copy PASJava-weblogic.war file from the OICE distribution zip file into the war subdirectory and rename to PASJava.war

   Note: Extension classes/jars developed using OICE extension interfaces should be copied to PASJava-weblogic.war/WEB-INF/lib before copying PASJava-weblogic.war to the war subdirectory. This is required for the extensions to work.

4. Copy the following files from the properties files directory into the conf directory:
   - coherence-cache-config.xml
   - coherence-config.xml
   - PAS.properties

5. Copy the following files from the ext jars directory into the libs directory:
   - antlr-3.4.jar
   - commons-collections-3.2.1.jar
   - commons-logging-1.1.1.jar
   - el-api-2.2.jar
   - log4j-1.2.16.jar
   - spring-instrument-3.1.0.RELEASE.jar


   1. Open aspectj-1.6.11.jar with an unzipping software and retrieve aspectjrt.jar and aspectjweaver.jar from the lib folder.
   2. Copy aspectjrt.jar and aspectjweaver.jar into libs sub-directory.

7. Unzip the OICE distribution and again unzip opss_standalone.zip. Copy the .jars below to the libs folder.

   - o ..\opss_standalone\modules\oracle.pki_11.1.1\oraclepki.jar
   - o ..\opss_standalone\modules\oracle.osdt_11.1.1\osdt_cert.jar
   - o ..\opss_standalone\modules\oracle.osdt_11.1.1\osdt_core.jar

8. Unzip the OICE distribution and again unzip coherence.zip. Copy ..\coherence\lib\coherence.jar into the libs folder.

9. Use a text editor to open the PAS.properties file that you just copied to the server. The PAS.properties file contains properties for Oracle and DB2 database types, with the Oracle settings active by default. The inactive settings are commented out with a ‘#’ character at the start of each line. To change a
setting, remove the ‘#’ from the required property setting, and insert it at the beginning of the setting you want to de-activate.

10. The properties setting must match the type of database being used. The two properties that are used to do this are:

- application.databaseType
- jpa.databasePlatform

**Note:** Refer to the System Properties document in the Oracle Insurance Calculation Engine E57245_01 Documentation Library on the OTN for a complete list of all properties and allowed values.

11. Identify the default locale in the PAS.properties file. The locale selected will determine the translation that is loaded in the database for OICE when it launches.

- application.defaultLocale

12. If using an Oracle database, please skip this step. If using a DB2 database, you will need to modify the PAS.properties file to include configuration for case-insensitive searching:

- Modify the PAS.properties file to include the following line:
  
  `search.field.text.caseInsensitive=true`

### Web Application Utility Setup

1. Create a directory on the WebLogic server to store various configuration files for the Web Application Utility (i.e., /opt/oracle/paletteconfig/ or C:\oracle\paletteconfig/).

2. Create subdirectories inside the directory from Step 1 called **conf**, **libs**, **uploads** and **war**.

**Note:** Grant read-write-execute permissions on all these directories.

3. Copy the **PaletteConfig-waswl.war** file into the **war** subdirectory and rename to **PaletteConfig.war**.

4. Copy the **PaletteWebApplication.properties** file into the **conf** subdirectory.

5. Open the **PaletteWebApplication.properties** file and edit the **download.dir** property to point to the **uploads** subdirectory created in Step 2.
CONFIGURING WEBLOGIC

To configure WebLogic use the WebLogic Administration Console. By default the port number is 7001 and /console is the context root. Example: http://hostname:7001/console

Note: When selecting a menu option in the WebLogic Administrative Console, the names may differ depending on whether WebLogic is used in development mode or production mode.

Create a Machine

1. Select Environment>Machines>New.
2. Enter the name for the machine.
3. If the OS is not UNIX, select Other from the Machine OS drop-down list.
4. Click Next.
5. Click Finish.

Create and Configure OICE Server

Important: OICE and the Web Application Utility can exist on the same WebLogic server if necessary.

Create the OICE Server

1. Select Environment>Servers.
2. Click New.
3. Enter OICE for the name of the server.
4. Set the listener port to a port that is not used by any other application.
5. Click Next.

Add the OICE Server to the Machine

1. Select Environment>Machines.
2. Select the machine that was created.
3. Select the Servers tab.
4. Select Add.
5. Select the name of the OICE server created from the Select a server drop-down box.
6. Click **Finish**.

**Configure the OICE Server**

1. Select **Environment>Servers**.
2. Select the OICE server that was created.
3. Select the **Server Start** tab.
4. Specify the class path. The path names will vary depending on the configuration.

```
/opt/oracle/Middleware/wlserver_10.3/server/lib/weblogic.jar:/opt/oracle/OICE/conf:/opt/oracle/OICE/libs
/antlr-3.4.jar:/opt/oracle/OICE/libs/commons-collections-3.2.1.jar:/opt/oracle/OICE/libs/commons-
```

**Note:** If using WebLogic on Windows, then the separator for files/directories in the classpath is a semicolon.

5. Enter the following arguments. The path names will vary depending on the configuration. The memory settings can be altered for your needs as well.

```
-server -Xms512M -Xmx2048M -XX:PermSize=128M -XX:MaxPermSize=512M
-javaagent:/opt/oracle/OICE/libs/spring-instrument-3.1.0.RELEASE.jar
-Dtangosol.coherence.cacheconfig=/opt/oracle/OICE/conf/coherence-cache-config.xml
-Dtangosol.pof.config=com-adminserver-pas-web-pof-config.xml
-Dtangosol.coherence.override=/opt/oracle/OICE/conf/coherence-config.xml
-Dweblogic.wsee.skip.async.response=true
```

6. Select **Save**.
Create and Configure Web Application Utility Server

Create the Web Application Utility Server

1. Select Environment>Servers.
2. Click New.
3. Enter PaletteConfig for the name of the server.
4. Set the listener port to a port that is not used by any other application.
5. Click Next.

Add the Web Application Utility Server to the Machine

1. Select Environment>Machines.
2. Select the machine that was created.
3. Select the Servers tab.
4. Select Add.
5. Select the name of the Web Application Utility server created from the Select a Server drop-down box.
6. Click Finish.

Configure the Web Application Utility Server

1. Select Environment>Servers.
2. Select the PaletteConfig server that was created.
3. Select the Server Start tab.
4. Specify the class path. The path names will vary depending on the configuration.

```
/opt/Oracle/Middleware/wlservr_10.3/server/lib/weblogic.jar:/opt/oracle/paletteconfig/conf:/opt/oracle/db_drivers/ojdbc-11.2.0.2.jar
```

**Note:** The example lists the driver for the Oracle database. Make sure that the classpath refers to the correct drivers for DB2 as needed.

Make sure the classpath points to the correct directory for the Web Application Utility.

5. Enter the following arguments. This will vary depending on the configuration.
   -server -Xms256M -Xmx512M -XX:PermSize=128M -XX:MaxPermSize=256M
6. Select Save.
Create Data Sources

Create the Data Source for ADMINSERVERDS

1. Select Services> Data Sources for WebLogic 11g (10.3).

2. In the configuration section on the right, click New and Select Generic Data Source.

3. In the JDBC Data Source Properties pane that appears:
   a. Change the Name. This name can be anything, but has to be unique for the entire WebLogic server. If you have more than one OICE instance on the server, then each instance should have a unique name.
   b. Change the JNDI Name to ADMINSERVERDS. This name cannot be anything other than ADMINSERVERDS.
   c. Select the Oracle database type.
   d. Click Next.
   e. Keep the default driver.

4. Select Next.

5. Select Next again when Transaction options are displayed.

6. In the Connection Properties pane:
   a. Enter the Database Name.
   b. Enter the Host Name of the database server.
   c. Enter the Port number of the database server.
   d. Enter the Database user name. This can be obtained from the database administrator who installed the databases.
   e. Enter both password entries. This can be obtained from the database administrator who installed the databases.
   f. Select Next.
7. Test the database connection.

8. Select Next.

9. In the Select Targets pane that appears, check the box for the OICE application server. This links the data source to the server that was created.

10. Select Finish.
Create the Data Source for ADMINSERVERRESOURCEDS

1. Select Services> Data Sources.

2. In the configuration section on the right, click New and then Select Generic Data Source.

3. In the JDBC Data Source Properties pane that appears:
   a. Change the Name. This name can be anything, but has to be unique for the entire WebLogic server. If you have more than one OICE instance on the server, each instance should have a unique name.
   b. Change the JNDI Name to ADMINSERVERRESOURCEDS.
   c. Select the database type.
   d. Select the driver type.

4. Select Next.

5. Select Next again when Transaction options are displayed.

6. In the Connection Properties pane:
   a. Enter the Database Name.
   b. Enter the Host Name of the database server.
   c. Enter the Port number of the database server.
   d. Enter the Database user name for a readonly user. This can be obtained from the database administrator who installed the databases.
   e. Enter both password entries. This can be obtained from the database administrator who installed the databases.
   f. Select Next.

7. Test the database connection.

8. Select Next.

9. In the Select Targets pane that appears, check the box for the OICE application server. This links the data source to the servers that were was created.

10. Select Finish.
Create the Data Source for ADMINSERVERSEARCHDS

1. Select Services> Data Sources.

2. In the configuration section on the right, click New and then Select Generic Data Source.

3. In the JDBC Data Source Properties pane that appears:
   a. Change the Name. This name can be anything, but has to be unique for the entire WebLogic server. If you have more than one OICE instance on the server, each instance should have a unique name.
   b. Change the JNDI Name to ADMINSERVERSEARCHDS.
   c. Select the database type.
   d. Select the driver type.

4. Select Next.

5. Select Next again when Transaction options are displayed.

6. In the Connection Properties pane:
   a. Enter the Database Name.
   b. Enter the Host Name of the database server.
   c. Enter the Port number of the database server.
   d. Enter the Database user name for a readonly user. This can be obtained from the database administrator who installed the databases.
   e. Enter both password entries. This can be obtained from the database administrator who installed the databases.
   f. Select Next.

7. Test the database connection.

8. Select Next.

9. In the Select Targets pane that appears, check the box for the OICE application server. This links the data source to the servers that were was created.

10. Select Finish.
Create Data Source for ADMINSERVERREADONLYDS

1. Select Services> Data Sources.
2. In the configuration section on the right, click New and then Select Generic Data Source.
3. In the JDBC Data Source Properties pane that appears:
   a. Change the Name to ADMINSERVERREADONLYDS.
   b. Change the JNDI Name to ADMINSERVERREADONLYDS.
   c. Select the database type.
   d. Select the driver type.
4. Select Next.
5. Select Next again when Transaction options are displayed.
6. In the Connection Properties pane:
   a. Enter the Database Name.
   b. Enter the Host Name of the database server.
   c. Enter the Port number of the database server.
   d. Enter the Database user name for the readonly user. This can be obtained from the database administrator who installed the databases.
   e. Enter both password entries. This can be obtained from the database administrator who installed the databases.
   f. Select Next.
7. Test the database connection.
8. Select Next.
9. In the Select Targets pane that appears, check the box for the OICE application server. This links the data source to the servers that were was created.
10. Select Finish.

Deploy OICE Application

1. Using the navigation tree on the left, select Deployments.
2. In the configuration section on the right, select Install.
3. In the Install Application Assistant:
   a. Locate the PASJava.war file.
   b. Click Next.
   c. For the Choose targeting style keep the default of Install this deployment as an application.
   d. Click Next.
   e. For the Select deployment targets, select the checkbox for the server that will host the OICE application.
   f. Click Next.
g. Change the application name if needed.

h. Click Next.

i. Select Finish.

**Deploy the Web Application Utility**

1. Using the navigation tree on the left, select **Deployments**.

2. In the configuration section on the right, select **Install**.

3. In the **Install Application Assistant**:
   a. Locate the **PaletteConfig.war** file.
   b. Click **Next**.
   c. For the **Targeting Style** keep the default of **Install this deployment as an application**.
   d. Click **Next**.
   e. For the **Deployment Target** select the checkbox for the server that will host the Web Application Utility.
   f. Click **Next**.
   g. Change the application name if needed.
   h. Click **Next**.
   i. Select **Finish**.

**Start the Servers**

1. Select **Environment>Servers**.

2. In the configuration section on the right, select **Control** tab.

3. Select the checkbox next to the OICE and PaletteConfig servers.

4. Select the **Start** option.

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**Important:** When configuring the Rules Palette environment use the URL of the **PaletteConfig** server. The Web Application Utility must always be running in order for users to access the Rules Palette.
**TEST THE DEPLOYMENTS**

The initial test of the deployment is to confirm that the application presents a login screen when the application URL is opened. Final testing of the OICE deployment must wait until after the Web Application Utility is configured and initial users have been set up.

**OICE Deployment**

1. Open a new Internet Explorer window.
   
   **Note:** If you change the context name, use that name in the URL instead of PASJava.
3. Confirm that the login screen appears.

**Web Application Utility Deployment**

1. Open a new Internet Explorer window.
   
   **Note:** If you change the context name, use that name in the URL instead of PaletteConfig.
3. Confirm that the Web Application Utility set-up screen appears.