

# **Oracle® Identity Manager**

Upgrade Guide

Release 9.0.1.2

**B32466-01**

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# Preface

The *Oracle Identity Manager Upgrade Guide* explains how to upgrade from Oracle Identity Manager Releases 9.0.1.1, 9.0.1.1.1, or 9.0.1.1.2 to Release 9.0.1.2. Oracle Identity Manager has formerly been known as both Oracle Xellerate Identity Provisioning and Thor Xellerate Identity Manager.

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**Note:** This is a transitional release following Oracle's acquisition of Thor Technologies. Some parts of the product and documentation still refer to the original Thor company name and Xellerate product name and will be rebranded in future releases.

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## Audience

The *Oracle Identity Manager Upgrade Guide* for Release 9.0.1.2 is intended for system administrators who plan to upgrade from Oracle Identity Manager Releases 9.0.1.1, 9.0.1.1.1, or 9.0.1.1.2 to Release 9.0.1.2.

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## Related Documents

For more information, see the *Oracle Identity Manager Release 9.0.1.2 Release Notes*.

## Documentation Updates

Oracle is committed to delivering the best and most recent information available. For information about updates to the Oracle Identity Manager 9.0 documentation set, visit Oracle Technology Network at:

<http://www.oracle.com/technology/documentation>

## Conventions

The following text conventions are used in this document:

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.
<code>&lt;*_HOME&gt;</code>	The directory where an application is installed. The directory where you install Oracle Identity Manager server is referred to as <code>&lt;XL_HOME&gt;</code> . Each Oracle Identity Manager component includes its own abbreviation, for example: <code>&lt;XL_DC_HOME&gt;</code> for the Design Console and <code>&lt;XL_RM_HOME&gt;</code> for the Remote Manager.  <code>&lt;JBoss_HOME&gt;</code> represents the location where the JBoss application server is installed. <code>&lt;WEBSHERE_HOME&gt;</code> represents the location where the WebSphere application server is installed. <code>&lt;BEA_HOME&gt;</code> represents the location where the WebLogic application server is installed.
Release 9.0.1.2	Refers specifically to Oracle Identity Manager Release 9.0.1.2.
Release 9.0.1.1.x	Refers generally to Oracle Identity Manager Release 9.0.1.1, 9.0.1.1.1, and 9.0.1.1.2.

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## Overview

This document refers to Oracle Identity Manager Release 9.0.1.2 simply as Release 9.0.1.2.

Release 9.0.1.2 is an upgrade only release—you can only upgrade to Release 9.0.1.2. You cannot install Release 9.0.1.2 as an initial, first deployment of the Oracle Identity Manager product without first installing Release 9.0.1.1.

You can upgrade to Release 9.0.1.2 *only* from the following previous Oracle Identity Manager releases—do not attempt to upgrade to Release 9.0.1.2 from any other previous Oracle Identity Manager release:

- Release 9.0.1.1
- Release 9.0.1.1.1
- Release 9.0.1.1.2

This document refers to these previous Oracle Identity Manager releases commonly as Release 9.0.1.1.x.

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**Important:** Refer to the *Oracle Identity Manager Release Notes* for Release 9.0.1.2 for information on the certified application servers and configurations.

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## Upgrading to Release 9.0.1.2 on JBoss Application Servers

This chapter explains how to upgrade to Release 9.0.1.2 on JBoss application servers. Release 9.0.1.2 is an upgrade only release—you can only upgrade to Release 9.0.1.2. You cannot install Release 9.0.1.2 as an initial, first deployment of the Oracle Identity Manager product without first installing Release 9.0.1.1.

If you are new a Oracle Identity Manager customer and Release 9.0.1.2 will be your first deployment of the product, refer to [Upgrading to Release 9.0.1.2 as Your First Oracle Identity Manager Deployment](#).

If you are an existing Oracle Identity Manager customer already running Release 9.0.1.1.x on JBoss, refer to [Upgrading to Release 9.0.1.2 from Release 9.0.1.1.x](#).

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**Important:** Refer to the *Oracle Identity Manager Release Notes* for Release 9.0.1.2 for information on the certified application servers and configurations.

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### Upgrading to Release 9.0.1.2 as Your First Oracle Identity Manager Deployment

If you are a new Oracle Identity Manager customer and Release 9.0.1.2 will be your first deployment of the product, you must first install Release 9.0.1.1 and then upgrade to Release 9.0.1.2. Use the following steps to upgrade to Release 9.0.1.2 as your first Oracle Identity Manager deployment:

1. Install the JBoss application server by referring to the JBoss documentation.
2. Install Oracle Identity Manager Release 9.0.1.1 on the JBoss application server. You can download Release 9.0.1.1 from the Oracle Technology Network Web site using the following steps:
  - a. Go to the Oracle Technology Network Web site at:  
<http://www.oracle.com/technology/index.html>
  - b. Click on **Downloads** at the top of the page.
  - c. Go to the **Middleware** section of the page and click **Identity Management**.
  - d. Click the link for **Oracle Identity Manager and Connector Pack**.
  - e. Click the link for **Oracle Identity Manager (9.0.1.1)** to download Release 9.0.1.1.

Refer to the *Oracle Identity Manager Installation Guide for JBoss* for details on installing Release 9.0.1.1. You can access the Oracle Identity Manager Release 9.0.1 documentation by clicking **Oracle Identity Manager** on the Oracle Documentation page of the Oracle Technology Network Web site at:

<http://www.oracle.com/technology/documentation/index.html>

3. Upgrade to Release 9.0.1.2 from Release 9.0.1.1 using the steps in [Upgrading to Release 9.0.1.2 from Release 9.0.1.1.x](#).

## Upgrading to Release 9.0.1.2 from Release 9.0.1.1.x

The following is a list of the steps in this section that explain how to upgrade to Release 9.0.1.2 from Release 9.0.1.1.x:

1. [Upgrading the Database for Oracle Identity Manager](#)
2. [Preparing for the Upgrade](#)
  - a. [Preparing the Oracle Identity Manager Server for Upgrade](#)
  - b. [Preparing the Administrative and User Console for Upgrade](#)
  - c. [Preparing the Design Console for Upgrade](#)
  - d. [Preparing the Remote Manager for Upgrade](#)
3. [Performing the Upgrade](#)
4. [Migrating Release 9.0.1.1.x Custom Code](#)
5. [Redeploying the Diagnostic Dashboard](#)

### Upgrading the Database for Oracle Identity Manager

The scripts you must execute to upgrade your database depends on whether or not you deployed the Audit and Compliance Module in your Release 9.0.1.1.x environment. Be sure you execute the scripts appropriate for your environment.

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**Notes:** When upgrading the database to Release 9.0.1.2, consider the following:

- Several scripts included in the Release 9.0.1.2 upgrade package call other scripts. Retain the same directory structure of the upgrade package after extracting it and be sure that you execute scripts only from the same directory as they are delivered in.
  - Be sure to run the scripts on the machine where the database resides.
  - Check for errors after executing any of the scripts by examining the log file generated in the directory after running any script.
- 

Perform the following steps to upgrade your existing Release 9.0.1.1.x database instance:

1. Extract the contents of the Oracle Identity Manager Release 9.0.1.2 upgrade package to a temporary directory on the database machine—this document refers to this temporary directory as *<PATCH>*.
2. Enable execute permissions on the scripts in the *<PATCH>* directory.

3. Backup your existing database. As appropriate to your particular database, use the export/backup utilities provided with the Oracle database or SQL Server to perform a complete backup of your production database.

Production database backup includes, but is not limited to, complete export or backup of the Oracle Identity Manager Release 9.0.1.1.x database instance to ensure that no data is lost during the upgrade process. If the upgrade fails, this backup can be used to restore the database to its original state.

4. Verify your database is properly configured by referring to the database vendor's documentation and the *Oracle Identity Manager Installation Guide* specific to your application server.
5. Upgrade your database from Oracle Identity Manager Release 9.0.1.1.x to Release 9.0.1.2 by executing the following scripts appropriate for your type of database and depending on whether or not you deploy the Audit and Compliance Module.

#### **Oracle Databases and No Audit and Compliance Module Deployment:**

- a. Execute the following script:

```
<PATCH>\Database\Oracle\Scripts\upg_9011x_to_9012.sql
```

- b. Execute the following script:

```
<PATCH>\Database\Oracle\StoredProcedures\compile_all_XL_SP.sql
```

#### **Oracle Databases With an Audit and Compliance Module Deployment:**

- a. Execute the following script:

```
<PATCH>\Database\Oracle\Scripts\upg_9011x_to_9012_XACM.sql
```

- b. Execute the following script:

```
<PATCH>\Database\Oracle\StoredProcedures\compile_all_XL_SP.sql
```

#### **SQL Server and No Audit and Compliance Module Deployment:**

- a. Execute the following script:

```
<PATCH>\Database\SQLServer\Scripts\upg_9011x_to_9012.bat
```

- b. Launch a plain-text editor and open the following script:

```
<PATCH>\Database\SQLServer\StoredProcedures\compile_all_XL_SP.bat
```

- c. For every stored procedure listed in the **Sequential Lists** section of compile\_all\_XL\_SP.bat, replace the string **@sysuser** with the **database user name**. This is necessary because SQL Server requires functions invoked from a stored procedure to be qualified by the database user name (owner). Be sure you replace the entire **@sysuser** string, including the @ character.

- d. Execute the following script:

```
<PATCH>\Database\SQLServer\StoredProcedures\compile_all_XL_SP.bat
```

---

**Note:** Refer to [Appendix A, "Executing the SQL Server Upgrade Scripts"](#) for more information on executing these scripts.

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#### **SQL Server With an Audit and Compliance Module Deployment:**

- a. Execute the following script:

```
<PATCH>\Database\SQLServer\Scripts\upg_9011x_to_9012.bat
```

- b. Execute the following script:

```
<PATCH>\Database\SQLServer\Scripts\SQLServer_Enable_XACM.bat
```

- c. Launch a plain-text editor and open the following script:

```
<PATCH>\Database\SQLServer\StoredProcedures\compile_all_XL_SP.bat
```

- d. For every stored procedure listed in the **Sequential Lists** section of compile\_all\_XL\_SP.bat, replace the string **@sysuser** with the **database user name**. This is necessary because SQL Server requires functions invoked from a stored procedure to be qualified by the database user name (owner). Be sure you replace the entire **@sysuser** string, including the @ character.

- e. Execute the following script:

```
<PATCH>\Database\SQLServer\StoredProcedures\compile_all_XL_SP.bat
```

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**Note:** Refer to [Appendix A, "Executing the SQL Server Upgrade Scripts"](#) for more information on executing these scripts.

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6. Both the user profile auditing feature and the reports feature for Oracle Identity Manager require that certain metadata be loaded into the database.

For environments that do not deploy the Audit and Compliance Module, execute:

```
<PATCH>\Database\Utilities\LoadXML.<bat or sh>
```

For environments that deploy the Audit and Compliance Module, execute:

```
<PATCH>\Database\Utilities\LoadXML_XACM.<bat or sh>
```

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**Note:** Refer to [Appendix B, "Loading Metadata into the Database"](#) for more information on executing this script.

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## Preparing for the Upgrade

Before you upgrade to Oracle Identity Manager Release 9.0.1.2, you must prepare for the upgrade by performing pre-upgrade configuration tasks on the following components:

- Oracle Identity Manager server
- Administrative and User Console
- Design Console
- Remote Manager

### Preparing the Oracle Identity Manager Server for Upgrade

Prepare the Oracle Identity Manager server for upgrade to Release 9.0.1.2 by updating the Release 9.0.1.1.x libraries, scripts, and configuration files using the information in this section.

1. Extract the contents of the Oracle Identity Manager Release 9.0.1.2 upgrade package to a temporary directory on the machine where the Oracle Identity Manager Release 9.0.1.1.x server is installed—this document refers to this temporary directory as *<PATCH>*.
2. Back up your existing *<XL\_HOME>\xellerate\* directory.
3. Recursively copy the *<PATCH>\xellerate\* directory (including its subdirectories) to the *<XL\_HOME>\xellerate\* directory overwriting the existing files.
4. Recursively copy the *<PATCH>\documentation\* directory (including its subdirectories) to the *<XL\_HOME>\documentation\* directory.
5. Copy *<PATCH>\xellerate\setup\jboss-setup.xml* to the *<XL\_HOME>\xellerate\setup\* directory.
6. Update your existing Release 9.0.1.1.x Oracle Identity Manager server *xlconfig.xml* configuration file in the *<XL\_HOME>/xellerate/config/* directory to include the following new parameters introduced in Release 9.0.1.2:
  - a. Set the *<xl-configuration><Cache><ServerProperties><Enable>* parameter to TRUE, for example:
 

```
<xl-configuration><Cache><ServerProperties><Enable>TRUE</Enable>
</ServerProperties></xl-configuration>
```
  - b. Locate the *<xl-configuration><Cache>* parameter. After the *<xl-configuration>.<Cache>.<ColumnMetaData>* entry, but before the *</Cache>* entry, add the following entry:
 

```
<API>
    <Enable>false</Enable>
    <ExpireTime>14400</ExpireTime>
</API>
```
7. Edit the *requestPreview* script located in the *<XL\_HOME>/xellerate/bin/* directory according to your database and operating system. If your database is running on Windows, edit the *requestPreview.bat* script. If your database is running on UNIX or Linux, edit the *requestPreview.sh* script. Make the following changes:

### Oracle

Set *JAVA\_HOME* to the location of the JDK that was selected when Oracle Identity Manager was installed. You can verify this value by checking the *appserver.jdk.location* property in the *<XL\_HOME>\xellerate\Profiles\jboss.profile* file. For example, the *appserver.jdk.location* property might be the following:

```
appserver.jdk.location=C:/j2sdk1.4.2_09
```

### SQL Server

- Set *JAVA\_HOME* to the location of the JDK that was selected when Oracle Identity Manager was installed. You can verify this value by checking the *appserver.jdk.location* property in the *<XL\_HOME>\xellerate\Profiles\jboss.profile* file. For example, the *appserver.jdk.location* property might be the following:

```
appserver.jdk.location=C:/j2sdk1.4.2_09
```

- Set *SQL\_SERVER\_DRIVER\_DIR* to the path of the directory that contains the *mssqlserver.jar*, *msbase.jar*, and *msutil.jar* files.

- Uncomment the SQL\_SERVER\_DRIVER\_DIR parameter.

### Preparing the Administrative and User Console for Upgrade

Several Administrative and User Console files were modified between Release 9.0.1.1.x and Release 9.0.1.2. If you customized your Release 9.0.1.1.x Administrative and User Console, that is, you made changes to the default, stock Administrative and User Console that shipped with Release 9.0.1.1.x, you must add your customizations into the new Release 9.0.1.2 Administrative and User Console files.

Refer to [Appendix C, "Upgrading Customized Administrative and User Consoles"](#) if you customized your Release 9.0.1.1.x Administrative and User Console.

If you did not customize your Release 9.0.1.1.x Administrative and User Console, skip this section and continue the upgrade process by referring to [Preparing the Design Console for Upgrade](#).

### Preparing the Design Console for Upgrade

Prepare the Oracle Identity Manager Design Console for upgrade to Release 9.0.1.2 by updating your Release 9.0.1.1.x Design Console libraries, scripts, and configuration files using the following steps:

1. Back up your existing <XL\_DC\_HOME>\xlclient\ directory
2. Recursively copy the <PATCH>\xlclient\ directory (including its subdirectories) to the <XL\_DC\_HOME>\xlclient\ directory overwriting the existing files.

### Preparing the Remote Manager for Upgrade

Prepare the Oracle Identity Manager Remote Manager for upgrade to Release 9.0.1.2 by updating your Release 9.0.1.1.x Remote Manager libraries, scripts, and configuration files using the following steps:

1. Backup the <XL\_RM\_HOME>\xlremote\lib\ directory.
2. Copy the contents of the <PATCH>\xlremote\lib\ directory to the <XL\_RM\_HOME>\xlremote\lib\ directory, overwriting files if necessary.

## Performing the Upgrade

Upgrading from an existing Release 9.0.1.1.x deployment to Release 9.0.1.2 involves assembling a new enterprise application archive (EAR) file from the latest libraries, then redeploying the EAR.

Perform the following steps appropriate for your deployment after completing all the pre-upgrade tasks to upgrade to Release 9.0.1.2:

### Upgrading Single JBoss Application Servers

Use the following steps to perform the upgrade to Release 9.0.1.2 on a single JBoss application server:

1. Make sure the JBoss application server is not running.
2. Copy <PATCH>\xellerate\ext\ojdbc14.jar to the <JBOSS\_HOME>\server\default\lib\ directory, overwriting the existing file if necessary. For a JBoss cluster, copy <PATCH>\xellerate\ext\ojdbc14.jar to the <JBOSS\_HOME>\server\all\lib\ directory on all cluster participants, overwriting existing files if necessary.
3. Run the patch\_jboss script:

**Windows:**

- Run <XL\_HOME>\xellerate\setup\patch\_jboss.cmd

**Linux:**

- Run <XL\_HOME>/xellerate/setup/patch\_jboss.sh

4. Restart the JBoss application server.

**Upgrading Clustered JBoss Application Servers**

Use the following steps to perform the upgrade to Release 9.0.1.2 in a clustered JBoss environment:

1. Upgrade the first node in the JBoss cluster using the steps in [Upgrading Single JBoss Application Servers](#).
2. Backup the JBoss and Oracle Identity Manager installation directories on the second node in the cluster that you want to upgrade.
3. Delete the JBoss and Oracle Identity Manager installation directories on the second node in the cluster.
4. Copy the JBoss and Oracle Identity Manager installation directories from the first node in the cluster (that you upgraded to Release 9.0.1.2 in Step 1) to the second node in the cluster.

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**Note:** If you made any changes to the original, default configuration (for example, a different port number was configured) on the node in the cluster you are copying to, you must reapply those changes to the node after copying the JBoss and Oracle Identity Manager installation directories from the first node in the cluster that you upgraded to Release 9.0.1.2.

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5. Repeat these steps and restart the nodes to upgrade all cluster participants.

**Migrating Release 9.0.1.1.x Custom Code**

You can recycle custom code used in your Release 9.0.1.1.x environment into your newly upgraded Release 9.0.1.2 environment.

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**Note:** Before you migrate custom code from the Release 9.0.1.1.x environment, you must first recompile the custom code using the Oracle Identity Manager Release 9.0.1.2 libraries.

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The following is a list of the customized items you can migrate from your Release 9.0.1.1.x environment and reuse in Release 9.0.1.2 after recompiling using the Release 9.0.1.2 libraries:

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**Note:** For clustered environments, after recompiling the following customized items using the Release 9.0.1.2 libraries, copy the recompiled code to the remaining participants in the cluster.

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- Custom java code recompiled using the integrated development environment (that is, Eclipse, JDeveloper, WASD or command line javac) and Release 9.0.1.2 libraries.

- Custom java libraries bound to functional Oracle Identity Manager Release 9.0.1.1.x adapters recompiled using Release 9.0.1.2 libraries. You do not need to recompile the adapters.
- Custom scheduled tasks recompiled using Release 9.0.1.2 libraries.
- Custom event handlers recompiled using Release 9.0.1.2 libraries.
- Custom clients that were built using Oracle Identity Manager Release 9.0.1.1.x APIs must be updated to make them compatible with the Oracle Identity Manager Release 9.0.1.2 APIs.

For example, certain APIs might have been deprecated and replaced by new APIs. Refer to the *Oracle Identity Manager Release 9.0.1.2 Release Notes* for information on API changes between Oracle Identity Manager Release 9.0.1.1.x and Release 9.0.1.2.

## Redeploying the Diagnostic Dashboard

After upgrading to Release 9.0.1.2, you must redeploy the Diagnostic Dashboard using the following steps:

1. Remove the existing Diagnostic Dashboard instance by deleting the <JBOSS\_HOME>\server\default\deploy\XIMDD.war file.
2. Copy the <XL\_HOME>\xellerate\webapp\XIMDD.war file to the <JBOSS\_HOME>\server\default\deploy\ directory.
3. Restart the application server.



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## Upgrading to Release 9.0.1.2 on WebLogic Application Servers

This chapter explains how to upgrade to Release 9.0.1.2 on WebLogic application servers. Release 9.0.1.2 is an upgrade only release—you can only upgrade to Release 9.0.1.2. You cannot install Release 9.0.1.2 as an initial, first deployment of the Oracle Identity Manager product without first installing Release 9.0.1.1.

If you are new a Oracle Identity Manager customer and Release 9.0.1.2 will be your first deployment of the product, refer to [Upgrading to Release 9.0.1.2 as Your First Oracle Identity Manager Deployment](#).

If you are an existing Oracle Identity Manager customer already running Release 9.0.1.1.x on WebLogic, refer to [Upgrading to Release 9.0.1.2 from Release 9.0.1.1.x](#).

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**Important:** Refer to the *Oracle Identity Manager Release Notes* for Release 9.0.1.2 for information on the certified application servers and configurations.

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**Note:** While upgrading to Release 9.0.1.2 on the WebLogic application server, you should review the information about the BEA Patch for 2007 Daylight Savings Time Changes for the United States. Go to the **Customer Support News** section of the BEA eSupport Web site at:

<http://support.bea.com/>

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### Upgrading to Release 9.0.1.2 as Your First Oracle Identity Manager Deployment

If you are a new Oracle Identity Manager customer and Release 9.0.1.2 will be your first deployment of the product, you must first install Release 9.0.1.1 and then upgrade to Release 9.0.1.2. Use the following steps to upgrade to Release 9.0.1.2 as your first Oracle Identity Manager deployment:

1. Install the WebLogic application server by referring to the WebLogic documentation.
2. Install Oracle Identity Manager Release 9.0.1.1 on the WebLogic application server. You can download Release 9.0.1.1 from the Oracle Technology Network Web site using the following steps:
  - a. Go to the Oracle Technology Network Web site at:

<http://www.oracle.com/technology/index.html>

- b. Click on **Downloads** at the top of the page.
- c. Go to the **Middleware** section of the page and click **Identity Management**.
- d. Click the link for **Oracle Identity Manager and Connector Pack**.
- e. Click the link for **Oracle Identity Manager (9.0.1.1)** to download Release 9.0.1.1.

Refer to the *Oracle Identity Manager Installation Guide for WebLogic* for details on installing Release 9.0.1.1. You can access the Oracle Identity Manager Release 9.0.1 documentation by clicking **Oracle Identity Manager** on the Oracle Documentation page of the Oracle Technology Network Web site at:

<http://www.oracle.com/technology/documentation/index.html>

3. Upgrade to Release 9.0.1.2 from Release 9.0.1.1 using the steps in [Upgrading to Release 9.0.1.2 from Release 9.0.1.1.x](#).

## Upgrading to Release 9.0.1.2 from Release 9.0.1.1.x

The following is a list of the steps in this section that explain how to upgrade to Release 9.0.1.2 from Release 9.0.1.1.x:

1. [Upgrading the Database for Oracle Identity Manager](#)
2. [Preparing for the Upgrade](#)
  - a. [Preparing the Oracle Identity Manager Server for Upgrade](#)
  - b. [Preparing the Administrative and User Console for Upgrade](#)
  - c. [Preparing the Design Console for Upgrade](#)
  - d. [Preparing the Remote Manager for Upgrade](#)
3. [Performing the Upgrade](#)
4. [Migrating Release 9.0.1.1.x Custom Code](#)
5. [Redeploying the Diagnostic Dashboard](#)

### Upgrading the Database for Oracle Identity Manager

The scripts you must execute to upgrade your database depends on whether or not you deployed the Audit and Compliance Module in your Release 9.0.1.1.x environment. Be sure you execute the scripts appropriate for your environment.

---

**Notes:** When upgrading the database to Release 9.0.1.2, consider the following:

- Several scripts included in the Release 9.0.1.2 upgrade package call other scripts. Retain the same directory structure of the upgrade package after extracting it and be sure that you execute scripts only from the same directory as they are delivered in.
  - Be sure to run the scripts on the machine where the database resides.
  - Check for errors after executing any of the scripts by examining the log file generated in the directory after running any script.
-

Perform the following steps to upgrade your existing Release 9.0.1.1.x database instance:

1. Extract the contents of the Oracle Identity Manager Release 9.0.1.2 upgrade package to a temporary directory on the database machine—this document refers to this temporary directory as *<PATCH>*.
2. Enable execute permissions on the scripts in the *<PATCH>* directory.
3. Backup your existing database. As appropriate to your particular database, use the export/backup utilities provided with the Oracle database or SQL Server to perform a complete backup of your production database.

Production database backup includes, but is not limited to, complete export or backup of the Oracle Identity Manager Release 9.0.1.1.x database instance to ensure that no data is lost during the upgrade process. If the upgrade fails, this backup can be used to restore the database to its original state.

4. Verify your database is properly configured by referring to the database vendor's documentation and the *Oracle Identity Manager Installation Guide* specific to your application server.
5. Upgrade your database from Oracle Identity Manager Release 9.0.1.1.x to Release 9.0.1.2 by executing the following scripts appropriate for your type of database and depending on whether or not you deploy the Audit and Compliance Module.

#### **Oracle Databases and No Audit and Compliance Module Deployment:**

- a. Execute the following script:

```
<PATCH>\Database\Oracle\Scripts\upg_9011x_to_9012.sql
```

- b. Execute the following script:

```
<PATCH>\Database\Oracle\StoredProcedures\compile_all_XL_SP.sql
```

#### **Oracle Databases With an Audit and Compliance Module Deployment:**

- a. Execute the following script:

```
<PATCH>\Database\Oracle\Scripts\upg_9011x_to_9012_XACM.sql
```

- b. Execute the following script:

```
<PATCH>\Database\Oracle\StoredProcedures\compile_all_XL_SP.sql
```

#### **SQL Server and No Audit and Compliance Module Deployment:**

- a. Execute the following script:

```
<PATCH>\Database\SQLServer\Scripts\upg_9011x_to_9012.bat
```

- b. Launch a plain-text editor and open the following script:

```
<PATCH>\Database\SQLServer\StoredProcedures\compile_all_XL_SP.bat
```

- c. For every stored procedure listed in the **Sequential Lists** section of compile\_all\_XL\_SP.bat, replace the string **@sysuser** with the **database user name**. This is necessary because SQL Server requires functions invoked from a stored procedure to be qualified by the database user name (owner). Be sure you replace the entire **@sysuser** string, including the @ character.

- d. Execute the following script:

```
<PATCH>\Database\SQLServer\StoredProcedures\compile_all_XL_SP.bat
```

---

---

**Note:** Refer to [Appendix A, "Executing the SQL Server Upgrade Scripts"](#) for more information on executing these scripts.

---

---

#### SQL Server With an Audit and Compliance Module Deployment:

- a. Execute the following script:

```
<PATCH>\Database\SQLServer\Scripts\upg_9011x_to_9012.bat
```

- b. Execute the following script:

```
<PATCH>\Database\SQLServer\Scripts\SQLServer_Enable_XACM.bat
```

- c. Launch a plain-text editor and open the following script:

```
<PATCH>\Database\SQLServer\StoredProcedures\compile_all_XL_SP.bat
```

- d. For every stored procedure listed in the **Sequential Lists** section of compile\_all\_XL\_SP.bat, replace the string **@sysuser** with the **database user name**. This is necessary because SQL Server requires functions invoked from a stored procedure to be qualified by the database user name (owner). Be sure you replace the entire **@sysuser** string, including the @ character.

- e. Execute the following script:

```
<PATCH>\Database\SQLServer\StoredProcedures\compile_all_XL_SP.bat
```

---

---

**Note:** Refer to [Appendix A, "Executing the SQL Server Upgrade Scripts"](#) for more information on executing these scripts.

---

---

6. Both the user profile auditing feature and the reports feature for Oracle Identity Manager require that certain metadata be loaded into the database.

For environments that do not deploy the Audit and Compliance Module, execute:

```
<PATCH>\Database\Utilities\LoadXML.<bat or sh>
```

For environments that deploy the Audit and Compliance Module, execute:

```
<PATCH>\Database\Utilities\LoadXML_XACM.<bat or sh>
```

---

---

**Note:** Refer to [Appendix B, "Loading Metadata into the Database"](#) for more information on executing this script.

---

---

## Preparing for the Upgrade

Before you upgrade to Oracle Identity Manager Release 9.0.1.2, you must prepare for the upgrade by performing pre-upgrade configuration tasks on the following components:

- Oracle Identity Manager server
- Administrative and User Console

- Design Console
- Remote Manager

## Preparing the Oracle Identity Manager Server for Upgrade

Prepare the Oracle Identity Manager server for upgrade to Release 9.0.1.2 by updating the Release 9.0.1.1.x libraries, scripts, and configuration files using the information in this section.

---

**Note:** If you are upgrading to Release 9.0.1.2 in a WebLogic cluster, perform the steps in this section on the Admin Server machine.

---

1. Extract the contents of the Oracle Identity Manager Release 9.0.1.2 upgrade package to a temporary directory on the machine where the Oracle Identity Manager Release 9.0.1.1.x server is installed—this document refers to this temporary directory as `<PATCH>`.
2. Back up your existing `<XL_HOME>\xellerate\` directory.
3. Recursively copy the `<PATCH>\xellerate\` directory (including its subdirectories) to the `<XL_HOME>\xellerate\` directory overwriting the existing files.
4. Recursively copy the `<PATCH>\documentation\` directory (including its subdirectories) to the `<XL_HOME>\documentation\` directory.
5. Update your existing Release 9.0.1.1.x Oracle Identity Manager server `xlconfig.xml` configuration file in the `<XL_HOME>/xellerate/config/` directory to include the following new parameters introduced in Release 9.0.1.2:
  - a. Set the `<xl-configuration><Cache><ServerProperties><Enable>` parameter to `TRUE`, for example:
 

```
<xl-configuration><Cache><ServerProperties><Enable>TRUE</Enable>
</ServerProperties></xl-configuration>
```
  - b. Locate the `<xl-configuration><Cache>` parameter. After the `<xl-configuration>.<Cache>.<ColumnMetaData>` entry, but before the `</Cache>` entry, add the following entry:
 

```
<API>
  <Enable>>false</Enable>
  <ExpireTime>14400</ExpireTime>
</API>
```
6. Edit the `requestPreview` script located in the `<XL_HOME>/xellerate/bin/` directory according to your database and operating system. If your database is running on Windows, edit the `requestPreview.bat` script. If your database is running on UNIX or Linux, edit the `requestPreview.sh` script. Make the following changes:

### Oracle

Set `JAVA_HOME` to the location of the JDK that was selected when Oracle Identity Manager was installed. You can verify this value by checking the `appserver.jdk.location` property in the `<XL_HOME>\xellerate\Profiles\weblogic.profile` file. For example, the `appserver.jdk.location` property might be the following:

```
appserver.jdk.location=<BEA_HOME>\jdk1.4.2_05
```

### SQL Server

- Set JAVA\_HOME to the location of the JDK that was selected when Oracle Identity Manager was installed. You can verify this value by checking the `appserver.jdk.location` property in the `<XL_HOME>\xellerate\Profiles\weblogic.profile` file. For example, the `appserver.jdk.location` property might be the following:  

```
appserver.jdk.location=<BEA_HOME>\jdk1.4.2_05
```
- Set SQL\_SERVER\_DRIVER\_DIR to the path of the directory that contains the `mssqlserver.jar`, `msbase.jar`, and `msutil.jar` files.
- Uncomment the SQL\_SERVER\_DRIVER\_DIR parameter.

### Preparing the Administrative and User Console for Upgrade

Several Administrative and User Console files were modified between Release 9.0.1.1.x and Release 9.0.1.2. If you customized your Release 9.0.1.1.x Administrative and User Console, that is, you made changes to the default, stock Administrative and User Console that shipped with Release 9.0.1.1.x, you must add your customizations into the new Release 9.0.1.2 Administrative and User Console files.

Refer to [Appendix C, "Upgrading Customized Administrative and User Consoles"](#) if you customized your Release 9.0.1.1.x Administrative and User Console.

If you did not customize your Release 9.0.1.1.x Administrative and User Console, skip this section and continue the upgrade process by referring to [Preparing the Design Console for Upgrade](#).

### Preparing the Design Console for Upgrade

Prepare the Oracle Identity Manager Design Console for upgrade to Release 9.0.1.2 by updating your Release 9.0.1.1.x Design Console libraries, scripts, and configuration files using the following steps:

1. Back up your existing `<XL_DC_HOME>\xlclient\` directory
2. Recursively copy the `<PATCH>\xlclient\` directory (including its subdirectories) to the `<XL_DC_HOME>\xlclient\` directory overwriting the existing files.

### Preparing the Remote Manager for Upgrade

Prepare the Oracle Identity Manager Remote Manager for upgrade to Release 9.0.1.2 by updating your Release 9.0.1.1.x Remote Manager libraries, scripts, and configuration files using the following steps:

1. Backup the `<XL_RM_HOME>\xlremote\lib\` directory.
2. Copy the contents of the `<PATCH>\xlremote\lib\` directory to the `<XL_RM_HOME>\xlremote\lib\` directory, overwriting files if necessary.

## Performing the Upgrade

Upgrading from an existing Oracle Identity Manager Release 9.0.1.1.x deployment to Oracle Identity Manager Release 9.0.1.2 involves assembling a new enterprise application archive (EAR) file from the latest libraries, then redeploying the EAR.

Use the following steps to perform the upgrade to Release 9.0.1.2 for both a single WebLogic application server and WebLogic cluster:

1. Make sure the WebLogic application server is running. For a WebLogic cluster, make sure the Admin Server, Node Managers, and Managed Servers are running.

---

**Note:** If you are upgrading in a WebLogic cluster, double-check the following items before proceeding to the next step:

- Ensure the following fields and values are set on the **Remote Start** tab for all Managed Servers:
    - **Java Home:** <BEA\_HOME>\jdk1.4.2\_05
    - **Bea Home:** <BEA\_HOME>
  - Ensure the **Listen Address** field on the **Configuration** tab for all Managed Servers contains the Host Address.
- 

2. If you are using SQL Server as your database, verify the following files have been added to the CLASSPATH:

- mssqlserver.jar
- msbase.jar
- msutil.jar

3. Copy <PATCH>\xellerate\ext\ojdbc14.jar to the <BEA\_HOME>\weblogic81\server\lib\ directory and overwrite the existing file if necessary.

For a WebLogic cluster, copy <PATCH>\xellerate\ext\ojdbc14.jar to the <BEA\_HOME>\weblogic81\server\lib\ directory on all cluster participants—including the Admin Server, and overwrite the existing files if necessary.

4. Run one of the following patch\_weblogic scripts on the application server. For a WebLogic cluster, run the patch\_weblogic script on the Admin Server.

**Windows:**

- Run <XL\_HOME>\xellerate\setup\patch\_weblogic.cmd

**UNIX:**

- Run <XL\_HOME>/xellerate/setup/patch\_weblogic.sh

5. Stop and restart the WebLogic application server after running the patch\_weblogic script to complete the upgrade to Release 9.0.1.2 for a single WebLogic application server.

For a WebLogic cluster, stop the cluster and then stop the Admin Server after running the patch\_weblogic script and proceed to the next step.

6. Complete the upgrade to Release 9.0.1.2 for a WebLogic cluster using the following steps:

- a. Copy the <XL\_HOME> directory from the Admin Server to all Managed Servers while maintaining the same directory hierarchy structure.
- b. Copy the wXLSecurityProviders.jar file from the <XL\_HOME>\xellerate\lib directory to the <BEA\_HOME>\weblogic81\server\lib\mbeantypes\ directory on all cluster participants, including the Admin Server.
- c. Start the Admin Server and then start the cluster using the Admin Console to complete the cluster upgrade to Release 9.0.1.2.

## Migrating Release 9.0.1.1.x Custom Code

You can recycle custom code used in your Release 9.0.1.1.x environment into your newly upgraded Release 9.0.1.2 environment.

---

---

**Note:** Before you migrate custom code from the Release 9.0.1.1.x environment, you must first recompile the custom code using the Oracle Identity Manager Release 9.0.1.2 libraries.

---

---

The following is a list of the customized items you can migrate from your Release 9.0.1.1.x environment and reuse in Release 9.0.1.2 after recompiling using the Release 9.0.1.2 libraries:

---

---

**Note:** For clustered environments, after recompiling the following customized items using the Release 9.0.1.2 libraries, copy the recompiled code to the remaining participants in the cluster.

---

---

- Custom java code recompiled using the integrated development environment (that is, Eclipse, JDeveloper, WASD or command line javac) and Release 9.0.1.2 libraries.
- Custom java libraries bound to functional Oracle Identity Manager Release 9.0.1.1.x adapters recompiled using Release 9.0.1.2 libraries. You do not need to recompile the adapters.
- Custom scheduled tasks recompiled using Release 9.0.1.2 libraries.
- Custom event handlers recompiled using Release 9.0.1.2 libraries.
- Custom clients that were built using Oracle Identity Manager Release 9.0.1.1.x APIs must be updated to make them compatible with the Oracle Identity Manager Release 9.0.1.2 APIs.

For example, certain APIs might have been deprecated and replaced by new APIs. Refer to the *Oracle Identity Manager Release 9.0.1.2 Release Notes* for information on API changes between Oracle Identity Manager Release 9.0.1.1.x and Release 9.0.1.2.

## Redeploying the Diagnostic Dashboard

After upgrading to Release 9.0.1.2, you must redeploy the Diagnostic Dashboard using the following steps:

1. Remove the existing XIMDD application using the WebLogic Admin Console.
2. Use the <XL\_HOME>\xellerate\webapp\XIMDD.war file and the instructions in the "Installing the Diagnostic Dashboard" section in the "Working with the Diagnostic Dashboard" chapter of the *Oracle Identity Manager Administrative and User Console Guide* to redeploy the Diagnostic Dashboard.



---

## Upgrading to Release 9.0.1.2 on WebSphere Application Servers

This chapter explains how to upgrade to Release 9.0.1.2 on WebSphere application servers. Release 9.0.1.2 is an upgrade only release—you can only upgrade to Release 9.0.1.2. You cannot install Release 9.0.1.2 as an initial, first deployment of the Oracle Identity Manager product without first installing Release 9.0.1.1.

If you are new a Oracle Identity Manager customer and Release 9.0.1.2 will be your first deployment of the product, refer to [Upgrading to Release 9.0.1.2 as Your First Oracle Identity Manager Deployment](#).

If you are an existing Oracle Identity Manager customer already running Release 9.0.1.1.x on WebSphere, refer to [Upgrading to Release 9.0.1.2 from Release 9.0.1.1.x](#).

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**Important:** Refer to the *Oracle Identity Manager Release Notes* for Release 9.0.1.2 for information on the certified application servers and configurations.

---

### Upgrading to Release 9.0.1.2 as Your First Oracle Identity Manager Deployment

If you are a new Oracle Identity Manager customer and Release 9.0.1.2 will be your first deployment of the product, you must first install Release 9.0.1.1 and then upgrade to Release 9.0.1.2. Use the following steps to upgrade to Release 9.0.1.2 as your first Oracle Identity Manager deployment:

1. Install the WebSphere application server by referring to the WebSphere documentation.
2. Install Oracle Identity Manager Release 9.0.1.1 on the WebSphere application server. You can download Release 9.0.1.1 from the Oracle Technology Network Web site using the following steps:
  - a. Go to the Oracle Technology Network Web site at:  
<http://www.oracle.com/technology/index.html>
  - b. Click on **Downloads** at the top of the page.
  - c. Go to the **Middleware** section of the page and click **Identity Management**.
  - d. Click the link for **Oracle Identity Manager and Connector Pack**.
  - e. Click the link for **Oracle Identity Manager (9.0.1.1)** to download Release 9.0.1.1.

Refer to the *Oracle Identity Manager Installation Guide for WebSphere* for details on installing Release 9.0.1.1. You can access the Oracle Identity Manager Release 9.0.1 documentation by clicking **Oracle Identity Manager** on the Oracle Documentation page of the Oracle Technology Network Web site at:

<http://www.oracle.com/technology/documentation/index.html>

3. Upgrade to Release 9.0.1.2 from Release 9.0.1.1 using the steps in [Upgrading to Release 9.0.1.2 from Release 9.0.1.1.x](#).

## Upgrading to Release 9.0.1.2 from Release 9.0.1.1.x

The following is a list of the steps in this section that explain how to upgrade to Release 9.0.1.2 from Release 9.0.1.1.x:

1. [Upgrading to WebSphere 5.1.1.12](#)
2. [Upgrading the Database for Oracle Identity Manager](#)
3. [Preparing for the Upgrade](#)
  - a. [Preparing the Oracle Identity Manager Server for Upgrade](#)
  - b. [Preparing the Administrative and User Console for Upgrade](#)
  - c. [Preparing the Design Console for Upgrade](#)
  - d. [Preparing the Remote Manager for Upgrade](#)
4. [Performing the Upgrade](#)
  - a. [Updating the Design Console xlDataObjectBeans.jar](#)
5. [Migrating Release 9.0.1.1.x Custom Code](#)
6. [Redeploying the Diagnostic Dashboard](#)

## Upgrading to WebSphere 5.1.1.12

Release 9.0.1.2 is certified on the WebSphere 5.1.1.12 application server. You must upgrade to WebSphere 5.1.1.12 before upgrading to Release 9.0.1.2. Refer to the WebSphere application server documentation for details on upgrading to WebSphere 5.1.1.12.

Be sure to also upgrade the WebSphere client to version 5.1.1.12 for the Release 9.0.1.2 Design Console. For WebSphere clusters, you must also upgrade the Network Deployment Manager and all Node Managers to version 5.1.1.12.

---

**Note:** If you have WebSphere 5.1.1.12 installed, go to [Upgrading the Database for Oracle Identity Manager](#) to continue the upgrade process.

---

## Upgrading the Database for Oracle Identity Manager

The scripts you must execute to upgrade your database depends on whether or not you deployed the Audit and Compliance Module in your Release 9.0.1.1.x environment. Be sure you execute the scripts appropriate for your environment.

---

**Notes:** When upgrading the database to Release 9.0.1.2, consider the following:

- Several scripts included in the Release 9.0.1.2 upgrade package call other scripts. Retain the same directory structure of the upgrade package after extracting it and be sure that you execute scripts only from the same directory as they are delivered in.
  - Be sure to run the scripts on the machine where the database resides.
  - Check for errors after executing any of the scripts by examining the log file generated in the directory after running any script.
- 

Perform the following steps to upgrade your existing Release 9.0.1.1.x database instance:

1. Extract the contents of the Oracle Identity Manager Release 9.0.1.2 upgrade package to a temporary directory on the database machine—this document refers to this temporary directory as *<PATCH>*.
2. Enable execute permissions on the scripts in the *<PATCH>* directory.
3. Backup your existing database. As appropriate to your particular database, use the export/backup utilities provided with the Oracle database or SQL Server to perform a complete backup of your production database.

Production database backup includes, but is not limited to, complete export or backup of the Oracle Identity Manager Release 9.0.1.1.x database instance to ensure that no data is lost during the upgrade process. If the upgrade fails, this backup can be used to restore the database to its original state.

4. Verify your database is properly configured by referring to the database vendor's documentation and the *Oracle Identity Manager Installation Guide* specific to your application server.
5. Upgrade your database from Oracle Identity Manager Release 9.0.1.1.x to Release 9.0.1.2 by executing the following scripts appropriate for your type of database and depending on whether or not you deploy the Audit and Compliance Module.

**Oracle Databases and No Audit and Compliance Module Deployment:**

- a. Execute the following script:

```
<PATCH>\Database\Oracle\Scripts\upg_9011x_to_9012.sql
```

- b. Execute the following script:

```
<PATCH>\Database\Oracle\StoredProcedures\compile_all_XL_SP.sql
```

**Oracle Databases With an Audit and Compliance Module Deployment:**

- a. Execute the following script:

```
<PATCH>\Database\Oracle\Scripts\upg_9011x_to_9012_XACM.sql
```

- b. Execute the following script:

```
<PATCH>\Database\Oracle\StoredProcedures\compile_all_XL_SP.sql
```

**SQL Server and No Audit and Compliance Module Deployment:**

- a. Execute the following script:

```
<PATCH>\Database\SQLServer\Scripts\upg_9011x_to_9012.bat
```

- b.** Launch a plain-text editor and open the following script:

```
<PATCH>\Database\SQLServer\StoredProcedures\compile_all_XL_SP.bat
```

- c.** For every stored procedure listed in the **Sequential Lists** section of compile\_all\_XL\_SP.bat, replace the string **@sysuser** with the **database user name**. This is necessary because SQL Server requires functions invoked from a stored procedure to be qualified by the database user name (owner). Be sure you replace the entire **@sysuser** string, including the @ character.
- d.** Execute the following script:

```
<PATCH>\Database\SQLServer\StoredProcedures\compile_all_XL_SP.bat
```

---

---

**Note:** Refer to [Appendix A, "Executing the SQL Server Upgrade Scripts"](#) for more information on executing these scripts.

---

---

#### SQL Server With an Audit and Compliance Module Deployment:

- a.** Execute the following script:

```
<PATCH>\Database\SQLServer\Scripts\upg_9011x_to_9012.bat
```

- b.** Execute the following script:

```
<PATCH>\Database\SQLServer\Scripts\SQLServer_Enable_XACM.bat
```

- c.** Launch a plain-text editor and open the following script:

```
<PATCH>\Database\SQLServer\StoredProcedures\compile_all_XL_SP.bat
```

- d.** For every stored procedure listed in the **Sequential Lists** section of compile\_all\_XL\_SP.bat, replace the string **@sysuser** with the **database user name**. This is necessary because SQL Server requires functions invoked from a stored procedure to be qualified by the database user name (owner). Be sure you replace the entire **@sysuser** string, including the @ character.
- e.** Execute the following script:

```
<PATCH>\Database\SQLServer\StoredProcedures\compile_all_XL_SP.bat
```

---

---

**Note:** Refer to [Appendix A, "Executing the SQL Server Upgrade Scripts"](#) for more information on executing these scripts.

---

---

- 6.** Both the user profile auditing feature and the reports feature for Oracle Identity Manager require that certain metadata be loaded into the database.

For environments that do not deploy the Audit and Compliance Module, execute:

```
<PATCH>\Database\Utilities\LoadXML.<bat or sh>
```

For environments that deploy the Audit and Compliance Module, execute:

```
<PATCH>\Database\Utilities\LoadXML_XACM.<bat or sh>
```

---

**Note:** Refer to [Appendix B, "Loading Metadata into the Database"](#) for more information on executing this script.

---

## Preparing for the Upgrade

Before you upgrade to Oracle Identity Manager Release 9.0.1.2, you must prepare for the upgrade by performing pre-upgrade configuration tasks on the following components:

- Oracle Identity Manager server
- Administrative and User Console
- Design Console
- Remote Manager

### Preparing the Oracle Identity Manager Server for Upgrade

Prepare the Oracle Identity Manager server for upgrade to Release 9.0.1.2 by updating the Release 9.0.1.1.x libraries, scripts, and configuration files using the information in this section.

---

**Note:** If you are upgrading to Release 9.0.1.2 in a WebSphere cluster, perform the steps in this section on the NDM host machine.

---

1. Extract the contents of the Oracle Identity Manager Release 9.0.1.2 upgrade package to a temporary directory on the machine where the Oracle Identity Manager Release 9.0.1.1.x server is installed—this document refers to this temporary directory as `<PATCH>`.
2. Back up your existing `<XL_HOME>\xellerate\` directory.
3. Recursively copy the `<PATCH>\xellerate\` directory (including its subdirectories) to the `<XL_HOME>\xellerate\` directory overwriting the existing files.
4. Recursively copy the `<PATCH>\documentation\` directory (including its subdirectories) to the `<XL_HOME>\documentation\` directory.
5. Update your existing Release 9.0.1.1.x Oracle Identity Manager server `xlconfig.xml` configuration file in the `<XL_HOME>/xellerate/config/` directory to include the following new parameters introduced in Release 9.0.1.2:

- a. Set the `<xl-configuration><Cache><ServerProperties><Enable>` parameter to `TRUE`, for example:

```
<xl-configuration><Cache><ServerProperties><Enable>TRUE</Enable>
</ServerProperties></xl-configuration>
```

- b. Locate the `<xl-configuration><Cache>` parameter. After the `<xl-configuration>.<Cache>.<ColumnMetaData>` entry, but before the `</Cache>` entry, add the following entry:

```
<API>
  <Enable>>false</Enable>
  <ExpireTime>14400</ExpireTime>
</API>
```

6. Edit the requestPreview script located in the <XL\_HOME>/xellerate/bin/ directory according to your database and operating system. If your database is running on Windows, edit the requestPreview.bat script. If your database is running on UNIX or Linux, edit the requestPreview.sh script. Make the following changes:

#### Oracle

Set JAVA\_HOME to the location of the JDK that was selected when Oracle Identity Manager was installed. You can verify this value by checking the appserver.jdk.location property in the <XL\_HOME>\xellerate\Profiles\websphere.profile file. For example, the appserver.jdk.location property might be the following:

```
appserver.jdk.location=<WEBSPPHERE_HOME>/java
```

#### SQL Server

- Set JAVA\_HOME to the location of the JDK that was selected when Oracle Identity Manager was installed. You can verify this value by checking the appserver.jdk.location property in the <XL\_HOME>\xellerate\Profiles\websphere.profile file. For example, the appserver.jdk.location property might be the following:

```
appserver.jdk.location=<WEBSPPHERE_HOME>/java
```

- Set SQL\_SERVER\_DRIVER\_DIR to the path of the directory that contains the mssqlserver.jar, msbase.jar, and msutil.jar files.
- Uncomment the SQL\_SERVER\_DRIVER\_DIR parameter.

### Preparing the Administrative and User Console for Upgrade

Several Administrative and User Console files were modified between Release 9.0.1.1.x and Release 9.0.1.2. If you customized your Release 9.0.1.1.x Administrative and User Console, that is, you made changes to the default, stock Administrative and User Console that shipped with Release 9.0.1.1.x, you must add your customizations into the new Release 9.0.1.2 Administrative and User Console files.

Refer to [Appendix C, "Upgrading Customized Administrative and User Consoles"](#) if you customized your Release 9.0.1.1.x Administrative and User Console.

If you did not customize your Release 9.0.1.1.x Administrative and User Console, skip this section and continue the upgrade process by referring to [Preparing the Design Console for Upgrade](#).

### Preparing the Design Console for Upgrade

Prepare the Oracle Identity Manager Design Console for upgrade to Release 9.0.1.2 by updating your Release 9.0.1.1.x Design Console libraries, scripts, and configuration files using the following steps:

1. Back up your existing <XL\_DC\_HOME>\xlclient\ directory
2. Recursively copy the <PATCH>\xlclient\ directory (including its subdirectories) to the <XL\_DC\_HOME>\xlclient\ directory overwriting the existing files.

### Preparing the Remote Manager for Upgrade

Prepare the Oracle Identity Manager Remote Manager for upgrade to Release 9.0.1.2 by updating your Release 9.0.1.1.x Remote Manager libraries, scripts, and configuration files using the following steps:

1. Backup the <XL\_RM\_HOME>\xlremote\lib\ directory.
2. Copy the contents of the <PATCH>\xlremote\lib\ directory to the <XL\_RM\_HOME>\xlremote\lib\ directory, overwriting files if necessary.

## Performing the Upgrade

Upgrading from an existing Oracle Identity Manager Release 9.0.1.1.x deployment to Oracle Identity Manager Release 9.0.1.2 involves assembling a new enterprise application archive (EAR) file from the latest libraries, then redeploying the EAR.

Use the following steps to perform the upgrade to Release 9.0.1.2 for both a single WebSphere application server and WebSphere clusters:

1. Enable SOAP communication to NDM/WAS for the patch utility. Edit the <NDM|WAS\_INSTALL\_DIR>\properties\soap.client.props to enable security with the following properties:

```
com.ibm.SOAP.securityEnabled=true
com.ibm.SOAP.loginUserid=xelsysadm
com.ibm.SOAP.loginPassword=xelsysadm
```

2. Copy <PATCH>\xellerate\ext\ojdbc14.jar to the <WEBSPPHERE\_HOME>\AppServer\lib\ext\ directory and overwrite the existing file if necessary.

For a WebSphere cluster, copy <PATCH>\xellerate\ext\ojdbc14.jar to the <WEBSPPHERE\_HOME>\AppServer\lib\ext\ directory on all cluster participants, overwriting the existing files if necessary.

3. For a single WebSphere application server, make sure the WebSphere application server is running and execute one of the following patch\_websphere scripts.

For a WebSphere cluster, make sure the WebSphere application server is running on all nodes in the cluster and that the Deployment Manager is running on the NDM host. Execute one of the following patch\_websphere scripts on the NDM host.

### Windows:

- Run <XL\_HOME>\xellerate\setup\patch\_websphere.cmd

### UNIX and Linux:

- Run <XL\_HOME>/xellerate/setup/patch\_webpsphere.sh

4. For a single WebSphere application server, stop and restart the application server after running the patch\_websphere script to complete the upgrade to Release 9.0.1.2.

For a WebSphere cluster, stop the cluster components in the following order and proceed to the next step:

- a. Stop the cluster using the Admin Console
- b. Stop the JMS server using the Admin Console
- c. Stop the NDM

5. Complete the upgrade to Release 9.0.1.2 for a WebSphere cluster using the following steps:

- a. Copy the <XL\_HOME> directory from the NDM host to all cluster participants—including the JMS host— while maintaining the same directory hierarchy structure.

- b. Run the `setupWebSphereCustomRegistry.cmd` script on the NDM host, JMS host, and all cluster participants. The `setupWebSphereCustomRegistry.cmd` script is located in the `<XL_HOME>/xellerate/setup/` directory. Run the `setupWebSphereCustomRegistry.cmd` script as follows, where `<WEBSPPHERE_HOME>` is the home directory of WebSphere:

```
setupWebSphereCustomRegistry.cmd <WEBSPPHERE_HOME>
```

- c. Start the NDM, start the JMS server, and then start the cluster using the Admin Console to complete the cluster upgrade to Release 9.0.1.2.

### Updating the Design Console `xlDataObjectBeans.jar`

After performing the upgrade to Release 9.0.1.2, you must update the Design Console `xlDataObjectBeans.jar` file using the following steps:

1. Log in to the WebSphere Administrative Console
2. Click **Applications** and then click **Enterprise Applications**.
3. Select the **Xellerate** application option and click **Export**.
4. Save the generated `xellerate.ear`
5. Extract `xlDataObjectBeans.jar` from `xellerate.ear`.
6. Copy `xlDataObjectBeans.jar` to the `<XL_DC_HOME>\xlclient\lib\` directory.

## Migrating Release 9.0.1.1.x Custom Code

You can recycle custom code used in your Release 9.0.1.1.x environment into your newly upgraded Release 9.0.1.2 environment.

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**Note:** Before you migrate custom code from the Release 9.0.1.1.x environment, you must first recompile the custom code using the Oracle Identity Manager Release 9.0.1.2 libraries.

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The following is a list of the customized items you can migrate from your Release 9.0.1.1.x environment and reuse in Release 9.0.1.2 after recompiling using the Release 9.0.1.2 libraries:

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**Note:** For clustered environments, after recompiling the following customized items using the Release 9.0.1.2 libraries, copy the recompiled code to the remaining participants in the cluster.

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- Custom java code recompiled using the integrated development environment (that is, Eclipse, JDeveloper, WASD or command line `javac`) and Release 9.0.1.2 libraries.
- Custom java libraries bound to functional Oracle Identity Manager Release 9.0.1.1.x adapters recompiled using Release 9.0.1.2 libraries. You do not need to recompile the adapters.
- Custom scheduled tasks recompiled using Release 9.0.1.2 libraries.
- Custom event handlers recompiled using Release 9.0.1.2 libraries.
- Custom clients that were built using Oracle Identity Manager Release 9.0.1.1.x APIs must be updated to make them compatible with the Oracle Identity Manager Release 9.0.1.2 APIs.



For example, certain APIs might have been deprecated and replaced by new APIs. Refer to the *Oracle Identity Manager Release 9.0.1.2 Release Notes* for information on API changes between Oracle Identity Manager Release 9.0.1.1.x and Release 9.0.1.2.

## Redeploying the Diagnostic Dashboard

After upgrading to Release 9.0.1.2, you must redeploy the Diagnostic Dashboard using the following steps:

1. Remove the existing XIMDD application using the WebSphere Admin Console.
2. Use the <XL\_HOME>\xellerate\webapp\XIMDD.war file and the instructions in the "Installing the Diagnostic Dashboard" section in the "Working with the Diagnostic Dashboard" chapter of the *Oracle Identity Manager Administrative and User Console Guide* to redeploy the Diagnostic Dashboard.



## Executing the SQL Server Upgrade Scripts

The Release 9.0.1.2 upgrade package includes command line scripts that will upgrade the SQL Server database and associated stored procedures for Oracle Identity Manager. These command line scripts execute a set of SQL Server scripts through the OSQL interface on the SQL Server database. The command line scripts support the following arguments:

**Table A-1 Supported Arguments for the SQL Server Command Line Upgrade Scripts**

Arguments	Description
<server-name[\\instance-name]>	The name of the server under the “SQL Server Group” in Enterprise Manager. \\instance-name represents the instance running under the server.
<db-user>	The database user ID
<password>	The password of db-user
<db-name>	The name of the database
<script-location>	The absolute path to the command line script

For example:

- To upgrade the database, run <PATCH>\\Database\\SQLServer\\Scripts\\upg\_9011x\_to\_9012.bat with the following command-line arguments:  

```
<PATCH>\\Database\\SQLServer\\Scripts\\upg_9011x_to_9012.bat
<server-name[\\instance-name]> <db-user> <password> db-name>
<PATCH>\\Database\\SQLServer\\Scripts
```
- To compile the new stored procedures, run <PATCH>\\Database\\SQLServer\\StoredProcedures\\compile\_all\_XL\_SP.bat with the following command-line arguments:  

```
<PATCH>/Database\\SQLServer\\StoredProcedures\\compile_all_XL_SP.bat
<server-name[\\instance-name]> <db-user> <password> <db-name>
<PATCH>\\Database\\SQLServer\\StoredProcedures
```
- To upgrade the Oracle Identity Manager Audit and Compliance module, run <PATCH>\\Database\\SQLServer\\Scripts\\SQLServer\_Enable\_XACM.bat with the following command-line arguments:  

```
<PATCH>\\Database\\SQLServer\\Scripts\\SQLServer_Enable_XACM.bat
<server-name[\\instance-name]> <db-user> <password> <db-name>
<PATCH>\\Database\\SQLServer\\Scripts\\
```



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## Loading Metadata into the Database

The information in this appendix explains how to run the LoadXML and LoadXML\_XACM scripts that load metadata into your database. Complete the following steps to run the LoadXML and LoadXML\_XACM scripts located in the <PATCH>/Database/Utilities/ directory:

1. As appropriate for your environment (depending on operating system and whether or not you deploy the Audit and Compliance Module), edit either the LoadXML or LoadXML\_XACM script and update the JAVA\_HOME variable.
2. As appropriate for your environment (depending on your database and operating system), complete the following steps:

### SQL Server:

- a. Launch a plain-text editor, open the file LoadXML.bat, and uncomment the following line:

```
REM SET SQL_SERVER_DRIVER_DIR=
```

- b. Assign the path to the SQL Server driver directory that contains the msbase.jar, msutil.jar and mssqlserver.jar files:

```
SET SQL_SERVER_DRIVER_DIR=<PATH_TO_SQL_DRIVER>
```

### Oracle on Windows:

- a. Launch a plain-text editor, open LoadXML.bat, and uncomment the following line:

```
REM SET ORACLE_DRIVER_DIR=
```

- b. Assign the path to the Oracle driver directory containing the Oracle JDBC drivers:

```
SET ORACLE_DRIVER_DIR=<PATH_TO_ORACLE_DRIVER>
```

### Oracle on UNIX and Linux:

- a. Launch a plain-text editor, open LoadXML.sh, then uncomment the following lines:

```
#ORACLE_DRIVER_DIR=  
#export ORACLE_DRIVER_DIR
```

- b. Assign the path to the JDBC driver for Oracle, so that the line reads something like the following:

```
ORACLE_DRIVER_DIR=<PATH_TO_ORACLE_DRIVER>  
export ORACLE_DRIVER_DIR
```

- 
3. Open a command prompt or console and run the appropriate LoadXML or LoadXML\_XACM script in the <PATCH>/Database/Utilities/ directory. Use the LoadXML script if you do not deploy the Audit and Compliance Module, and use the LoadXML\_XACM script if you deploy the Audit and Compliance Module.

Execute the script using the following parameters (in the following order) for the type of database you are using:

**Oracle:**

- a. JDBC URL (for example: jdbc:oracle:thin:@<db\_host\_ip>:<port>:<SID>)
- b. Database user name
- c. Password

**SQL Server:**

- a. JDBC URL (for example: jdbc:microsoft:sqlserver://<ipaddress>:<port>)
- b. Database name
- c. Database user name
- d. Password

## Upgrading Customized Administrative and User Consoles

Several Administrative and User Console files were modified between Release 9.0.1.1.x and Release 9.0.1.2. If you customized your Release 9.0.1.1.x Administrative and User Console, you must add your customizations into the new Release 9.0.1.2 Administrative and User Console files.

The following tables list the Administrative and User Console files that were modified between Release 9.0.1.1.x and Release 9.0.1.2. Review the table for the release you are migrating from. For each file listed in the table, compare your existing, customized Release 9.0.1.1.x version of the file to the new Release 9.0.1.2 file to identify your customizations. After identifying your customizations in your existing Release 9.0.1.1.x files, add them into the new Release 9.0.1.2 files.

If you are migrating from Release 9.0.1.1 or Release 9.0.1.1.1 to Release 9.0.1.2, review the list of files in [Table C-1](#).

If you are migrating from Release 9.0.1.1.2 to Release 9.0.1.2, review the list of files in [Table C-2](#).

The Release 9.0.1.2 Administrative and User Console files are located in the xlWebApp.war file in the Release 9.0.1.2 upgrade package.

**Table C-1 Files to Compare if Migrating from Release 9.0.1.1 or Release 9.0.1.1.1**

Path in xlWebApp.war	Files
/tiles/	tjspWebAdminHome.jsp
	requestApprovalDetailTiles.jsp
	ResourceProfileProvisioningTasksConfirmAddTaskTiles.jsp
	OrgResourceProfileDisplayAddTasksTiles.jsp
	OrgResourceProfileProvisioningTasksConfirmAddTaskTiles.jsp
	OrgResourceProfileProvisioningTasksTiles.jsp
	ResourceProfileDisplayAddTasksTiles.jsp
	ResourceProfileProvisioningTasksTiles.jsp
	TaskStatusConfirmationTiles.jsp
	TaskShowAllStatusTiles.jsp
	requestDetailTiles.jsp
	changePasswordTiles.jsp
	tjspEditGroupTiles.jsp

**Table C–1 (Cont.) Files to Compare if Migrating from Release 9.0.1.1 or Release 9.0.1.1.1**

Path in xlWebApp.war	Files
	tjspEditOrganizationConfirmationTiles.jsp
	tjspEditUserTiles.jsp
	requestEntityDetailTiles.jsp
	tjspLogoffTimeoutTiles.jsp
	requestResourceResolutionTiles.jsp
	requestResourceTiles.jsp
	TaskHistoryTiles.jsp
	TaskDetailsTiles.jsp
/tiles/util/	tjspForm.jsp
	tjspGenerateCreateOrganizationForm.jsp
	ReportFormFieldsDisplay.jsp
	tjspGenerateSearchForm.jsp
	tjspGenerateViewForm.jsp
	tjspGenerateOrganizationViewForm.jsp
	tjspGenerateCreateUserForm.jsp
	tjspGenerateEditForm.jsp
/pages/	OrgResourceProfileDisplayAddTasks.jsp
	OrgResourceProfileProvisioningTasksConfirmAddTask.jsp
	ResourceProfileDisplayAddTasks.jsp
	ResourceProfileProvisioningTasksConfirmAddTask.jsp
/WEB-INF/	struts-config.xml
	tiles-defs.xml
/layouts/	tjspClassicLayout.jsp
	tjspMenuNoStruts.jsp
/WEB-INF/classes/xlWebAdmin.properties	
/pages/TaskHistoryPage.jsp	

**Table C–2 Files to Compare if Migrating from Release 9.0.1.1.2**

Path in xlWebApp.war	Files
/tiles/	requestDetailTiles.jsp
	changePasswordTiles.jsp
	tjspEditGroupTiles.jsp
	tjspEditOrganizationConfirmationTiles.jsp
	tjspEditUserTiles.jsp
	requestEntityDetailTiles.jsp
	tjspLogoffTimeoutTiles.jsp



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**Table C–2 (Cont.) Files to Compare if Migrating from Release 9.0.1.1.2**

Path in xlWebApp.war	Files
	TaskShowAllStatusTiles.jsp
	requestResourceResolutionTiles.jsp
	requestResourceTiles.jsp
	TaskDetailsTiles.jsp
/tiles/util/	ReportFormFieldsDisplay.jsp
	tjspGenerateSearchForm.jsp
	tjspGenerateCreateUserForm.jsp
	tjspGenerateViewForm.jsp
	tjspGenerateEditForm.jsp
	tjspGenerateOrganizationViewForm.jsp
	tjspGenerateCreateOrganizationForm.jsp
/layouts/tjspMenuNoStruts.jsp	

