

**Oracle® Insurance Policy  
Administration**

**JBoss Deployment**

**Installation Instructions – Step 2**

Version 9.4.0.0

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## INTRODUCTION

The Oracle Insurance Policy Administration (OIPA) 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, where the OIPA application and Web Application Utility are configured using JBoss. Please refer to the OIPA Database Installation Instructions provided in the documentation library to ensure the database is set up correctly.

You must obtain and install JBoss Enterprise 4.2 prior to the deployment of OIPA and the Web Application Utility.

**Note:** The Web Application Utility is used to configure the Rules Palette application and is the means of delivering the Rules Palette to users.

The JBoss archive can be extracted and installed as indicated in the JBoss installation documentation. The installation of OIPA will make use of the *default* server configuration that is included with JBoss. This document will reference the installation path of JBoss as `JBOSS_HOME`.

**Note:** This installation guide is meant solely for the installation of a development environment and installations for production environments many require additional/different configuration.

## 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.

## Prerequisites

- A server with a Windows, Linux, Solaris or AIX operating system
- JBoss Enterprise 4.2
- Sun Java JDK 1.5
- Administrative rights to the server
- Oracle Insurance Rules Palette V9.4.0 Media Pack from E-Delivery. The Web Application Utility files are included in this Media Pack in the PaletteConfig folder.
- Oracle Insurance Policy Administration V9.4.0 Media Pack from E-Delivery.

# INITIAL SYSTEM CONFIGURATION

## Files

The OIPA Media Pack and the Rules Palette Media Pack include all of the files necessary to deploy OIPA and the Web Application Utility on the JBoss application server.

**Note:** The Web Application Utility files reside in the PaletteConfig folder inside the Rules Palette Media pack. The war file for the utility is called PaletteConfig.war.

## Update and Copy Libraries

The default installation of JBoss includes several libraries that are not needed and need to be removed.

1. Delete the following files from JBOSS\_HOME\server\default\lib\
  - antlr.jar
  - commons-collections.jar
  - commons-logging.jar
  - el-api.jar
  - log4j.jar
2. Add the following files from the OIPA Media Pack to JBOSS\_HOME\server\default\lib\
  - antlr-2.7.7.jar
  - commons-collections-3.2.1.jar
  - commons-logging-1.1.1.jar
  - el-api-1.0.jar
  - log4j-1.2.16.jar
  - spring-agent-2.5.6.SEC02.jar
3. Copy the database drivers for the database into JBOSS\_HOME\server\default\lib\
  - **Oracle 11.2** – The necessary driver, **ojdbc-11.2.0.2.jar**, is included in the **libs** folder of the OIPA Media Pack.
  - **Microsoft SQL Server 2005** – download the latest **jtids.jar** file.
    - a. Download **jtids** from the following site: <http://sourceforge.net/projects/jtids/>.
    - b. Click the green **Download** box on the right side of the screen. A pop-up window will open.
    - c. Save the download .zip file to the lib directory you created (JBOSS\_HOME\server\default\lib\).
    - d. Open the downloaded .zip file and extract the file **jtids-1.2.5** from the root of the .zip file.
  - **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 9.7.

## Copy Configuration Files

1. Copy the following files from the properties folder of the OIPA Media Pack to JBOSS\_HOME\server\default\conf:
  - AdminServerMessages.properties
  - APESMessages.properties
  - coherence-cache-config.xml
  - coherence-config.xml
  - DocumentGeneratorMessages.properties
  - ExtensibilityMessages.properties
  - EXTMessages.properties
  - MathMessages.properties
  - PAS.properties
  - PASMessages.properties
  - ResourceBundleMessages.properties
  - SREMessages.properties
  - UtilMessages.properties
2. Copy text in [Appendix A](#) to the following file in JBOSS\_HOME\server\default\deploy:
  - oipa-ds.xml
3. Copy the following file from the PaletteConfig folder in the Rules Palette Media Pack to JBOSS\_HOME\server\default\conf:
  - PaletteWebApplication.properties

## Copy Deployment Files

1. Copy the following file from the OIPA Media Pack to JBOSS\_HOME\server\default\deploy:
  - PASJava.war
2. Copy the following file from the PaletteConfig folder in the Rules Palette Media Pack to JBOSS\_HOME\server\default\deploy:
  - PaletteConfig.war

## Create a PaletteConfig Directory

1. Create a PaletteConfig directory in JBOSS\_HOME\server\default\conf\

**Example:** JBOSS\_HOME\server\default\conf\paletteconfig\

**Note:** The Web Application Utility files are stored in the PaletteConfig directory.

## CONFIGURATION

### Web Application Utility Configuration

1. Modify the download.dir setting of PaletteWebApplication.properties in JBOSS\_HOME\server\default\conf to point to the PaletteConfig directory that you created.

### OIPA Configuration

1. Identify the database type and platform in the **PAS.properties** file (copied to JBOSS\_HOME\server\default\conf). The property 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 PAS.properties document in the Oracle Insurance Policy Administration E18894\_01 Documentation Library on the OTN for a complete list of all properties and allowed values.

2. Identify the default locale in the PAS.properties file. The locale selected will determine the translation that is loaded in the database for OIPA when it launches.
  - application.defaultLocale
3. If using a DB2 database, modify the PAS.properties file to include configuration for case-insensitive searching. If using an Oracle or Microsoft SQL Server database, please skip this step.
  - Modify the PAS.properties file to include the following line:

```
search.field.text.caseInsensitive=true
```

### Data Source Configuration

To configure the database connection, two files must be modified.

1. Generate encrypted passwords for the database logins. For each password, you need to run the following command to generate an encrypted string that will be used in the next step. Replace PASSWORD with your actual password. Running this command will output the encrypted string.

#### Windows example:

```
cd C:\jboss-eap-4.2.0.GA_CP09\jboss-eap-4.2\jboss-as\  
java -cp lib/jboss-common.jar;lib/jboss-  
jmx.jar;server/default/lib/jbosssx.jar;server/default/lib/jboss-jca.jar  
org.jboss.resource.security.SecureIdentityLoginModule PASSWORD
```

#### Linux example:

```
cd /opt/jboss-eap-4.2.0.GA_CP09/jboss-eap-4.2/jboss-as/  
java -cp lib/jboss-common.jar:lib/jboss-  
jmx.jar:server/default/lib/jbosssx.jar:server/default/lib/jboss-jca.jar  
org.jboss.resource.security.SecureIdentityLoginModule PASSWORD
```

Modify the `login-config.xml` file located in `JBOSS_HOME\server\default\conf\` by adding the following lines to the bottom of the file (before `</policy>`) and replacing `USERNAME` with the actual database usernames and `PASSWORD_ENCRYPTED` with encrypted password strings generated in the previous step:

```
<application-policy name="Login-ADMINSERVERDS">
  <authentication>
    <login-module
code="org.jboss.resource.security.SecureIdentityLoginModule"
flag="required">
      <module-option name="username">USERNAME</module-option>
      <module-option name="password">PASSWORD_ENCRYPTED</module-option>
      <module-option
name="managedConnectionFactoryName">jboss.jca:name=ADMINSERVERDS,service=LocalTxCM</module-option>
    </login-module>
  </authentication>
</application-policy>
<application-policy name="Login-ADMINSERVERRESOURCEDS">
  <authentication>
    <login-module
code="org.jboss.resource.security.SecureIdentityLoginModule"
flag="required">
      <module-option name="username">USERNAME</module-option>
      <module-option name="password">PASSWORD_ENCRYPTED</module-option>
      <module-option
name="managedConnectionFactoryName">jboss.jca:name=ADMINSERVERRESOURCEDS,service=LocalTxCM</module-option>
    </login-module>
  </authentication>
</application-policy>
<application-policy name="Login-ADMINSERVERREADONLYDS">
  <authentication>
    <login-module
code="org.jboss.resource.security.SecureIdentityLoginModule"
flag="required">
      <module-option name="username">USERNAME</module-option>
      <module-option name="password">PASSWORD_ENCRYPTED</module-option>
      <module-option
name="managedConnectionFactoryName">jboss.jca:name=ADMINSERVERREADONLYDS,service=LocalTxCM</module-option>
    </login-module>
  </authentication>
</application-policy>
<application-policy name="Login-ADMINSERVERSEARCHDS">
  <authentication>
    <login-module
code="org.jboss.resource.security.SecureIdentityLoginModule"
flag="required">
      <module-option name="username">USERNAME</module-option>
      <module-option name="password">PASSWORD_ENCRYPTED</module-option>
      <module-option
name="managedConnectionFactoryName">jboss.jca:name=ADMINSERVERSEARCHDS,service=LocalTxCM</module-option>
    </login-module>
  </authentication>
</application-policy>
```



2. Modify the `oipa-ds.xml` file located in `JBOSS_HOME\server\default\deploy\` to include the connection information for the database. The file has a template for each database type. All data sources should be configured to use the OIPA database, with the exception of the `ADMINSERVERREADONLYDS` data source, which should be configured to use the OIPA database's read-only user.

## JBoss Configuration

The JBoss run configuration files are located in the `JBOSS_HOME\jboss-as\bin\` folder of the JBoss installation.

1. Make sure the `JAVA_HOME` variable in `run.conf` is properly set to the Java location.  
**Ex:** `JAVA_HOME="C:\Program Files (x86)\Java\jdk1.5.0_22`
2. Depending on the environment, either `run.bat` or `run.sh` must be modified with the appropriate memory, Java agent, and Coherence configuration. The memory settings indicated in the configuration examples below may need to be modified to suit your specific environment.

### Suggested Memory Settings:

- Single user environment: `-Xms512m -Xmx768m -XX:MaxPermSize=256m`
- Production environment: `-Xms512m -Xmx2g -XX:MaxPermSize=256m`
- If Windows, modify `run.bat`:
  - Right before the echo statements towards the bottom of the file, add this text:

```
# SETTINGS FOR OIPA
set JAVA_OPTS=%JAVA_OPTS% -XX:MaxPermSize=256m
set JAVA_OPTS=%JAVA_OPTS% -
Dtangosol.coherence.override="%JBOSS_HOME%\server\default\conf\coherence-config.xml"
set JAVA_OPTS=%JAVA_OPTS% -
Dtangosol.coherence.cacheconfig="%JBOSS_HOME%\server\default\conf\coherence-cache-config.xml"
set JAVA_OPTS=%JAVA_OPTS% -Dtangosol.pof.config=com-adminserver-pas-web-pof-config.xml
set JAVA_OPTS=%JAVA_OPTS% -
javaagent:"%JBOSS_HOME%\server\default\lib\spring-agent-2.5.6.SEC02.jar"
```

- If Unix, modify `run.sh`:
  - Right before the echo statements towards the bottom of the file, add this text:

```
# SETTINGS FOR OIPA
JAVA_OPTS="$JAVA_OPTS -XX:MaxPermSize=256m
JAVA_OPTS="$JAVA_OPTS -
Dtangosol.coherence.override=$JBOSS_HOME/server/default/conf/coherence-config.xml"
JAVA_OPTS="$JAVA_OPTS -
Dtangosol.coherence.cacheconfig=$JBOSS_HOME/server/default/conf/coherence-cache-config.xml"
JAVA_OPTS="$JAVA_OPTS -Dtangosol.pof.config=com-adminserver-pas-web-pof-config.xml"
JAVA_OPTS="$JAVA_OPTS -
javaagent:$JBOSS_HOME/server/default/lib/spring-agent-2.5.6.SEC02.jar"
```

## RUNNING JBOSS

JBoss can be started in various ways depending upon the desired configuration. Please refer to the JBoss documentation provided at <http://www.jboss.org/jbossas/docs.html> for further information.

1. JBoss can be started in a console to test the deployment of OIPA. The configuration to be used, default, and the IP address to bind for listening for connections are specified as command line parameters.

- If using Windows, execute `run.bat` in the `JBOSS_HOME\bin` folder.

```
run.bat -c default -b 0.0.0.0
```

- If on Linux, execute `run.sh` in the `JBOSS_HOME\bin` folder.

```
./run.sh -c default -b 0.0.0.0
```

**IMPORTANT:** When configuring the Rules Palette environment, use the host name and port number of the PaletteConfig server. The Web Application Utility must always be running in order for users to access the Rules Palette.

## TESTING

### Testing the OIPA Deployment

1. In a web browser, navigate to <http://hostname:8080/PASJava/Login/Login.iface>  
The initial default username is *install* and the password is *install*.

### Testing the Web Application Utility Deployment

1. In a web browser, navigate to <http://hostname:8080/PaletteConfig>  
The initial default username is *admin* and the password is *admin*.

You have now completed step two of the installation process. Refer to the documentation library on OTN for the 9.4.0.0 release for the other steps involved in the installation process.

## APPENDIX A

```
<?xml version="1.0" encoding="UTF-8"?>

<!-- ===== -->
<!-- JBoss Server Configuration -->
<!-- ===== -->

<datasources>
  <!-- SQL SERVER -->
  <local-tx-datasource>
    <jndi-name>ADMINSERVERDS</jndi-name>
    <connection-url>jdbc:jtds:sqlserver://SERVERNAME:PORT/DATABASENAME</connection-url>
    <driver-class>net.sourceforge.jtds.jdbc.Driver</driver-class>
    <security-domain>Login-ADMINSERVERDS</security-domain>
  </local-tx-datasource>
  <local-tx-datasource>
    <jndi-name>ADMINSERVERRESOURCEDS</jndi-name>
    <connection-url>jdbc:jtds:sqlserver://SERVERNAME:PORT/DATABASENAME</connection-url>
    <driver-class>net.sourceforge.jtds.jdbc.Driver</driver-class>
    <security-domain>Login-ADMINSERVERRESOURCEDS</security-domain>
  </local-tx-datasource>
  <local-tx-datasource>
    <jndi-name>ADMINSERVERREADONLYDS</jndi-name>
    <connection-url>jdbc:jtds:sqlserver://SERVERNAME:PORT/DATABASENAME</connection-url>
    <driver-class>net.sourceforge.jtds.jdbc.Driver</driver-class>
    <security-domain>Login-ADMINSERVERREADONLYDS</security-domain>
  </local-tx-datasource>
  <local-tx-datasource>
    <jndi-name>ADMINSERVERSEARCHDS</jndi-name>
    <connection-url>jdbc:jtds:sqlserver://SERVERNAME:PORT/DATABASENAME</connection-url>
    <driver-class>net.sourceforge.jtds.jdbc.Driver</driver-class>
    <security-domain>Login-ADMINSERVERSEARCHDS</security-domain>
  </local-tx-datasource>

  <!-- ORACLE -->
  <!-- local-tx-datasource>
  <jndi-name>ADMINSERVERDS</jndi-name>
  <connection-url>jdbc:oracle:thin:@SERVERNAME:PORT:SID</connection-url>
  <driver-class>oracle.jdbc.driver.OracleDriver</driver-class>
  <security-domain>Login-ADMINSERVERDS</security-domain>
</local-tx-datasource>
  <local-tx-datasource>
    <jndi-name>ADMINSERVERRESOURCEDS</jndi-name>
    <connection-url>jdbc:oracle:thin:@SERVERNAME:PORT:SID</connection-url>
    <driver-class>oracle.jdbc.driver.OracleDriver</driver-class>
    <security-domain>Login-ADMINSERVERRESOURCEDS</security-domain>
  </local-tx-datasource>
  <local-tx-datasource>
    <jndi-name>ADMINSERVERREADONLYDS</jndi-name>
    <connection-url>jdbc:oracle:thin:@SERVERNAME:PORT:SID</connection-url>
    <driver-class>oracle.jdbc.driver.OracleDriver</driver-class>
    <security-domain>Login-ADMINSERVERREADONLYDS</security-domain>
  </local-tx-datasource>
  <local-tx-datasource>
    <jndi-name>ADMINSERVERSEARCHDS</jndi-name>
    <connection-url>jdbc:oracle:thin:@SERVERNAME:PORT:SID</connection-url>
    <driver-class>oracle.jdbc.driver.OracleDriver</driver-class>
    <security-domain>Login-ADMINSERVERSEARCHDS</security-domain>
  </local-tx-datasource -->

  <!-- DB2 -->
```

```

<!-- local-tx-datasource>
  <jndi-name>ADMINSERVERDS</jndi-name>
  <connection-
url>jdbc:db2://SERVERNAME:PORT/DATABASENAME:currentSchema=SCHEMANAME;</connection-url>
  <driver-class>com.ibm.db2.jcc.DB2Driver</driver-class>
  <security-domain>Login-ADMINSERVERDS</security-domain>
</local-tx-datasource>
<local-tx-datasource>
  <jndi-name>ADMINSERVERRESOURCEDS</jndi-name>
  <connection-
url>jdbc:db2://SERVERNAME:PORT/DATABASENAME:currentSchema=SCHEMANAME;</connection-url>
  <driver-class>com.ibm.db2.jcc.DB2Driver</driver-class>
  <security-domain>Login-ADMINSERVERRESOURCEDS</security-domain>
</local-tx-datasource>
<local-tx-datasource>
  <jndi-name>ADMINSERVERREADONLYDS</jndi-name>
  <connection-
url>jdbc:db2://SERVERNAME:PORT/DATABASENAME:currentSchema=SCHEMANAME;</connection-url>
  <driver-class>com.ibm.db2.jcc.DB2Driver</driver-class>
  <security-domain>Login-ADMINSERVERREADONLYDS</security-domain>
</local-tx-datasource>
<local-tx-datasource>
  <jndi-name>ADMINSERVERSEARCHDS</jndi-name>
  <connection-
url>jdbc:db2://SERVERNAME:PORT/DATABASENAME:currentSchema=SCHEMANAME;</connection-url>
  <driver-class>com.ibm.db2.jcc.DB2Driver</driver-class>
  <security-domain>Login-ADMINSERVERSEARCHDS</security-domain>
</local-tx-datasource -->
</datasources>

```