Oracle® Identity Manager

Upgrade Guide

Release 9.0.3

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Oracle Identity Manager Upgrade Guide Release 9.0.3

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Contents

A Executing the SQL Server Upgrade Scripts

B Loading Metadata into the Database

C Upgrading Customized Administrative and User Consoles

Preface

The *Upgrade Guide* explains how to upgrade from Oracle Identity Manager Release 9.0.2 to Release 9.0.3. Oracle Identity Manager has formerly been known as both Oracle Xellerate Identity Provisioning and Thor Xellerate Identity Manager.

> **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.

Audience

The *Upgrade Guide* for Release 9.0.3 is intended for system administrators who plan to upgrade from Oracle Identity Manager Release 9.0.2 to Release 9.0.3.

Documentation Accessibility

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Related Documents

For more information, see the following documents in the Oracle Identity Manager documentation set:

- *Oracle Identity Manager Administrative and User Console Guide*

- *Oracle Identity Manager Administrative and User Console Customization Guide*

- *Oracle Identity Manager API Usage Guide*

- *Oracle Identity Manager Audit Report Developer's Guide*

- *Oracle Identity Manager Best Practices Guide*

- *Oracle Identity Manager Design Console Guide*

- *Oracle Identity Manager Globalization Guide*

- *Oracle Identity Manager Glossary of Terms*

- *Oracle Identity Manager Installation Guide for JBoss*

- *Oracle Identity Manager Installation Guide for Oracle Containers for J2EE*

- *Oracle Identity Manager Installation Guide for WebLogic*

- *Oracle Identity Manager Installation Guide for WebSphere*

- *Oracle Identity Manager Integration Guide for Crystal Reports*

- *Oracle Identity Manager Tools Reference Guide*

Documentation Updates

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

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Convention	Meaning
<*_HOME>	The directory where an application is installed. The directory where you install Oracle Identity Manager server is referred to as *<XL_HOME>*. Each Oracle Identity Manager component includes its own abbreviation, for example: *<XL_DC_HOME>* for the Design Console and *<XL_RM_HOME>* for the Remote Manager.
	<JBOSS_HOME> represents the location where the JBoss application server is installed. *<WEBSPHERE_HOME>* represents the location where the WebSphere application server is installed. *<BEA_HOME>* represents the location where the WebLogic application server is installed.
Release 9.0.3	Refers specifically to Oracle Identity Manager Release 9.0.3.
Release 9.0.2	Refers specifically to Oracle Identity Manager Release 9.0.2.

1

Overview

This document refers to Oracle Identity Manager Release 9.0.3 simply as Release 9.0.3.

You can upgrade to Release 9.0.3 *only* from Oracle Identity Manager Release 9.0.2—do not attempt to upgrade to Release 9.0.3 from any other previous Oracle Identity Manager release.

Extract the contents of the Release 9.0.3 upgrade package to a temporary directory on your existing Release 9.0.2 system.

> **Note:** This document refers to this temporary directory as *<PATCH>*.

2

Upgrading to Release 9.0.3 from Release 9.0.2 on JBoss Application Servers

This chapter explains how to upgrade to Release 9.0.3 from Release 9.0.2 on JBoss application servers—do not attempt to upgrade to Release 9.0.3 from any other previous Oracle Identity Manager release.

Extract the contents of the Release 9.0.3 upgrade package to a temporary directory on your existing Release 9.0.2 system.

> **Note:** This document refers to this temporary directory as *<PATCH>*.

The following is a list of the steps in this section that explain how to upgrade from Release 9.0.2 to Release 9.0.3 on JBoss:

1. Backing Up Your Existing Release 9.0.2 Deployment
2. Upgrading the Database for Oracle Identity Manager
3. Install JBoss 4.0.3 with Service Pack 1(SP1)
4. Install Release 9.0.3 Using the Oracle Identity Manager Installer Program
5. Migrating Release 9.0.2 Custom Code

Backing Up Your Existing Release 9.0.2 Deployment

The first step for upgrading to Release 9.0.3 is to back up your existing Release 9.0.2 deployment to ensure that no data is lost during the upgrade process. If the upgrade fails, you can use this backup to restore the Release 9.0.2 deployment to its original state. Back up the following:

- Oracle Identity Manager server
- Oracle Identity Manager Design Console
- Oracle Identity Manager Administrative and User Console
- Oracle Identity Manager Remote Manager
- Database used for Release 9.0.2

Upgrading the Database for Oracle Identity Manager

Perform the following steps to upgrade your existing Release 9.0.2 database instance to Release 9.0.3:

1. Extract the contents of the Oracle Identity Manager Release 9.0.3 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. Verify your database is properly configured by referring to the database vendor's documentation and the *Oracle Identity Manager Installation and Upgrade Guide* specific to your application server.

4. Upgrade your database schema from Oracle Identity Manager Release 9.0.2 to Release 9.0.3 by using the one of the following scripts appropriate for your database and operating system. Be sure to run the script on the machine where the database resides.

   > **Note:** The oim_db_upg_902_to_903 script also upgrades the required stored procedures for Oracle.

   Oracle on Linux:

   a. Run the following script on the system where the database for Oracle Identity Manager Release 9.0.2 is installed to upgrade the database schema:

   ```
   <PATCH>/db/oracle/Scripts/oim_db_upg_902_to_903.sh
   ```

   b. Enter the appropriate information for the Oracle database when prompted by the oim_db_upg_902_to_903.sh script.

   Oracle on Windows:

   Run the following batch script on the system where the Release 9.0.2 database is installed to upgrade the database schema:

   ```
   <PATCH>\db\oracle\Scripts\oim_db_upg_902_to_903.bat
   ```

   The following is the command line usage for the Oracle oim_db_upg_902_to_903.bat script:

   ```
   oim_db_upg_902_to_903.bat <ORACLE_SID> <ORACLE_HOME> <ORACLE_XELL_USER>
   <ORACLE_XELL_USER_PWD> <PATCH>
   ```

   SQL Server:

   Run the *<PATCH>*\db\SQLServer\Scripts\upg_902_to_903.bat batch file. Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

5. Perform the following steps to recompile the stored procedures for your database:

   > **Note:** If you are using an Oracle database, you can skip this step as running the oim_db_upg_902_to_903 script already created the required stored procedures for Oracle.

   SQL Server:

   a. Launch a plain-text editor, then open:

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

b. 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

c. Run the following script:

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

Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

6. Perform the following steps appropriate for your database to upgrade the Oracle Identity Manager Audit and Compliance module:

Oracle:

a. Log in to SQL *Plus with the credentials of the Oracle Identity Manager Release 9.0.2 database schema owner.

b. Run the following script:

```
<PATCH>/db/oracle/Scripts/Oracle_Enable_XACM.sql
```

SQL Server:

Run the following script:

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

Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

7. The user profile auditing feature and the reports feature require that certain metadata be loaded into the database. As appropriate for the operating system on the machine hosting your Oracle Identity Manager server, load Oracle Identity Manager metadata into your database by executing one of the following commands:

Windows:

Run the following .bat file:

```
<PATCH>\db\Utilities\LoadXML.bat
```

Linux:

Run the following script:

```
<PATCH>/db/Utilities/LoadXML.sh
```

Refer to Appendix B, "Loading Metadata into the Database" for more information on executing this script.

Install JBoss 4.0.3 with Service Pack 1(SP1)

Release 9.0.3 is certified on the JBoss 4.0.3 with SP1 application server. You must install JBoss 4.0.3 with SP1 to upgrade to Release 9.0.3. Refer to the JBoss application server documentation for details on installing JBoss 4.0.3 with SP1.

Install Release 9.0.3 Using the Oracle Identity Manager Installer Program

Install Release 9.0.3 using the Oracle Identity Manager Release 9.0.3 installer program and refer to the *Oracle Identity Manager Installation Guide for JBoss* for complete information about installing Release 9.0.3 on JBoss.

> **Important:** When installing Release 9.0.3, be sure you point to the existing database you upgraded to Release 9.0.3 on the Database Server Selection screen in the installer program. Enter the information for existing database you upgraded to Release 9.0.3 in the following fields on the Database Server Selection screen:
>
> - **Host**
> - **Port**
> - **Database SID**
> - **User Name**
> - **Password**
>
> When Oracle Identity Manager is installed against an existing database, the .xldatabasekey file from the existing Oracle Identity Manager installation must be copied to the new <XL_HOME>\xellerate\config directory. You should create the \config directory in the new <XL_HOME>\xellerate\ path if it does not already exist.

Migrating Release 9.0.2 Custom Code

You can migrate custom code used in your Release 9.0.2 environment into your new Release 9.0.3 environment. Before you migrate custom code from the Release 9.0.2 environment, you must first recompile the custom code using the Release 9.0.3 libraries located in the *<XL_HOME>*/xellerate/lib directory.

Using the integrated development environment that originally compiled the Release 9.0.2 custom code (that is, Eclipse, JDeveloper, WASD or command line javac), recompile all custom java code using the Release 9.0.3 libraries.

The following is a list of the custom items you can migrate from Release 9.0.2 and reuse in Release 9.0.3 after recompiling using the Release 9.0.3 libraries.

> **Note:** For clustered environments, after recompiling the following items using the Release 9.0.3 libraries, copy them to each participant node in the cluster.

- Custom java libraries bound to functional Oracle Identity Manager Release 9.0.2 adapters recompiled using Release 9.0.3 libraries. You do not need to recompile the adapters. You must copy the recompiled custom java libraries in the Release 9.0.2 *<XL_HOME>*/xellerate/JavaTasks directory to the Release 9.0.3 *<XL_HOME>*/xellerate/JavaTasks directory. You must copy the recompiled custom java libraries in the Release 9.0.2 *<XL_RM_HOME>*/xellerate/JavaTasks directory to the Release 9.0.3 *<XL_RM_HOME>*/xellerate/JavaTasks directory.
- Custom scheduled tasks recompiled using Release 9.0.3 libraries. You must copy the recompiled custom scheduled tasks to the Release 9.0.3 *<XL_HOME>*/xellerate/ScheduleTask directory.

- Custom event handlers recompiled using Release 9.0.3 libraries. You must copy the recompiled custom scheduled tasks to the Release 9.0.3 *<XL_HOME>*/xellerate/EventHandlers directory.

- Connector Resource bundles by copying the Release 9.0.2 *<XL_HOME>*/xellerate/connectorResources directory to the Release 9.0.3 *<XL_HOME>*/xellerate/connectorResources directory.

- Custom Resources by copying the Release 9.0.2 *<XL_HOME>*/xellerate/customResources directory to the Release 9.0.3 *<XL_HOME>*/xellerate/customResources directory.

- Custom Administrative and User Console deployments. Several Administrative and User Console files were modified in Release 9.0.3. If you customized your Release 9.0.2 Administrative and User Console, that is, you made changes to the default, stock Administrative and User Console that shipped with Release 9.0.2, you must add your customizations into the new Release 9.0.3 Administrative and User Console files using the following steps:

  1. Refer to Appendix C, "Upgrading Customized Administrative and User Consoles" to identify the Administrative and User Console files modified in Release 9.0.3 and to add your Release 9.0.2 customizations into the Release 9.0.3 files.

  2. Stop the JBoss application server gracefully by running one of the following commands, as appropriate for the operating system on the machine hosting the Oracle Identity Manager server:

     Windows

     ```
     <JBOSS_HOME>\bin\shutdown.bat -S
     ```

     UNIX and Linux

     ```
     <JBOSS_HOME>/bin/shutdown.sh -S
     ```

  3. Patch your updated Release 9.0.3 Administrative and User Console by running the following command:

     Windows

     ```
     <XL_HOME>\xellerate\setup\patch_jboss.cmd
     ```

     UNIX and Linux

     ```
     <XL_HOME>/xellerate/setup/patch_jboss.sh
     ```

3

Upgrading to Release 9.0.3 from Release 9.0.2 on WebLogic Application Servers

This chapter explains how to upgrade to Release 9.0.3 from Release 9.0.2 on WebLogic application servers—do not attempt to upgrade to Release 9.0.3 from any other previous Oracle Identity Manager release.

Release 9.0.3 is certified on the WebLogic 8.1 with SP6 application server. You must upgrade to WebLogic 8.1 with SP6 as part of the process for upgrading to Release 9.0.3.

> **Note:** If you are a new Oracle Identity Manager customer and Release 9.0.3 is your initial deployment of the product, you can skip this chapter and simply run the Release 9.0.3 installer program to deploy Release 9.0.3.

Extract the contents of the Release 9.0.3 upgrade package to a temporary directory on your existing Release 9.0.2 system.

> **Note:** This document refers to this temporary directory as *<PATCH>*.

The following is a list of the steps in this section that explain how to upgrade from Release 9.0.2 to Release 9.0.3 on WebLogic:

1. Upgrading the Database for Oracle Identity Manager
   - Upgrading an Existing Database Instance In-Place
   - Creating a New Database Instance for the Upgrade
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 9.0.2 Custom Code
5. Upgrading the Diagnostic Dashboard
6. Post-Upgrade Configuration

Upgrading the Database for Oracle Identity Manager

Choose one of the following approaches to upgrade the database used by your Oracle Identity Manager Release 9.0.2 deployment:

- Perform an in-place upgrade of the existing database configured for Release 9.0.2—refer to Upgrading an Existing Database Instance In-Place.

- Create a new instance of the database for Release 9.0.3, then import the data used by your Release 9.0.2 deployment into that new database and perform the upgrade—refer to Creating a New Database Instance for the Upgrade.

Before you upgrade your database, perform the following steps:

1. Extract the contents of the Oracle Identity Manager Release 9.0.3 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.

Upgrading an Existing Database Instance In-Place

This approach upgrades your existing Release 9.0.2 database instance by upgrading the database schema while your database remains in-place.

1. 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 9.0.2 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.

2. Verify your database is properly configured by referring to the database vendor's documentation and the *Oracle Identity Manager Installation and Upgrade Guide* specific to your application server.

3. Upgrade your database schema from Oracle Identity Manager Release 9.0.2 to Release 9.0.3 by using the one of the following scripts appropriate for your database and operating system. Be sure to run the script on the machine where the database resides.

   > **Note:** The oim_db_upg_902_to_903 script also upgrades the required stored procedures for Oracle.

   Oracle on UNIX:

   a. Run the following script on the system where the database for Oracle Identity Manager Release 9.0.2 is installed to upgrade the database schema:

      ```
      <PATCH>/db/oracle/Scripts/oim_db_upg_902_to_903.sh
      ```

   b. Enter the appropriate information for the Oracle database when prompted by the oim_db_upg_902_to_903.sh script.

   Oracle on Windows:

   Run the following batch script on the system where the Release 9.0.2 database is installed to upgrade the database schema:

```
<PATCH>\db\oracle\Scripts\oim_db_upg_902_to_903.bat
```

The following is the command line usage for the Oracle oim_db_upg_902_to_903.bat script:

```
oim_db_upg_902_to_903.bat <ORACLE_SID> <ORACLE_HOME> <ORACLE_XELL_USER>
<ORACLE_XELL_USER_PWD> <PATCH>
```

SQL Server:

Run the <PATCH>\db\SQLServer\Scripts\upg_902_to_903.bat batch file. Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

4. Perform the following steps to recompile the stored procedures for your database:

> **Note:** If you are using an Oracle database, you can skip this step as running the oim_db_upg_902_to_903 script already created the required stored procedures for Oracle.

SQL Server:

a. Launch a plain-text editor, then open:

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

b. 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

c. Run the following script:

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

Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

5. Perform the following steps appropriate for your database to upgrade the Oracle Identity Manager Audit and Compliance module:

Oracle:

a. Log in to SQL *Plus with the credentials of the Oracle Identity Manager Release 9.0.2 database schema owner.

b. Run the following script:

```
<PATCH>/db/oracle/Scripts/Oracle_Enable_XACM.sql
```

SQL Server:

Run the following script:

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

Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

6. The user profile auditing feature and the reports feature require that certain metadata be loaded into the database. As appropriate for the operating system on the machine hosting your Oracle Identity Manager server, load Oracle Identity

Manager metadata into your database by executing one of the following commands:

Windows:

Run the following .bat file:

`<PATCH>\db\Utilities\LoadXML.bat`

UNIX:

Run the following script:

`<PATCH>/db/Utilities/LoadXML.sh`

Refer to Appendix B, "Loading Metadata into the Database" for more information on executing this script.

Creating a New Database Instance for the Upgrade

In this approach, you create a new database instance for Release 9.0.3, then import the data used by your Release 9.0.2 deployment into that new database and perform the upgrade. This method ensures that your current working database remains available if a rollback is required. Use the following steps for creating a new, upgraded database instance:

1. 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 9.0.2 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.

2. Create a new database by referring to the database vendor's documentation and the *Oracle Identity Manager Installation and Upgrade Guide* specific to your application server.

   > **Note:** If you create a new database, be sure to specify the user name and password used by your original database instance as the credentials for your new database.

3. Using the import utility provided by your particular database, import the data you exported from your Release 9.0.2 database into your newly created Release 9.0.3 database. This creates an exact copy of your original database instance.

4. Upgrade your database schema from Oracle Identity Manager Release 9.0.2 to Release 9.0.3 by using the one of the following scripts appropriate for your database and operating system. Be sure to run the script on the machine where the database resides.

   Oracle on UNIX:

   Run the following script on the new Release 9.0.3 database system and enter the appropriate information when prompted to upgrade the database schema:

   `<PATCH>/db/oracle/Scripts/oim_db_upg_902_to_903.sh`

> **Note:** The oim_db_upg_902_to_903 script also upgrades the required stored procedures for Oracle.

Oracle on Windows:

Run the following batch script on the new Release 9.0.3 database system to upgrade the database schema:

```
<PATCH>\db\oracle\Scripts\oim_db_upg_902_to_903.bat
```

The following is the command line usage for the Oracle oim_db_upg_902_to_903.bat script:

```
oim_db_upg_902_to_903.bat <ORACLE_SID> <ORACLE_HOME> <ORACLE_XELL_USER>
<ORACLE_XELL_USER_PWD> <PATCH>
```

SQL Server:

Run the following script:

```
<PATCH>\db\SQLServer\Scripts\upg_902_to_903.bat
```

Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

5. Perform the following steps to recompile the stored procedures for your database:

> **Note:** If you are using an Oracle database, you can skip this step as running the oim_db_upg_902_to_903 script already created the required stored procedures for Oracle.

SQL Server:

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

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

b. 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.

c. Run the following script:

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

Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

6. Perform the following steps appropriate for your database to upgrade the Oracle Identity Manager Audit and Compliance module:

Oracle:

a. Log in to SQL *Plus with the credentials of the Oracle Identity Manager Release 9.0.2 database schema owner.

b. Run the following script:

```
<PATCH>/db/oracle/Scripts/Oracle_Enable_XACM.sql
```

SQL Server:

Run the following script:

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

Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

7. The user profile auditing feature and the reports feature require that certain metadata be loaded into the database. As appropriate for the operating system on the machine hosting your Oracle Identity Manager server, load Oracle Identity Manager metadata into your database by executing one of the following commands:

Windows:

Run the following script:

`<PATCH>\db\Utilities\LoadXML.bat`

UNIX:

Run the following script:

`<PATCH>/db/Utilities/LoadXML.sh`

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 9.0.3, 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 9.0.3 by updating the Release 9.0.2 libraries, scripts, and configuration files using the information in this section.

> **Note:** If you are upgrading to Release 9.0.3 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 9.0.3 upgrade package to a temporary directory on the machine where the Oracle Identity Manager Release 9.0.2 server is installed—this document refers to this temporary directory as *<PATCH>*.

2. Backup the following directories.

   - *<XL_HOME>*\xellerate\config

- *<XL_HOME>*\xellerate\DDTemplates
- *<XL_HOME>*\xellerate\lib
- *<XL_HOME>*\xellerate\setup
- *<XL_HOME>*\xellerate\webapp
- *<XL_HOME>*\xellerate\ext
- *<XL_HOME>*\xellerate\connectorResources
- *<XL_HOME>*\documentation

3. Copy the directories and files listed in the location of the **From** column in the following table to the location listed in the **To** column in the following table. Overwrite the existing files in the **To** location if necessary.

Table 3–1   Oracle Identity Manager Server Pre-Upgrade Files to Copy

Copy From....	To
<PATCH>\xellerate\DDTemplates\	*<XL_HOME>*\xellerate\DDTemplates\
<PATCH>\xellerate\lib\	*<XL_HOME>*\xellerate\lib\
<PATCH>\xellerate\webapp\	*<XL_HOME>*\xellerate\webapp\
<PATCH>\documentation\	*<XL_HOME>*\documentation
<PATCH>\xellerate\config\	*<XL_HOME>*\xellerate\config\
<PATCH>\xellerate\ext\	*<XL_HOME>*\xellerate\ext\
<PATCH>\xellerate\GTC\	*<XL_HOME>*\xellerate\GTC\
<PATCH>\xellerate\connectorResources\	*<XL_HOME>*\xellerate\connectorResources\

4. Copy the following files from the *<PATCH>*\xellerate\setup directory to the *<XL_HOME>*\xellerate\setup directory:

- setup.xml
- patch_weblogic.cmd
- patch_weblogic.sh
- weblogic-setup.xml
- setup_wl_server.xml

5. Edit the patch_weblogic script specific to your operating system in the *<XL_HOME>*/xellerate/setup/ directory (edit patch_weblogic.cmd for Windows or edit patch_weblogic.sh for UNIX). Make the following changes:

- Replace @bea_home with the path to the WebLogic installation directory
- Replace @loc with the path to the Oracle Identity Manager server installation directory

6. Update your existing Release 9.0.2 Oracle Identity Manager server xlconfig.xml configuration file in the *<XL_HOME>*/xellerate/config/ directory with the new cache related setting for Release 9.0.3. Perform the following steps:

   a. Open the *<XL_HOME>*/xellerate/config/xlconfig.xml file and locate the <xl-configuration>< Cache> parameter.

   b. Add the following XML entry before the </Cache> parameter:

   ```
   <LinguisticSort>
   ```

```
                    <Enable>true</Enable>
                    <ExpireTime>-1</ExpireTime>
            </LinguisticSort>
```

Preparing the Administrative and User Console for Upgrade

Several Administrative and User Console files were modified in Release 9.0.3. If you customized your Release 9.0.2 Administrative and User Console, that is, you made changes to the default, stock Administrative and User Console that shipped with Release 9.0.2, you must add your customizations into the new Release 9.0.3 Administrative and User Console files.

Refer to Appendix C, "Upgrading Customized Administrative and User Consoles" if you customized your Release 9.0.2 Administrative and User Console.

If you did not customize your Release 9.0.2 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 9.0.3 by updating your Release 9.0.2 Design Console libraries, scripts, and configuration files using the following steps:

1. Backup the following files and directories:

    ■   *<XL_DC_HOME>*\xlclient\XLDesktopClient.ear

    ■   *<XL_DC_HOME>*\xlclient\CustomClient.zip

    ■   *<XL_DC_HOME>*\xlclient\xlFvcUtil.ear

    ■   *<XL_DC_HOME>*\xlclient\lib

    ■   *<XL_DC_HOME>*\xlclient\ext

    ■   *<XL_DC_HOME>*\documentation

    ■   *<XL_DC_HOME>*\xlclient\fvcutil.cmd

2. Copy the directories and files listed in the location of the **From** column in the following table to the location listed in the **To** column in the following table. Overwrite the existing files in the **To** location if necessary.

Table 3–2   Oracle Identity Manager Design Console Pre-Upgrade Files to Copy

Copy From....	To
<PATCH>\xlclient\XLDesktopClient.ear	*<XL_DC_HOME>*\xlclient\
<PATCH>\xlclient\CustomClient.zip	*<XL_DC_HOME>*\xlclient\
<PATCH>\xlclient\xlFvcUtil.ear	*<XL_DC_HOME>*\xlclient\
<PATCH>\xlclient\lib\	*<XL_DC_HOME>*\xlclient\lib\
<PATCH>\xlclient\ext\	*<XL_DC_HOME>*\xlclient\ext\
<PATCH>\xlclient\fvcutil.cmd	*<XL_DC_HOME>*\xlclient\
<PATCH>\documentation\	*<XL_DC_HOME>*\documentation\

Preparing the Remote Manager for Upgrade

Prepare the Oracle Identity Manager Remote Manager for upgrade to Release 9.0.3 by updating your Release 9.0.2 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 9.0.2 deployment to Oracle Identity Manager Release 9.0.3 involves assembling a new enterprise application archive (EAR) file from the latest libraries, then redeploying the EAR.

Use the steps in one of the following sections appropriate to your deployment to upgrade to Release 9.0.3 on WebLogic:

- Upgrading A Single WebLogic Application Server
- Upgrading A WebLogic Cluster

Upgrading A Single WebLogic Application Server

Perform the following steps to upgrade to Release 9.0.3 on a single WebLogic application server:

1. Make sure the WebLogic application server is running.

2. Log in to the WebLogic Admin Console.

3. Click **Deployment** and then click **Applications**.

4. Remove the Xellerate and Nexawebb application deployments by clicking the **Remove** button for each application.

5. Shutdown the WebLogic application server gracefully.

6. Delete all the files in the *<BEA_HOME>*\user_projects\domains*<Name_of_ domain_directory>*\XLApplications directory.

7. Upgrade to the WebLogic 8.1 with SP6 application server using the following steps:

   a. Use the WebLogic application server documentation for details on backing up your existing WebLogic deployment and then upgrading to WebLogic 8.1 with SP6.

   > **Note:** While upgrading to WebLogic 8.1 SP6 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/

   b. After completing the upgrade to WebLogic 8.1 with SP6, open the following files in a text editor and change the JAVA_HOME variable to point to *<BEA_ HOME>*\jdk1.4.2_11:

Change the JAVA_HOME Variable in These Files

<BEA_HOME>\weblogic81\common\bin\commEnv.*<cmd or sh>*

<BEA_HOME>\weblogic81\server\bin\ant

<Name_of_domain_directory>\setEnv.*<cmd or sh>*

<Name_of_domain_directory>\startWebLogic.*<cmd or sh>*

---

    c. Rename the jdk1.4.2_05 directory used for Release 9.0.2 to something like *OLD_jdk1.4.2_05* or *LEGACY_jdk1.4.2_05* to avoid confusion when executing and troubleshooting the upgrade scripts.

8. Start the WebLogic application server.

9. 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

10. Copy *<PATCH>*\xellerate\ext\ojdbc14.jar to the *<BEA_HOME>*\weblogic81\server\lib\ directory and overwrite the existing file if necessary.

11. Run one of the following patch_weblogic scripts on the application server:

Windows:

Run *<XL_HOME>*\xellerate\setup\patch_weblogic.cmd using the WebLogic administrator's password and the Oracle Identity Manager database user's password as command arguments, for example:

```
<XL_HOME>\xellerate\setup\patch_weblogic.cmd <WebLogic_admin_password>
<database_user_password>
```

UNIX:

Run *<XL_HOME>*/xellerate/setup/patch_weblogic.sh using the WebLogic administrator's password and the Oracle Identity Manager database user's password as command arguments, for example:

```
$ <XL_HOME>/xellerate/setup/patch_weblogic.sh -<WebLogic_admin_password>
-<database_user_password>
```

12. Select **Security**, then select **Realms**, then select **myrealm**, then select **Providers**, and then select **Authentication**.

13. Delete the **XellerateAuthenticator**.

14. Shutdown the WebLogic application server gracefully.

15. Copy *<XL_HOME>*\xellerate\lib\wlXLSecurityProviders.jar to the *<BEA_HOME>*\weblogic81\server\lib\mbeantypes\ directory.

16. Start the Weblogic application server.

17. Select **Security**, then select **Realms**, then select **myrealm**, then select **Providers**, then select **Authentication**, then select **Configure a new OIMAuthenticator...** and create a `OIMAuthenticator` with the **SUFFICIENT** Control Flag.

18. Shutdown the WebLogic application server gracefully.

19. Start the WebLogic application server.

Upgrading A WebLogic Cluster

Perform the following steps to upgrade to Release 9.0.3 on a WebLogic cluster:

1. Log in to the WebLogic Admin Console.

2. Shutdown all Managed Servers gracefully.

3. Click **Deployment** and then click **Applications**.

4. Remove the Xellerate and Nexawebb application deployments by clicking the **Remove** button for each application.

5. Delete all the files in the *<BEA_HOME>*\user_projects\domains*<Name_of_domain_directory>*\XLApplications directory on each node in the cluster.

6. Delete the following folders on each node in the cluster:

- *<BEA_HOME>*\weblogic81\common\nodemanager*<Name_of_server_directory>*\stage\xellerate

- *<BEA_HOME>*\weblogic81\common\nodemanager*<Name_of_server_directory>*\stage\Nexaweb

7. Upgrade to the WebLogic 8.1 with SP6 application server using the following steps:

a. Use the WebLogic application server documentation for details on backing up your existing WebLogic deployment and then upgrading to WebLogic 8.1 with SP6.

Note: While upgrading to WebLogic 8.1 SP6 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/

---

b. After completing the upgrade to WebLogic 8.1 with SP6, open the following files in a text editor and change the JAVA_HOME variable to point to *<BEA_HOME>*\jdk1.4.2_11:

Change the JAVA_HOME Variable in These Files

<BEA_HOME>\weblogic81\common\bin\commEnv.*<cmd or sh>*

<BEA_HOME>\weblogic81\server\bin\ant (on the Admin server only)

<Name_of_domain_directory>\setEnv.*<cmd or sh>*

<Name_of_domain_directory>\startWebLogic.*<cmd or sh>*

---

c. Rename the jdk1.4.2_05 directory used for Release 9.0.2 to something like *OLD_jdk1.4.2_05* or *LEGACY_jdk1.4.2_05* to avoid confusion when executing and troubleshooting the upgrade scripts.

8. Start the Admin Server.

9. In the WebLogic Admin Console, ensure the following fields and values are set on the **Remote Start** tab for all Managed Servers:

   – **Java Home**: *<BEA_HOME>*\jdk1.4.2_11

   – **Bea Home**: *<BEA_HOME>*

10. Make sure all Managed Servers are running.

11. Ensure the **Listen Address** field on the **Configuration** tab for all Managed Servers contains the Host Address.

12. If you are using SQL Server as your database, verify the following files have been added to the **Class Path** field in the **Remote Start** tab of all Managed Servers:

   ■ mssqlserver.jar

   ■ msbase.jar

   ■ msutil.jar

13. 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.

14. Run one of the following patch_weblogic scripts on the Admin Server:

   Windows:

   Run *<XL_HOME>*\xellerate\setup\patch_weblogic.cmd using the WebLogic administrator's password and the Oracle Identity Manager database user's password as command arguments, for example:

   ```
   <XL_HOME>\xellerate\setup\patch_weblogic.cmd <WebLogic_admin_password>
   <database_user_password>
   ```

   UNIX:

   Run *<XL_HOME>*/xellerate/setup/patch_weblogic.sh using the WebLogic administrator's password and the Oracle Identity Manager database user's password as command arguments, for example:

   ```
   $ <XL_HOME>/xellerate/setup/patch_weblogic.sh -<WebLogic_admin_password>
   -<database_user_password>
   ```

15. Stop the cluster and gracefully shutdown all Managed Servers in the cluster by right-clicking on the name of the cluster, selecting **Start/Stop this cluster**, and then selecting the **Graceful shutdown of all Managed Servers...** option in the right pane.

16. Select **Security**, then select **Realms**, then select **myrealm**, then select **Providers**, and then select **Authentication**.

17. Delete the **XellerateAuthenticator**.

18. Shutdown the WebLogic Admin Server gracefully.

19. Copy *<XL_HOME>*\xellerate\lib\wlXLSecurityProviders.jar to the *<BEA_HOME>*\weblogic81\server\lib\mbeantypes\ directory on the Admin Server.

20. Start the WebLogic Admin Server.

21. Select **Security**, then select **Realms**, then select **myrealm**, then select **Providers**, then select **Authentication**, then select **Configure a new OIMAuthenticator...** and create a OIMAuthenticator with the **SUFFICIENT** Control Flag.

22. Shutdown the WebLogic Admin Server gracefully.

23. Start the WebLogic Admin Server.

24. Copy the *<XL_HOME>* directory from the Admin Server to all Managed Servers while maintaining the same directory structure.

25. Copy *<XL_HOME>*\xellerate\lib\wlXLSecurityProviders.jar to the *<BEA_ HOME>*\weblogic81\server\lib\mbeantypes\ directory on all Managed Servers in the cluster, overwriting the existing files.

26. Copy *<XL_HOME>*\xellerate\lib\nexaweb-common.jar to the *<BEA_ HOME>*\weblogic81\server\lib\ directory on all Managed Servers in the cluster, overwriting the existing files.

27. Start the cluster.

Migrating Release 9.0.2 Custom Code

You can recycle custom code used in your Release 9.0.2 environment into your newly upgraded Release 9.0.3 environment.

> **Note:** Before you migrate custom code from the Release 9.0.2 environment, you must first recompile the custom code using the Oracle Identity Manager Release 9.0.3 libraries.

The following is a list of the customized items you can migrate from your Release 9.0.2 environment and reuse in Release 9.0.3 after recompiling using the Release 9.0.3 libraries:

> **Note:** For clustered environments, after recompiling the following customized items using the Release 9.0.3 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 9.0.3 libraries.

- Custom java libraries bound to functional Oracle Identity Manager Release 9.0.2 adapters recompiled using Release 9.0.3 libraries. You do not need to recompile the adapters.

- Custom scheduled tasks recompiled using Release 9.0.3 libraries.

- Custom event handlers recompiled using Release 9.0.3 libraries.

- Custom clients that were built using Oracle Identity Manager Release 9.0.2 APIs must be updated to make them compatible with the Oracle Identity Manager Release 9.0.3 APIs.

   For example, certain APIs might have been deprecated and replaced by new APIs. Refer to the *Oracle Identity Manager Release 9.0.3 Release Notes* for information on API changes between Oracle Identity Manager Release 9.0.2 and Release 9.0.3.

Upgrading the Diagnostic Dashboard

You must remove the existing Release 9.0.2 Diagnostic Dashboard XIMDD application before upgrading to the Release 9.0.3 Diagnostic Dashboard on WebLogic. Use the following steps:

1. Remove the existing XIMDD application using the Admin Console.

2. Install a new instance of the XIMDD application using the Release 9.0.3 XIMDD.war file in the *<PATCH>*\DiagnosticDashboard directory.

   Refer to the "Installing the Diagnostic Dashboard" section in the "Working with the Diagnostic Dashboard" chapter in the *Oracle Identity Manager Administrative and User Console Guide* for complete steps on how to install the Diagnostic Dashboard on your application server.

Post-Upgrade Configuration

After completing the upgrade to Release 9.0.3, refer to the *Post-Installation Configuration for Oracle Identity Manager and WebLogic* chapter in the *Oracle Identity Manager Installation Guide for WebLogic* to verify your upgraded Release 9.0.3 environment is configured correctly.

4

Upgrading to Release 9.0.3 from Release 9.0.2 on WebSphere Application Servers

This chapter explains how to upgrade to Release 9.0.3 from Release 9.0.2 on WebSphere application servers—do not attempt to upgrade to Release 9.0.3 from any other previous Oracle Identity Manager release.

> **Note:** If you are a new Oracle Identity Manager customer and Release 9.0.3 is your initial deployment of the product, you can skip this chapter and simply run the Release 9.0.3 installer program to deploy Release 9.0.3.

Extract the contents of the Release 9.0.3 upgrade package to a temporary directory on your existing Release 9.0.2 system.

> **Note:** This document refers to this temporary directory as *<PATCH>*.

The following is a list of the steps in this section that explain how to upgrade from Release 9.0.2 to Release 9.0.3 on WebSphere:

1. Upgrading to WebSphere 5.1.1.12

2. Upgrading the Database for Oracle Identity Manager

   ■ Upgrading an Existing Database Instance In-Place

   ■ Creating a New Database Instance for the Upgrade

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 9.0.2 Custom Code

6. Upgrading the Diagnostic Dashboard

Upgrading to WebSphere 5.1.1.12

Release 9.0.3 is certified on the WebSphere 5.1.1.12 application server. You must upgrade to WebSphere 5.1.1.12 before upgrading to Release 9.0.3. Be sure to also upgrade the WebSphere client to 5.1.1.12 for the Release 9.0.3 Design Console.

> **Note:** For WebSphere clusters, you must also upgrade the Network Deployment Manager and all Node Managers to 5.1.1.12.

Refer to the WebSphere application server documentation for details on upgrading to WebSphere 5.1.1.12.

> **Note:** While upgrading to WebSphere 5.1.1.12 application server, you should review IBM's information about the WebSphere application server required changes for United States daylight saving time changes. Go to the IBM Support and downloads Web site at:
>
> http://www.ibm.com/support/us/

Upgrading the Database for Oracle Identity Manager

Choose one of the following approaches to upgrade the database used by your Oracle Identity Manager Release 9.0.2 deployment:

- Perform an in-place upgrade of the existing database configured for Release 9.0.2—refer to Upgrading an Existing Database Instance In-Place.

- Create a new instance of the database for Release 9.0.3, then import the data used by your Release 9.0.2 deployment into that new database and perform the upgrade—refer to Creating a New Database Instance for the Upgrade.

Before you upgrade your database, perform the following steps:

1. Extract the contents of the Oracle Identity Manager Release 9.0.3 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.

Upgrading an Existing Database Instance In-Place

This approach upgrades your existing Release 9.0.2 database instance by upgrading the database schema while your database remains in-place.

1. 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 9.0.2 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.

2. Verify your database is properly configured by referring to the database vendor's documentation and the *Oracle Identity Manager Installation and Upgrade Guide* specific to your application server.

3. Upgrade your database schema from Oracle Identity Manager Release 9.0.2 to Release 9.0.3 by using the one of the following scripts appropriate for your database and operating system. Be sure to run the script on the machine where the database resides.

> **Note:** The oim_db_upg_902_to_903 script also upgrades the required stored procedures for Oracle.

Oracle on UNIX and Linux:

a. Run the following script on the system where the database for Oracle Identity Manager Release 9.0.2 is installed to upgrade the database schema:

```
<PATCH>/db/oracle/Scripts/oim_db_upg_902_to_903.sh
```

b. Enter the appropriate information for the Oracle database when prompted by the oim_db_upg_902_to_903.sh script.

Oracle on Windows:

Run the following batch script on the system where the Release 9.0.2 database is installed to upgrade the database schema:

```
<PATCH>\db\oracle\Scripts\oim_db_upg_902_to_903.bat
```

The following is the command line usage for the Oracle oim_db_upg_902_to_903.bat script:

```
oim_db_upg_902_to_903.bat <ORACLE_SID> <ORACLE_HOME> <ORACLE_XELL_USER>
<ORACLE_XELL_USER_PWD> <PATCH>
```

SQL Server:

Run the *<PATCH>*\db\SQLServer\Scripts\upg_902_to_903.bat batch file. Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

4. Perform the following steps to recompile the stored procedures for your database:

> **Note:** If you are using an Oracle database, you can skip this step as running the oim_db_upg_902_to_903 script already created the required stored procedures for Oracle.

SQL Server:

a. Launch a plain-text editor, then open:

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

b. 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

c. Run the following script:

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

Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

5. Perform the following steps appropriate for your database to upgrade the Oracle Identity Manager Audit and Compliance module:

Oracle:

a. Log in to SQL *Plus with the credentials of the Oracle Identity Manager Release 9.0.2 database schema owner.

b. Run the following script:

```
<PATCH>/db/oracle/Scripts/Oracle_Enable_XACM.sql
```

SQL Server:

Run the following script:

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

Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

6. The user profile auditing feature and the reports feature require that certain metadata be loaded into the database. As appropriate for the operating system on the machine hosting your Oracle Identity Manager server, load Oracle Identity Manager metadata into your database by executing one of the following commands:

Windows:

Run the following .bat file:

```
<PATCH>\db\Utilities\LoadXML.bat
```

UNIX and Linux:

Run the following script:

```
<PATCH>/db/Utilities/LoadXML.sh
```

Refer to Appendix B, "Loading Metadata into the Database" for more information on executing this script.

Creating a New Database Instance for the Upgrade

In this approach, you create a new database instance for Release 9.0.3, then import the data used by your Release 9.0.2 deployment into that new database and perform the upgrade. This method ensures that your current working database remains available if a rollback is required. Use the following steps for creating a new, upgraded database instance:

1. 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 9.0.2 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.

2. Create a new database by referring to the database vendor's documentation and the *Oracle Identity Manager Installation and Upgrade Guide* specific to your application server.

> **Note:** If you create a new database, be sure to specify the user name and password used by your original database instance as the credentials for your new database.

3. Using the import utility provided by your particular database, import the data you exported from your Release 9.0.2 database into your newly created Release 9.0.3 database. This creates an exact copy of your original database instance.

4. Upgrade your database schema from Oracle Identity Manager Release 9.0.2 to Release 9.0.3 by using the one of the following scripts appropriate for your database and operating system. Be sure to run the script on the machine where the database resides.

Oracle on UNIX and Linux:

Run the following script on the new Release 9.0.3 database system and enter the appropriate information when prompted to upgrade the database schema:

```
<PATCH>/db/oracle/Scripts/oim_db_upg_902_to_903.sh
```

> **Note:** The oim_db_upg_902_to_903 script also upgrades the required stored procedures for Oracle.

Oracle on Windows:

Run the following batch script on the new Release 9.0.3 database system to upgrade the database schema:

```
<PATCH>\db\oracle\Scripts\oim_db_upg_902_to_903.bat
```

The following is the command line usage for the Oracle oim_db_upg_902_to_903.bat script:

```
oim_db_upg_902_to_903.bat <ORACLE_SID> <ORACLE_HOME> <ORACLE_XELL_USER>
<ORACLE_XELL_USER_PWD> <PATCH>
```

SQL Server:

Run the following script:

```
<PATCH>\db\SQLServer\Scripts\upg_902_to_903.bat
```

Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

5. Perform the following steps to recompile the stored procedures for your database:

> **Note:** If you are using an Oracle database, you can skip this step as running the oim_db_upg_902_to_903 script already created the required stored procedures for Oracle.

SQL Server:

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

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

b. 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.

c. Run the following script:

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

Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

6. Perform the following steps appropriate for your database to upgrade the Oracle Identity Manager Audit and Compliance module:

Oracle:

a. Log in to SQL *Plus with the credentials of the Oracle Identity Manager Release 9.0.2 database schema owner.

b. Run the following script:

```
<PATCH>/db/oracle/Scripts/Oracle_Enable_XACM.sql
```

SQL Server:

Run the following script:

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

Refer to Appendix A, "Executing the SQL Server Upgrade Scripts" for more information on executing this script.

7. The user profile auditing feature and the reports feature require that certain metadata be loaded into the database. As appropriate for the operating system on the machine hosting your Oracle Identity Manager server, load Oracle Identity Manager metadata into your database by executing one of the following commands:

Windows:

Run the following script:

```
<PATCH>\db\Utilities\LoadXML.bat
```

UNIX and Linux:

Run the following script:

```
<PATCH>/db/Utilities/LoadXML.sh
```

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 9.0.3, 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 9.0.3 by updating the Release 9.0.2 libraries, scripts, and configuration files using the information in this section.

> **Note:** If you are upgrading to Release 9.0.3 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 9.0.3 upgrade package to a temporary directory on the machine where the Oracle Identity Manager Release 9.0.2 server is installed—this document refers to this temporary directory as *<PATCH>*.

2. Backup the following directories.

   - *<XL_HOME>*\xellerate\config
   - *<XL_HOME>*\xellerate\DDTemplates
   - *<XL_HOME>*\xellerate\lib
   - *<XL_HOME>*\xellerate\setup
   - *<XL_HOME>*\xellerate\webapp
   - *<XL_HOME>*\xellerate\ext
   - *<XL_HOME>*\xellerate\connectorResources
   - *<XL_HOME>*\documentation

3. Copy the directories and files listed in the location of the **From** column in the following table to the location listed in the **To** column in the following table. Overwrite the existing files in the **To** location if necessary.

Table 4–1   Oracle Identity Manager Server Pre-Upgrade Files to Copy

Copy From....	To
<PATCH>\xellerate\DDTemplates\	*<XL_HOME>*\xellerate\DDTemplates\
<PATCH>\xellerate\lib\	*<XL_HOME>*\xellerate\lib\
<PATCH>\xellerate\webapp\	*<XL_HOME>*\xellerate\webapp\
<PATCH>\documentation\	*<XL_HOME>*\documentation
<PATCH>\xellerate\config\	*<XL_HOME>*\xellerate\config\
<PATCH>\xellerate\ext\	*<XL_HOME>*\xellerate\ext\
<PATCH>\xellerate\GTC\	*<XL_HOME>*\xellerate\GTC\
<PATCH>\xellerate\connectorResources\	*<XL_HOME>*\xellerate\connectorResources\

4. Copy the following files from the *<PATCH>*\xellerate\setup directory to the *<XL_HOME>*\xellerate\setup directory:

- setup.xml

- patch_websphere.cmd

- patch_websphere.sh

- websphere-setup.xml

5. Edit the patch script specific to your operating system in the *<XL_HOME>*/xellerate/setup/ directory as listed in the following table:

Table 4–2   WebSphere Upgrade Patch Scripts and Parameters to Edit

Operating System	Script to Edit	Parameter to Edit
Windows	patch_websphere.cmd	■ Replace @java_home with the path to the Java installation directory. ■ Replace @wasHome with the path to the WebSphere installation directory. ■ Replace @loc with the path to the Oracle Identity Manager server installation directory.
UNIX and Linux	patch_websphere.sh	■ Replace @java_home with the path to directory containing the JDK. ■ Replace @loc with the path to the Oracle Identity Manager server installation directory.

6. Update your existing Release 9.0.2 Oracle Identity Manager server xlconfig.xml configuration file in the *<XL_HOME>*/xellerate/config/ directory with the new cache related setting for Release 9.0.3. Perform the following steps:

   a. Open the *<XL_HOME>*/xellerate/config/xlconfig.xml file and locate the <xl-configuration>< Cache> parameter.

   b. Add the following XML entry before the </Cache> parameter:

   ```
   <LinguisticSort>
           <Enable>true</Enable>
           <ExpireTime>-1</ExpireTime>
   </LinguisticSort>
   ```

Preparing the Administrative and User Console for Upgrade

Several Administrative and User Console files were modified in Release 9.0.3. If you customized your Release 9.0.2 Administrative and User Console, that is, you made changes to the default, stock Administrative and User Console that shipped with Release 9.0.2, you must add your customizations into the new Release 9.0.3 Administrative and User Console files.

Refer to Appendix C, "Upgrading Customized Administrative and User Consoles" if you customized your Release 9.0.2 Administrative and User Console.

If you did not customize your Release 9.0.2 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 9.0.3 by updating your Release 9.0.2 Design Console libraries, scripts, and configuration files using the following steps:

1. Backup the following files and directories:

    -   *<XL_DC_HOME>*\xlclient\XLDesktopClient.ear

    -   *<XL_DC_HOME>*\xlclient\CustomClient.zip

    -   *<XL_DC_HOME>*\xlclient\xlFvcUtil.ear

    -   *<XL_DC_HOME>*\xlclient\lib

    -   *<XL_DC_HOME>*\xlclient\ext

    -   *<XL_DC_HOME>*\xlclient\fvcutil_websphere.cmd

    -   *<XL_DC_HOME>*\documentation

2. Copy the directories and files listed in the location of the **From** column in the following table to the location listed in the **To** column in the following table. Overwrite the existing files in the **To** location if necessary.

Table 4–3   Oracle Identity Manager Design Console Pre-Upgrade Files to Copy

Copy From....	To
<PATCH>\xlclient\XLDesktopClient.ear	*<XL_DC_HOME>*\xlclient\
<PATCH>\xlclient\CustomClient.zip	*<XL_DC_HOME>*\xlclient\
<PATCH>\xlclient\xlFvcUtil.ear	*<XL_DC_HOME>*\xlclient\
<PATCH>\xlclient\lib\	*<XL_DC_HOME>*\xlclient\lib\
<PATCH>\xlclient\ext\	*<XL_DC_HOME>*\xlclient\ext\
<PATCH>\xlclient\fvcutil_websphere.cmd	*<XL_DC_HOME>*\xlclient\
<PATCH>\documentation\	*<XL_DC_HOME>*\documentation\

Preparing the Remote Manager for Upgrade

Prepare the Oracle Identity Manager Remote Manager for upgrade to Release 9.0.3 by updating your Release 9.0.2 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 9.0.2 deployment to Oracle Identity Manager Release 9.0.3 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 9.0.3 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 the following files from the *<PATCH>*\xellerate\ext\ directory to the *<WEBSPHERE_HOME>*\AppServer\lib\ext\ directory and overwrite the existing files if necessary.

   For a WebSphere cluster, copy the following files from the *<PATCH>*\xellerate\ext\ directory to the *<WEBSPHERE_ HOME>*\AppServer\lib\ext\ directory on all cluster participants, overwriting the existing files if necessary:

   - ojdbc14.jar

   - Uix2.jar

   - Uix2-dbg.jar

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.

   > **Note:** After successfully executing the patch_websphere script, you may receive some unexpected output in the console or terminal where you execute the patch_websphere script. You can safely ignore this output.

   Windows:

   - Run *<XL_HOME>*\xellerate\setup\patch_websphere.cmd using the WebSphere administrator's password and the Oracle Identity Manager database user's password as command arguments, for example:

     ```
     <XL_HOME>\xellerate\setup\patch_websphere.cmd <WebSphere_admin_password>
     <database_user_password>
     ```

   UNIX and Linux:

   - Run *<XL_HOME>*/xellerate/setup/patch_websphere.sh using the WebSphere administrator's password and the Oracle Identity Manager database user's password as command arguments, for example:

     ```
     $ <XL_HOME>/xellerate/setup/patch_websphere.sh -<WebSphere_admin_password>
     -<database_user_password>
     ```

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 9.0.3.

   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 9.0.3 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 *<WEBSPHERE_ HOME>* is the home directory of WebSphere:

```
setupWebSphereCustomRegistry.cmd <WEBSPHERE_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 9.0.3.

Updating the Design Console xlDataObjectBeans.jar

After performing the upgrade to Release 9.0.3, 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 9.0.2 Custom Code

You can recycle custom code used in your Release 9.0.2 environment into your newly upgraded Release 9.0.3 environment.

Note: Before you migrate custom code from the Release 9.0.2 environment, you must first recompile the custom code using the Oracle Identity Manager Release 9.0.3 libraries.

The following is a list of the customized items you can migrate from your Release 9.0.2 environment and reuse in Release 9.0.3 after recompiling using the Release 9.0.3 libraries:

Note: For clustered environments, after recompiling the following customized items using the Release 9.0.3 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 9.0.3 libraries.

- Custom java libraries bound to functional Oracle Identity Manager Release 9.0.2 adapters recompiled using Release 9.0.3 libraries. You do not need to recompile the adapters.

- Custom scheduled tasks recompiled using Release 9.0.3 libraries.

- Custom event handlers recompiled using Release 9.0.3 libraries.

- Custom clients that were built using Oracle Identity Manager Release 9.0.2 APIs must be updated to make them compatible with the Oracle Identity Manager Release 9.0.3 APIs.

  For example, certain APIs might have been deprecated and replaced by new APIs. Refer to the *Oracle Identity Manager Release 9.0.3 Release Notes* for information on API changes between Oracle Identity Manager Release 9.0.2 and Release 9.0.3.

Upgrading the Diagnostic Dashboard

You must remove the existing Release 9.0.2 Diagnostic Dashboard XIMDD application before upgrading to the Release 9.0.3 Diagnostic Dashboard on WebSphere. Use the following steps:

1. Remove the existing XIMDD application using the Admin Console.

2. Install a new instance of the XIMDD application using the Release 9.0.3 XIMDD.war file in the *<PATCH>*\DiagnosticDashboard directory.

   Refer to the "Installing the Diagnostic Dashboard" section in the "Working with the Diagnostic Dashboard" chapter in the *Oracle Identity Manager Administrative and User Console Guide* for complete steps on how to install the Diagnostic Dashboard on your application server.

A

Executing the SQL Server Upgrade Scripts

The Release 9.0.3 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>*\db\SQLServer\Scripts\upg_902_to_903.bat with the following command-line arguments:

    ```
    <PATCH>\db\SQLServer\Scripts\upg_902_to_903.bat <server-name[\instance-name]>
    <db-user> <password> db-name> <PATCH>\db\SQLServer\Scripts
    ```

- To compile the new stored procedures, run *<PATCH>*\db\SQLServer\StoredProcedures\compile_all_XL_SP.bat with the following command-line arguments:

    ```
    <PATCH>\db\SQLServer\StoredProcedures\compile_all_XL_SP.bat
    <server-name[\instance-name]> <db-user> <password> <db-name>
    <PATCH>\db\SQLServer\StoredProcedures
    ```

- To upgrade the Oracle Identity Manager Audit and Compliance module, run *<PATCH>*\db\SQLServer\Scripts\SQLServer_Enable_XACM.bat with the following command-line arguments:

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

B

Loading Metadata into the Database

You must load certain metadata into your database by completing the following steps:

1. As appropriate for the operating system of the machine hosting your Oracle Identity Manager server, edit either LoadXML.bat or LoadXML.sh located in *<PATCH>*/db/Utilities/, and update the JAVA_HOME variable.

2. As appropriate for your database and operating system of the machine hosting your Oracle Identity Manager server, complete one of the following sub-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=<XL_HOME>\xellerate\ext
    ```

    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=<XL_HOME>/xellerate/ext
    export ORACLE_DRIVER_DIR
    ```

3. Open a command prompt or console and run the *<PATCH>*/db/Utilities/LoadXML.bat or LoadXML.sh script with the following

command line parameters in the specified 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

C

Upgrading Customized Administrative and User Consoles

Several Administrative and User Console files were modified in Release 9.0.3. If you customized your Release 9.0.2 Administrative and User Console, that is, you made changes to the default, stock Administrative and User Console that shipped with Release 9.0.2, you must add your customizations into the new Release 9.0.3 Administrative and User Console files.

Table C–1 lists the Administrative and User Console files that were modified in Release 9.0.3. For each file listed in the table, compare your existing, customized Release 9.0.2 version of the file to the new Release 9.0.3 file to identify your customizations. After identifying your customizations in your existing Release 9.0.2 files, add them into the new Release 9.0.3 files.

The Release 9.0.3 Administrative and User Console files are located in the xlWebApp.war file in the Release 9.0.3 upgrade package.

Table C–1   Administrative and User Console Files to Compare

Path in xlWebApp.war	Files
/cabo/jsps/	a.jsp
	calendarDialog.jsp
	frameRedirect.jsp
	fred.jsp
/dm/	dmGenericErrorDialog.jsp
	dmImportAddGroups.jsp
	dmImportConfirmation.jsp
	dmImportViewer.jsp
/layouts/	GenConnectorPopUpLayout.jsp
	tjspClassicLayout.jsp
/pages/	ConnectorConfiguration.jsp
	ConnectorDetails.jsp
	ConnectorFieldMapping.jsp
	CreateConnectorExit.jsp
	GenConTransformation.jsp
	GenConValidation.jsp

Table C–1   (Cont.) Administrative and User Console Files to Compare

Path in xlWebApp.war	Files
	GenConValidationDetail.jsp
	GenConnectorLookup.jsp
/rendererPages/	displayTaskDetail.jsp
	timeout.jsp
	wkflwViewer.jsp
/tiles/	AccessPolicyProcessFormTilesInclude.jsp
	ApprovalsPageTiles.jsp
	AssignResourceAdministratorsTiles.jsp
	AssignResourceAuthorizersTiles.jsp
	AttestationEditDetailsTilesInclude.jsp
	AttestationWizardFirstTiles.jsp
	AttestationWizardScheduleTilesInclude.jsp
	ConnectorConfigurationTiles.jsp
	ConnectorImagePopUpTiles.jsp
	ConnectorMappingTiles.jsp
	CreateConnectorExitTiles.jsp
	CreateGenConTiles.jsp
	GenConValidationDetailTiles.jsp
	GenConValidationTiles.jsp
	GenConnectorLookupFormTiles.jsp
	GenConnectorTransformationTiles.jsp
	MyProxyViewProxyAssignTilesInclude.jsp
	OpenTasksTiles.jsp
	ReportInputTilesInclude.jsp
	ResourceAdministratorsTiles.jsp
	TaskDetailsTiles.jsp
	UserGroupAdministratorsAssignTiles.jsp
	UserProxyViewProxyAssignTilesInclude.jsp
	manageConnectorTiles.jsp
	requestEntityDetailTilesInclude.jsp
	requestPendingTaskConfirmTiles.jsp
	requestTrackTilesInclude.jsp
	requestdetailPendingTaskConfirmTiles.jsp
	tjspConfirmAssignOrganizationAdministratorsStep1Tiles.jsp
	tjspEditGroupTilesInclude.jsp
	tjspEditOrganizationConfirmationTiles.jsp
	tjspEditOrganizationConfirmationTilesInclude.jsp

Table C–1   (Cont.) Administrative and User Console Files to Compare

Path in xlWebApp.war	Files
	tjspLoginHelpTiles.jsp
	tjspProvideChallengeAnswersConfirmTiles.jsp
	tjspProvideDataChildFormTilesInclude.jsp
	tjspRequestScheduleTilesInclude.jsp
	tjspShowFormTilesInclude.jsp
	tjspTrackRequestTilesInclude.jsp
	tjspUserMemberOfAssignTiles.jsp
	tjspViewResourceProfileOrganizationDetailsTiles.jsp
/tiles/util/	GenerateConnectorConfigurationTiles.jsp
	ReportFormFieldsDisplay.jsp
	tjspForm.jsp
	tjspGenerateCreateOrganizationForm.jsp
	tjspGenerateCreateUserForm.jsp
	tjspGenerateEditForm.jsp
SystemVerificationWeb/index.jsp	