Oracle® Student Learning

Installation and Deployment Guide

Release 3.1.3

E20664-04

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Preface

This preface includes the following topics:

- Audience
- Documentation Accessibility
- Related Documents
- Conventions

Audience

This document is intended for the deployment team who will deploy and implement the Oracle Student Learning (OSL) components.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at `http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc`.

Access to Oracle Support

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

Related Documents

For more information, see the following documents in the Oracle Student Learning documentation set:

- *Oracle Student Learning (OSL) Implementation Guide*
- *Oracle Student Learning (OSL) Learning Tool Admin User's Guide*
- *Oracle Student Learning (OSL) Learning Tool Customization Guide*
- *Oracle Student Learning (OSL) Learning Tool User's Guide*
- *Oracle Student Learning (OSL) Programmer's Guide*
- *Oracle Student Learning (OSL) Release Notes*

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.

Part I

Installing Oracle Student Learning

This section provides an overview of the Oracle Student Learning (OSL) installation. The chapters in this section provide information about installation requirements, installation tasks, and using the installation log files. This section includes the following chapters:

- Chapter 1, "Installation and Deployment Requirements"
- Chapter 2, "Installation Tasks"
- Chapter 3, "Using Installation Log and Supporting Files"
- Chapter 4, "Uninstallation Tasks"

1 Installation and Deployment Requirements

The Oracle Student Learning (OSL) installer is based on the Oracle Universal Installer (OUI). The OUI is a Java-based application with a graphical user interface. For this release, the certified operating system for OUI is Oracle Enterprise Linux 5.3 x86-64 bit.

This chapter lists software required for running the installer and for OSL to function successfully.

1.1 Prerequisite Software for Oracle Student Learning Installer

During the installation, you can choose to upgrade or initialize the Learning Tool Database required by OSL. Before the upgrade or initialization, ensure that the following prerequisites are met:

- The Oracle Database 11*g* is installed on either of the following computers:
  - The computer where the installer is run.
  - A remote computer that is accessible from the computer where the installer is run.
- SQL*Plus is available on the computer where you are running the OSL installer.
  - If Oracle Database (Oracle DB) is installed on the computer, use the SQL*Plus distributed along with Oracle DB.
  - If Oracle DB is not installed on the computer, use the SQL*Plus Instant Client.

    You can download SQL*Plus Instant Client from the Oracle Technology Network (OTN).

1.2 System Requirements for Oracle Student Learning

For the list of requirements for OSL, refer to the OSL Certification Matrix.

2

Installation Tasks

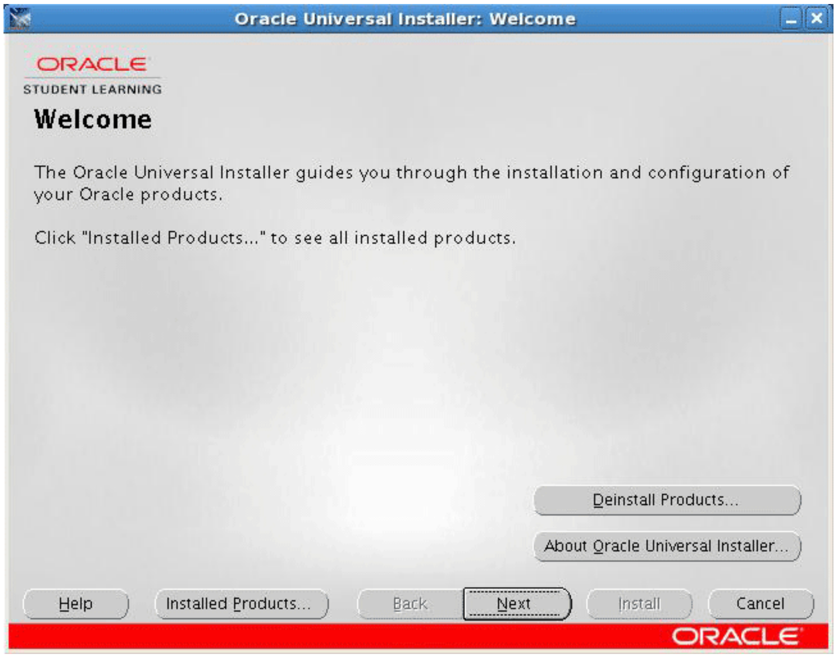
This chapter describes the required and optional steps for installing Oracle Student Learning (OSL).

> **Note:** Before you begin installation, it is recommended that you close all other applications.

To install OSL, perform the following steps:

1. Open the `Disk1/install` directory.
2. Run the runInstaller executable file.
3. On the **Oracle Universal Installer: Welcome** screen, click **Next**.

Figure 2–1 Welcome Screen



Oracle Universal Installer: Welcome

ORACLE
STUDENT LEARNING

Welcome

The Oracle Universal Installer guides you through the installation and configuration of your Oracle products.

Click "Installed Products..." to see all installed products.

4. Select a product to install:
   - **Oracle Student Learning (Complete)**

     Installs all components and documentation.

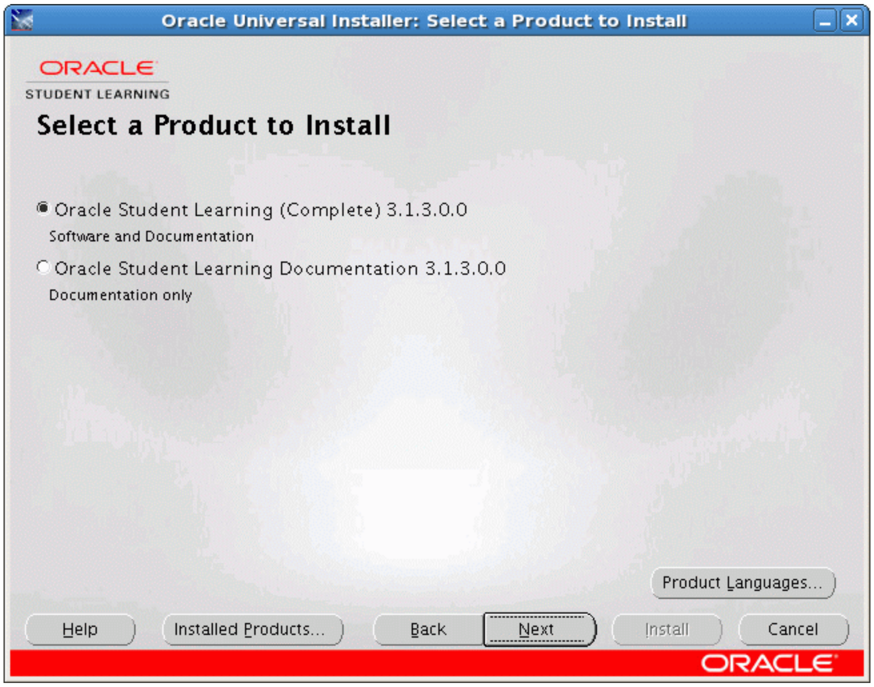
- **Oracle Student Learning Documentation**

  Installs only documentation.

  > **Note:** For all input fields, a basic validation is performed to ensure that you have entered a valid value. If you have entered an invalid value, an error message displays.

Depending on your selection, some subsequent steps are not applicable.

Figure 2–2 Selecting a Product to Install



Oracle Universal Installer: Select a Product to Install

ORACLE STUDENT LEARNING

Select a Product to Install

● Oracle Student Learning (Complete) 3.1.3.0.0
Software and Documentation

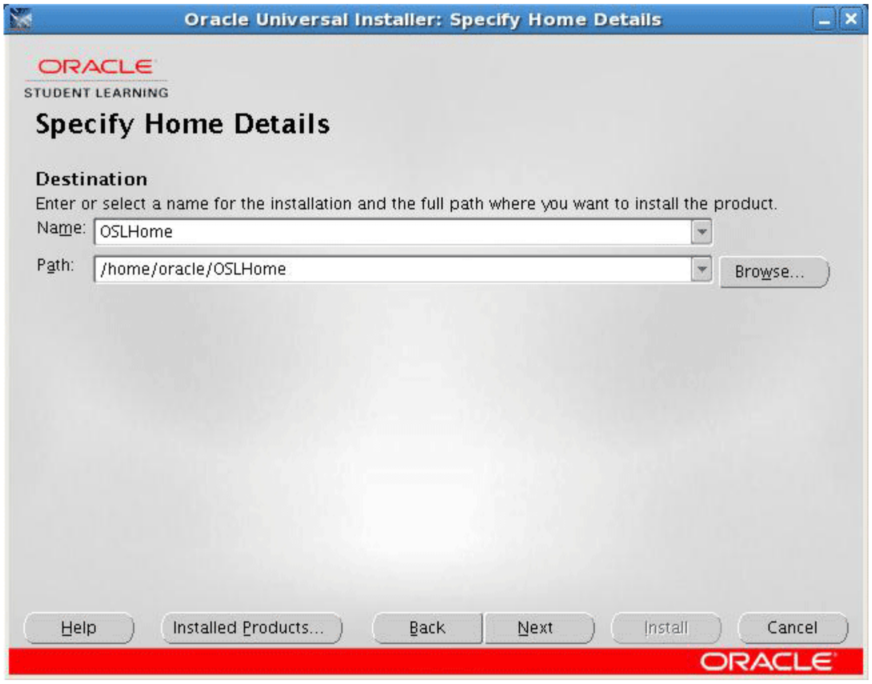
○ Oracle Student Learning Documentation 3.1.3.0.0
Documentation only

5. Click **Next**.
6. In the **Specify Home Details** screen, specify the following information:
   - **Name**

     A unique name to identify Oracle home.
   - **Path**

     The destination directory for the installation files.

Figure 2–3 Specify installation directory details


Oracle Universal Installer: Specify Home Details

ORACLE STUDENT LEARNING

Specify Home Details

Destination

Enter or select a name for the installation and the full path where you want to install the product.

Name: OSLHome

Path: /home/oracle/OSLHome

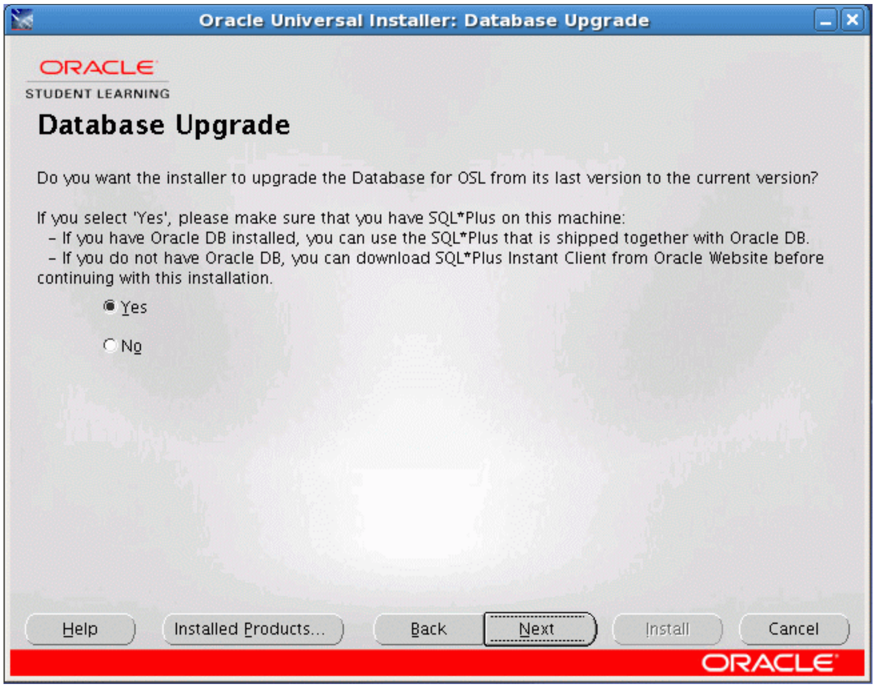
Note: If you are upgrading OSL, ensure that you choose a different directory than the previous version, to avoid overwriting files.

---

7. Click **Next**.
8. On the **Database Upgrade** screen, select **Yes** to upgrade the Learning Tool Database.
   - If you select **Yes**, ensure that SQL*Plus is available on this computer.
   - If you select **No**, you can manually upgrade the database after OSL installation.

     To upgrade the database, use the OSL database account to run the DB_Upgrade.sql script available under **LearningTool/Scripts**.

Figure 2–4 Choose whether to upgrade the database



Oracle Universal Installer: Database Upgrade

ORACLE STUDENT LEARNING

Database Upgrade

Do you want the installer to upgrade the Database for OSL from its last version to the current version?

If you select 'Yes', please make sure that you have SQL*Plus on this machine:
 - If you have Oracle DB installed, you can use the SQL*Plus that is shipped together with Oracle DB.
 - If you do not have Oracle DB, you can download SQL*Plus Instant Client from Oracle Website before continuing with this installation.

● Yes

○ No

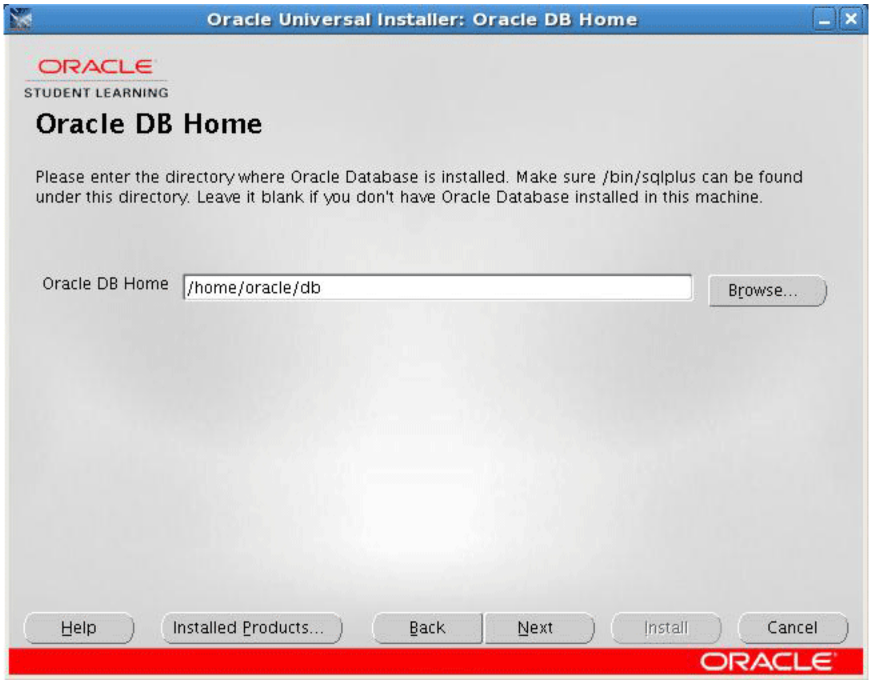
9. Click **Next**.

10. If you selected **Yes** in Step 8, the **Oracle DB Home** screen displays. Click **Next**.

    - If the Oracle DB is installed on this computer, the database path in the **Oracle DB Home** field. The installer uses the SQL*Plus that is distributed with the Oracle DB.
    - If the Oracle DB is not installed on this computer, leave the **Oracle DB Home** field blank.

    Note: You must provide the path to the SQL*Plus Instant Client in Step 7.

Figure 2–5 Specify the Oracle DB Home path



Oracle DB Home

Please enter the directory where Oracle Database is installed. Make sure /bin/sqlplus can be found under this directory. Leave it blank if you don't have Oracle Database installed in this machine.

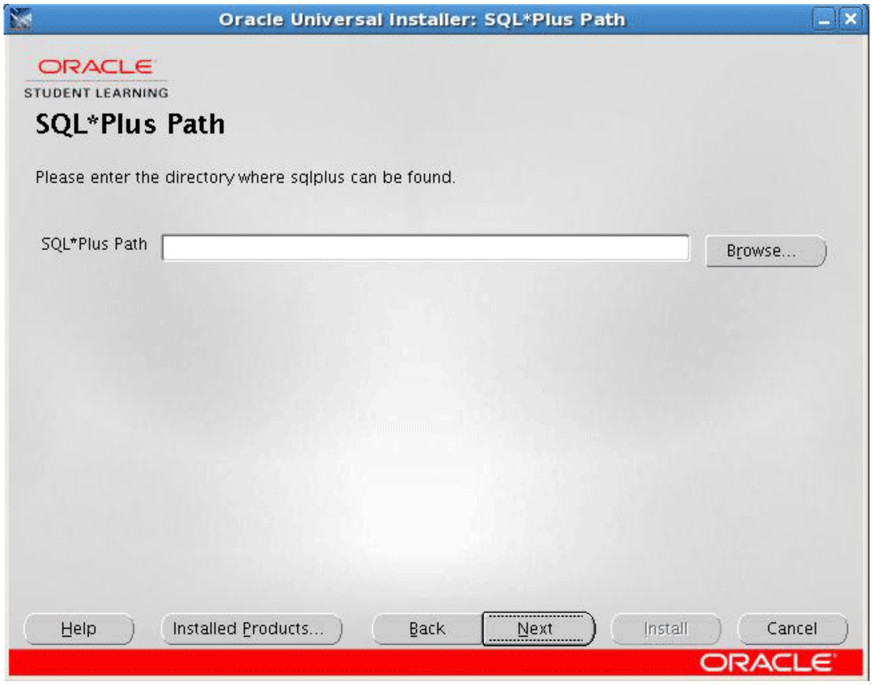
Oracle DB Home: /home/oracle/db

11. If you leave the input field blank in the **Oracle DB Home** screen, the **SQL*Plus Path** screen displays.

    Enter the path to the SQL*Plus Instant Client, where `sqlplus` is located.

12. Click **Next**.

*Figure 2–6 Specify the SQL*Plus Directory Path*



SQL*Plus Path

Please enter the directory where sqlplus can be found.

SQL*Plus Path

13. On the **Database Information** screen, enter the following information:

- **Host Name**

  The host name or IP address of the database server.

- **Port**

  The listening port number of the database server.

- **SID**

  The unique Oracle System ID that identifies the database that OSL is using.

- **OSL DB Username**

  The user name of the OSL DB account.

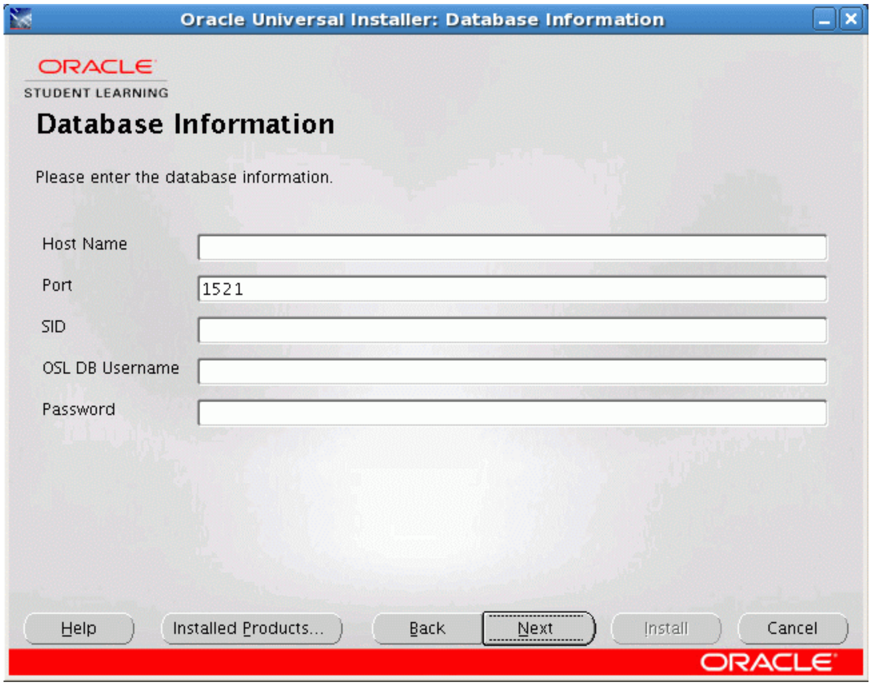
- **Password**

  The password of the OSL DB account.

Proceed to Step 25.

14. Click **Next**.

Figure 2–7 Specify Database Information



Database Information

Please enter the database information.

Host Name

Port 1521

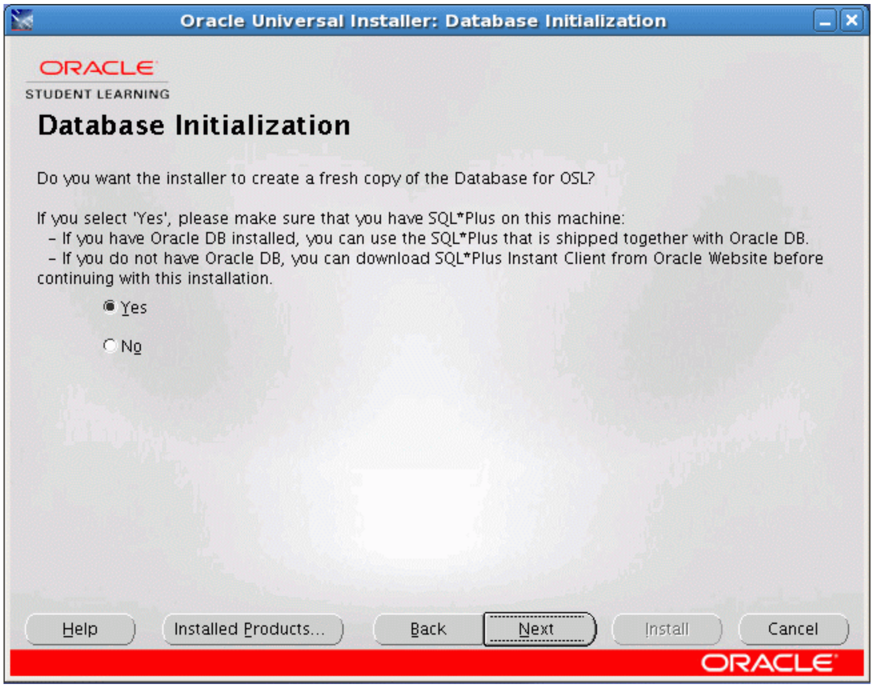
SID

OSL DB Username

Password

15. If you selected **No** in Step 8, the **Database Initialization** screen displays.

Figure 2–8 Choose Whether to Initialize the Database



Oracle Universal Installer: Database Initialization

Database Initialization

Do you want the installer to create a fresh copy of the Database for OSL?

If you select 'Yes', please make sure that you have SQL*Plus on this machine:
- If you have Oracle DB installed, you can use the SQL*Plus that is shipped together with Oracle DB.
- If you do not have Oracle DB, you can download SQL*Plus Instant Client from Oracle Website before continuing with this installation.

● Yes

○ No

- Select **Yes** to initialize the Learning Tool Database for OSL components.

  If you select **Yes**, ensure that SQL*Plus is available on this computer.

- Select **No** to choose not to initialize the Learning Tool Database for OSL components.

  If you select **No**, you must perform the following steps after installation.

  a. Use the database **SYSTEM** account to run the `Tablespace_Creation.sql` script in the `[OSL Home]/LearningTool/Scripts` directory.

  b. Create a database account to be used for the Learning Tool.

  i). Create the user `<db_username>` identified by `<db_password>` default tablespace OSL_DATA.

  ii). Grant the following privileges to this account:

  grant connect, resource, create table, create view, create sequence to `<db_username>`

  c. Use the database account created in Step (b) to run the following SQL scripts available in the `[OSL Home]/LearningTool/Scripts` directory.

  - `DB_Creation.sql`

  -`Production_Seed_Data.sql`

16. Click **Next**.

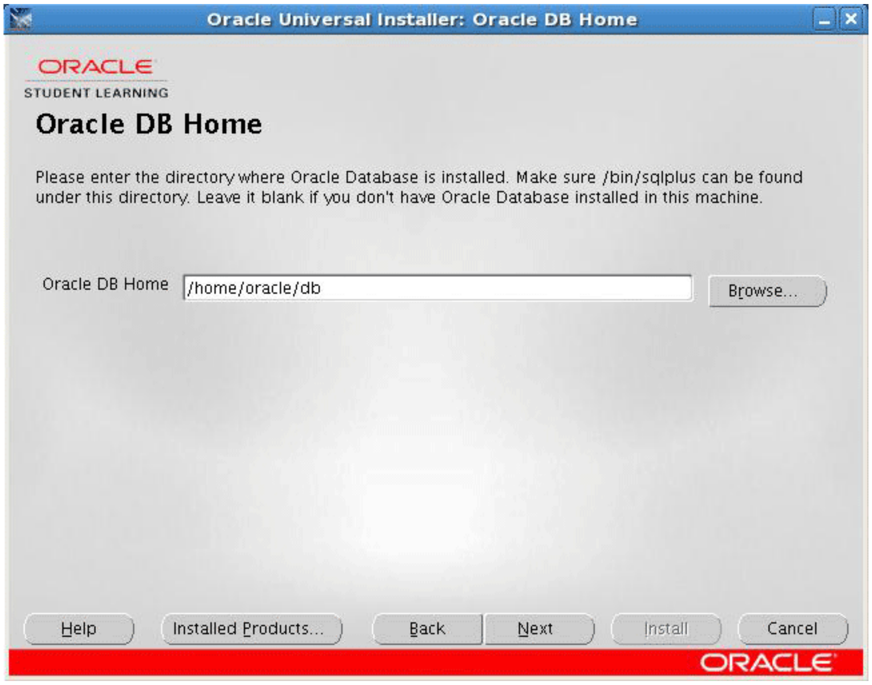
17. If you selected **Yes** in Step 15, the **Oracle DB Home** screen displays.

If you selected **No**, then proceed to Step 25.

- If the Oracle DB is installed on this computer, enter its path in the **Oracle DB Home** field. The installer uses the SQL*Plus distributed with the Oracle DB.

- If the Oracle DB is not installed on this computer, leave the Oracle DB Home field blank. Provide the path to the SQL*Plus Instant Client in Step 19.

Figure 2–9 Specify the Oracle DB Home path



Oracle Universal Installer: Oracle DB Home

Oracle DB Home

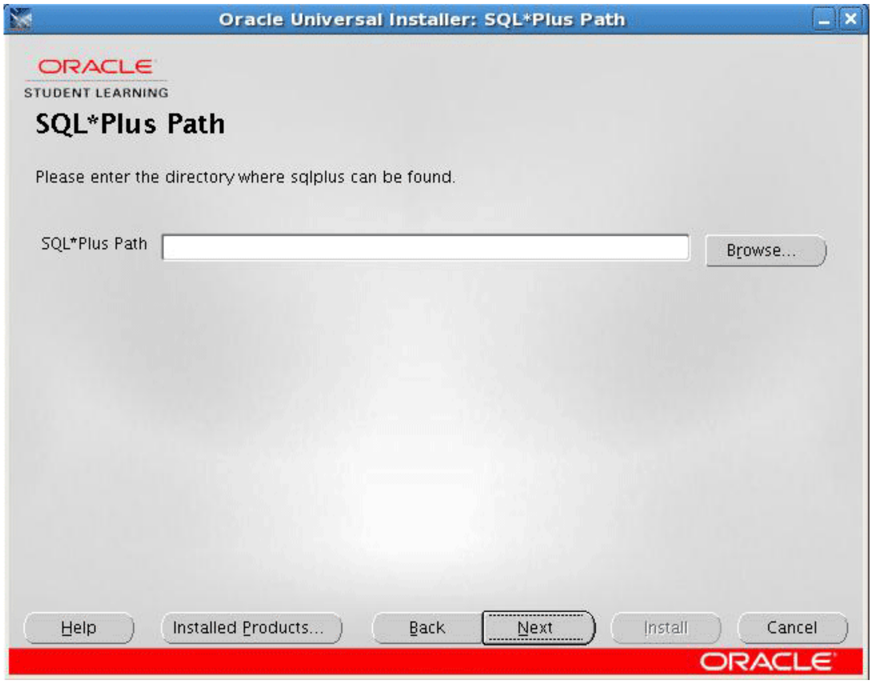
Please enter the directory where Oracle Database is installed. Make sure /bin/sqlplus can be found under this directory. Leave it blank if you don't have Oracle Database installed in this machine.

Oracle DB Home: /home/oracle/db

18. Click **Next**.
19. If you left the **Oracle DB Home** field blank in Step 17, the **SQL*Plus Path** screen displays.

    In the **SQL*Plus Path** field, enter the path to *`sqlplus`*.
20. Click **Next**.

*Figure 2–10 Specify the SQL*Plus Path*


Oracle Universal Installer: SQL*Plus Path

ORACLE STUDENT LEARNING

SQL*Plus Path

Please enter the directory where sqlplus can be found.

SQL*Plus Path

21. On the **Database Information** screen, enter the following information:

- **Host Name**

  The host name or IP address of the database server.

- **Port**

  The listening port number of the database server.

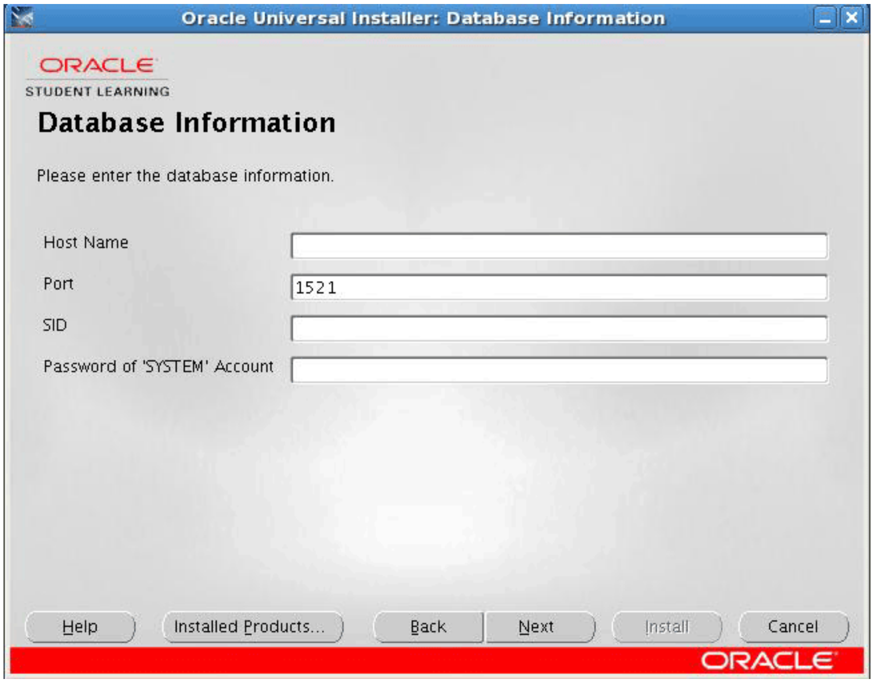
- **SID**

  The Oracle System ID that uniquely identifies a particular database on a system.

- **Password of 'SYSTEM' account**

  The password of the *SYSTEM* user.

Figure 2–11 Specify the Database Information



Database Information

Please enter the database information.

Host Name

Port: 1521

SID

Password of 'SYSTEM' Account

22. Click **Next**.

23. On the **DB Account for OSL** screen, enter the following information to create an OSL database account:

    - **OSL DB Username**

      The user name of the OSL DB account.

    - **Password**

      The password of the OSL DB account.

    - **Confirm Password**

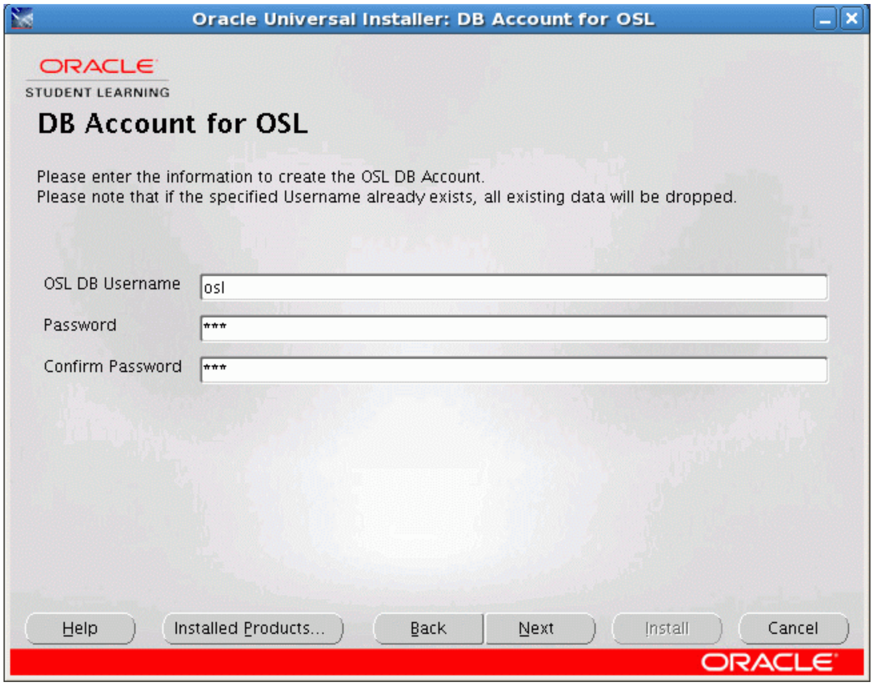
      Enter the OSL DB account password again.

    WARNING: If the specified OSL DB user name exists, it is dropped and created again. Therefore, all existing data is lost.

    ---

24. Click **Next**.

Figure 2–12 Create a DB Account for OSL



Oracle Universal Installer: DB Account for OSL

ORACLE STUDENT LEARNING

DB Account for OSL

Please enter the information to create the OSL DB Account.
Please note that if the specified Username already exists, all existing data will be dropped.

OSL DB Username: osl

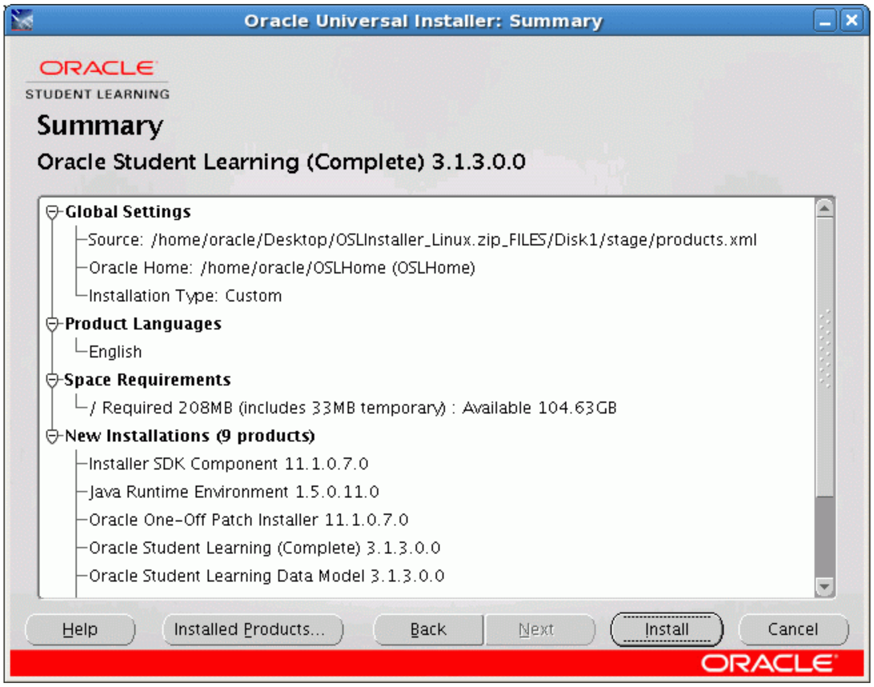
Password: ***

Confirm Password: ***

25. Ensure the **Summary** screen displays correct information and click **Install**.

    To make any modifications in the previous screens, click **Back**.

Figure 2–13 Begin the Installation



Oracle Universal Installer: Summary

ORACLE STUDENT LEARNING

Summary

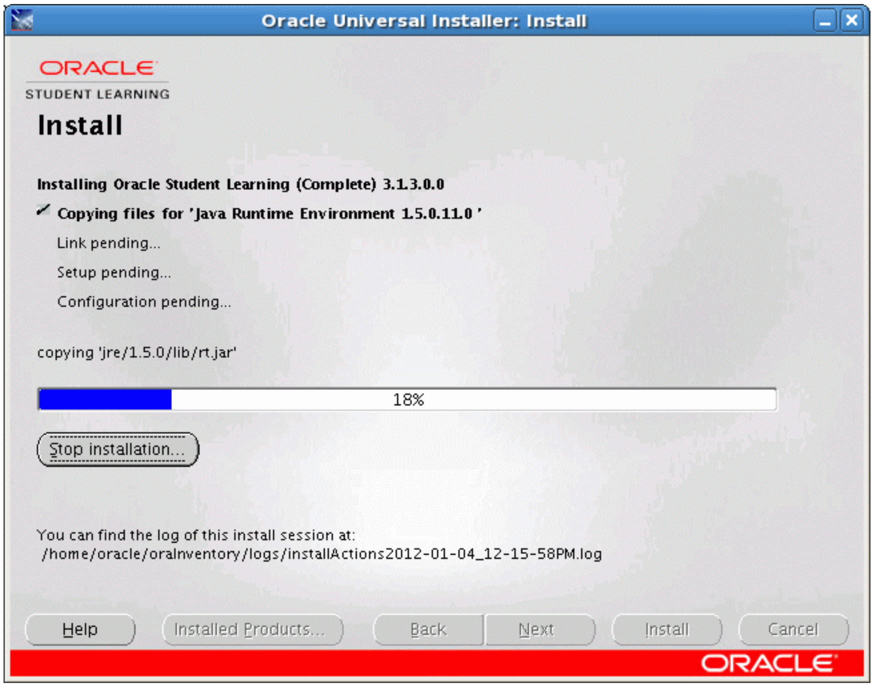
Oracle Student Learning (Complete) 3.1.3.0.0

```
Global Settings
  Source: /home/oracle/Desktop/OSLInstaller_Linux.zip_FILES/Disk1/stage/products.xml
  Oracle Home: /home/oracle/OSLHome (OSLHome)
  Installation Type: Custom
Product Languages
  English
Space Requirements
  / Required 208MB (includes 33MB temporary) : Available 104.63GB
New Installations (9 products)
  Installer SDK Component 11.1.0.7.0
  Java Runtime Environment 1.5.0.11.0
  Oracle One-Off Patch Installer 11.1.0.7.0
  Oracle Student Learning (Complete) 3.1.3.0.0
  Oracle Student Learning Data Model 3.1.3.0.0
```

26. On the **Install** screen, wait for the installation to complete.

    Click **Next** after the progress bar indicates completed installation.

Figure 2–14 Wait for Installation to Complete



Installing Oracle Student Learning (Complete) 3.1.3.0.0

✓ Copying files for 'Java Runtime Environment 1.5.0.11.0 '

Link pending...

Setup pending...

Configuration pending...

copying 'jre/1.5.0/lib/rt.jar'

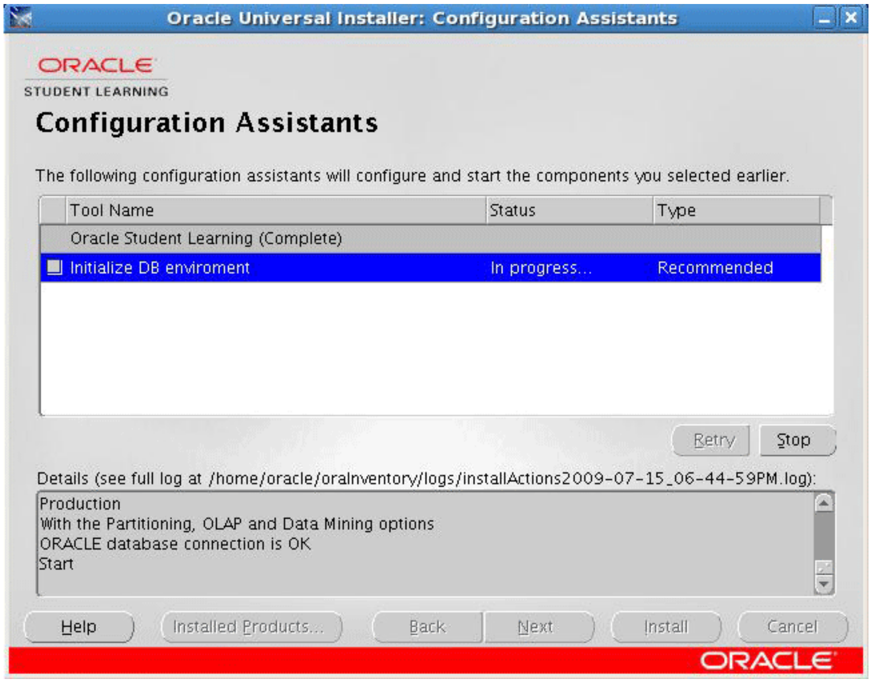
18%

You can find the log of this install session at:
/home/oracle/oraInventory/logs/installActions2012-01-04_12-15-58PM.log

27. If you selected to upgrade or initialize the Learning Tool Database in Step 15, the **Configuration Assistant** screen displays.

The installation of OSL component is complete. Proceed to the configuration steps.

Figure 2–15 Viewing the Configuration Assistants



The following configuration assistants will configure and start the components you selected earlier.

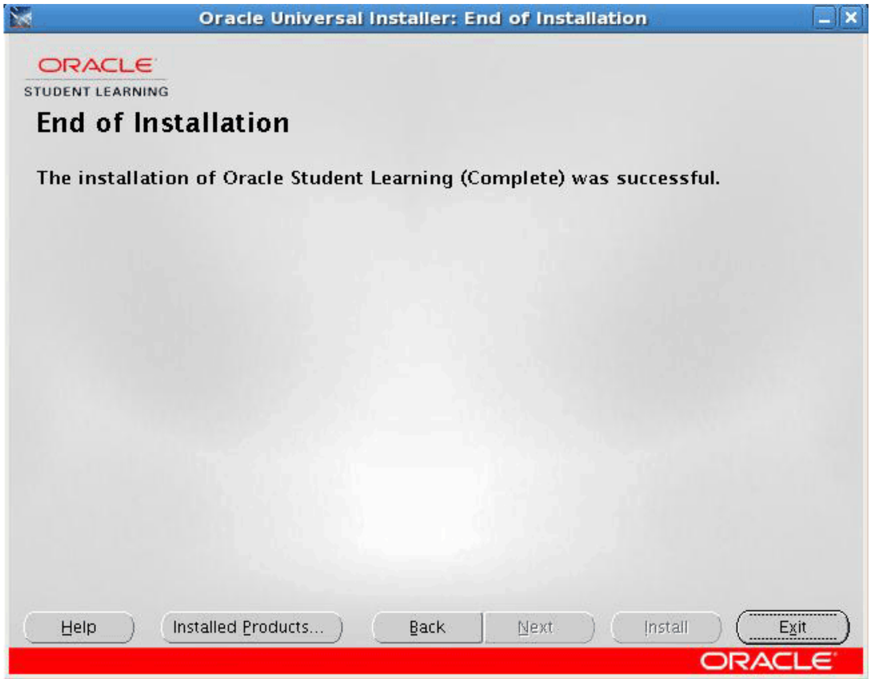
Tool Name	Status	Type
Oracle Student Learning (Complete)		
□ Initialize DB enviroment	In progress...	Recommended

Details (see full log at /home/oracle/oraInventory/logs/installActions2009-07-15_06-44-59PM.log):

```
Production
With the Partitioning, OLAP and Data Mining options
ORACLE database connection is OK
Start
```

28. On the **End of Installation** screen, click **Exit**.

Figure 2–16 Exiting the Installation Wizard



Oracle Universal Installer: End of Installation

End of Installation

The installation of Oracle Student Learning (Complete) was successful.

After the installation process, the following directory structure is available.

Depending on your installation selection, some folders might not be applicable as shown in the example below.

Table 2–1, " OSL Installation Footprint" is an example of a complete OSL installation.

Table 2–1 OSL Installation Footprint

Folders and Files	Descriptions
–LearningTool	Contains related files and documents for the following components: ■ Content Integration ■ Learning Tool ■ Student Reporting ■ Repeatable Data Loading
—OSLLearningToolApp.ear	The Learning Tool EAR file.
—Configuration	Contains all the customizable files for OSL Learning Tool Admin and OSL Learning Tool.
–––Admin	
––––DeploymentDescriptors	Contains all the customizable deployment descriptors for OSL Learning Tool Admin.
–––––faces-config.xml	
–––––web.xml	
–––––weblogic.xml	
––––Images	Contains all the customizable icons and images for OSL Learning Tool Admin.

Table 2–1 (Cont.) OSL Installation Footprint

Folders and Files	Descriptions
––––Labels	Contains all the customizable labels and text for OSL Learning Tool Admin.
–––Common	
––––background	Contains all background images
––––resources	
–––––BackgroundImagesRes.properties	Contains the location of the background images
–––––BackgroundTitle.properties	Contains the title of the background images. The titles appear in the UI.
–––LearningTool	
–––––ckeditor	
––––DeploymentDescriptors	Contains all the customizable deployment descriptors for OSL Learning Tool.
–––––adf-config.xml	
–––––faces-config.xml	
–––––jazn-data.xml	
–––––persistence.xml	
–––––osl_configuration.properties	
–––––osl_learning_item_types.xml	
–––––web.xml	
–––––weblogic.xml	
–––––weblogic-ejb-jar.xml	
––––Images	Contains all the customizable icons and images for OSL Learning Tool.
––––Labels	Contains all the customizable labels and text for OSL Learning Tool.
––ContentIntegration	Contains files related to Default Content Integration.
–––components	
––––OSL_Add_Cancel.zip	
––––OSL_LocaleString.zip	
––––OSL_CheckinLayout.zip	
––––OSL_AdvSearchComponent.zip	
––––OSL_SearchTemplate.zip	
––––OSL_School.zip	
––––OSL_Javascript.zip	
––––OSL_DefaultEnv.zip	
––––OSL_SelectivelyRefineAndIndex.zip	
––––OSL_RemoveStandardProfileLinks.zip	
––––OSL_RemoveSwitchProfile.zip	

Table 2–1 (Cont.) OSL Installation Footprint

Folders and Files	Descriptions
––––OSL_CustomAction.zip	
––––OSL_Home_Page_Content.zip	
––––OSL_InterfaceChanges.zip	
––––OSL_ClassicSearchTemplate.zip	
––––AdditionalSortFields.zip	
––––OSL_SearchResults.zip	
–––DCI_Config_Assistant.zip	Contains DCI Configuration Assistant for configure UCM server with the required rules, profiles, and search template.
–––wsdl	Contains the .wsdl and .xsd files for Content Integration Web Services. These Web services abstract all the interactions of OSL back-end with an integrated external Content Management System. These interactions include: ■ General Content Integration (links and images) ■ OSL Content Integration (attachments and audio) ■ Publishing Learning Item Services (exporting and importing a Learning Item)
––––OSLContentIntegrationService.wsdl	
––––OSLContentIntegrationService.xsd	
––––GeneralContentIntegrationService.wsdl	
––––GeneralContentIntegrationService.xsd	
––––PublishLearningItemService.wsdl	
––––PublishLearningItemService.xsd	
–––scripts/oid	Contains files for OID setup
–––scripts/ucm	Contains scripts for UCM setup
––––DB_insert.sql	
––StudentReporting	Contains files related to Student Reporting.
–––OSLCatalog.zip	
–––OSL.rpd	
–––OSL_error_messages.xml	
––Scripts	Contains the Learning Tool configuration files.
–––Tablespace_Creation.sql	
–––DB_Creation.sql	
–––Production_Seed_Data.sql	

Table 2–1 (Cont.) OSL Installation Footprint

Folders and Files	Descriptions
–––Updated_Seed_Data_For_JP.sql	The script to update Japanese seed data on top of English data.When you run this script, ensure that the database version is the latest for this release. For software supported and required by this release, see *Oracle Student Learning Release Notes*.
–––DB_Upgrade.sql	
–––InitializeDB.sh	The script to initialize Learning Tool Database.
–––UpgradeDB.sh	The script to upgrade Learning Tool Database.
–––build.xml	The Ant build script that allows users to deploy the Learning Tool and Learning Tool Admin EAR file.
–––build.properties	The properties file to be used with Ant build scripts.
––RDL	Contains the Repeatable DataLoading related files.
–Doc	Contains Oracle Student Learning related documents.
–––InstallationDeploymentGuide.pdf	
–––LearningToolUsersGuide.pdf	
–––OSLProgrammersGuide.pdf	
–––LearningToolCustomizationGuide.pdf	
–––LearningToolAdminUsersGuide.pdf	
–––ImplementationGuide.pdf	
–ReleaseNotes.pdf	The release notes of Oracle Student Learning.
–OPatch	Contains the OPatch tool to apply patches.
–oui	Contains the OUI executable file.

After you install OSL, deploy it using the deployment steps.

3 Using Installation Log and Supporting Files

All actions that occur during OSL installation and modifications to the target computer are recorded in the installation log. Therefore the installation log is useful for debugging.

The following table lists the installation log and other files that the installation process produces.

Table 3–1 Installation Log and Supporting Files

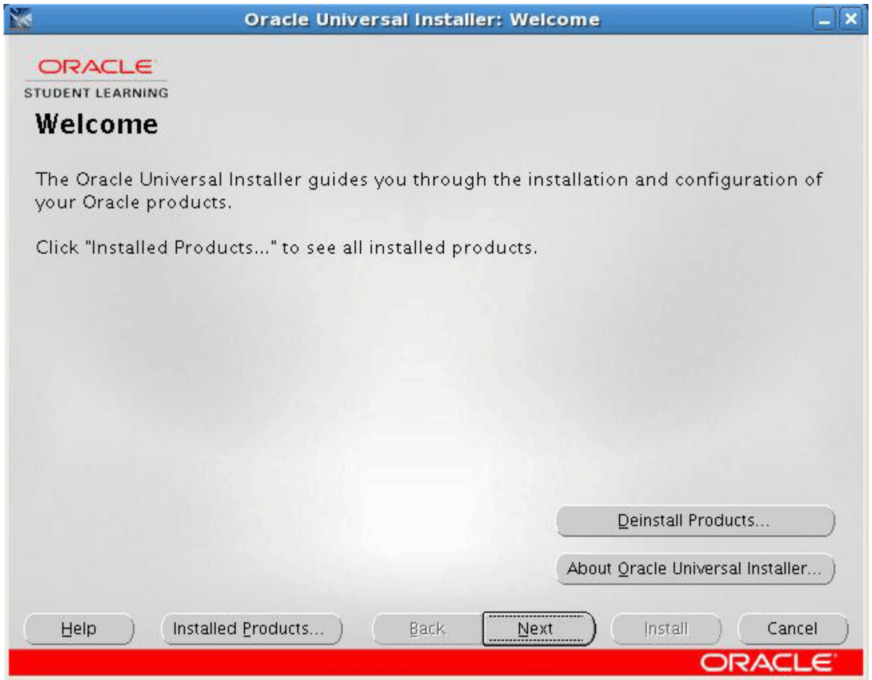
File name	Location	Notes
installActions<*timestamp*>.log	<*OSL installation directory*> /...cfgtoollogs/oui	
oraInstall<*timestamp*>.err	<*OSL installation directory*> /...cfgtoollogs/oui	
oraInstall<*timestamp*>.out	<*OSL installation directory*> /...cfgtoollogs/oui	
UpgradeDB_<*timestamp*>.log	<*OSL installation directory*> /...cfgtoollogs/UpgradeDB	This file is created if you choose upgrade the Learning Tool Database during the installation. Verify this log to ensure that the Learning Tool Database upgrade completed successfully.
InitializeDB_<timestamp>.log	<*OSL installation directory*> /...cfgtoollogs/InitializeDB	This file is created if you choose to initialize the Learning Tool Database during the installation. Verify this logs to ensure that the Learning Tool Database initialization completed successfully.

4 Uninstallation Tasks

To remove the OSL components, perform the following tasks:

1. Run the `runInstaller` executable file.

Figure 4–1 Welcome Screen



Oracle Universal Installer: Welcome

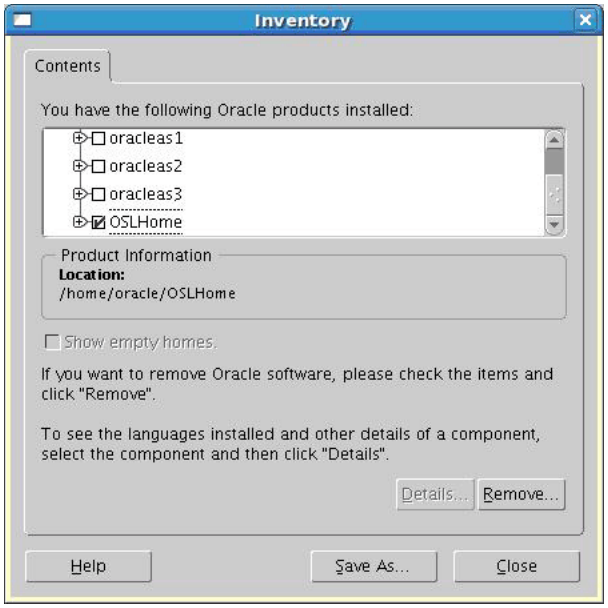
Welcome

The Oracle Universal Installer guides you through the installation and configuration of your Oracle products.

Click "Installed Products..." to see all installed products.

2. On the **Oracle Universal Installer: Welcome** screen, **Deinstall Products**.

Figure 4–2 Inventory Panel



You have the following Oracle products installed:

⊕□ oracleas1
⊕□ oracleas2
⊕□ oracleas3
⊕☑ OSLHome

Product Information
Location:
/home/oracle/OSLHome

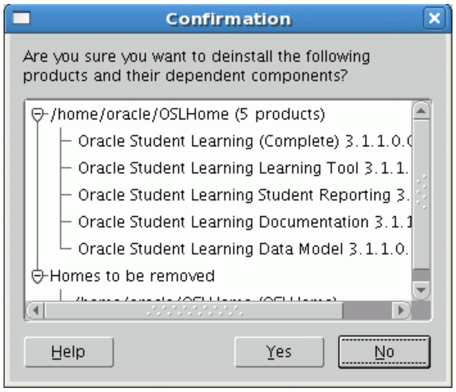
□ Show empty homes.

If you want to remove Oracle software, please check the items and click "Remove".

To see the languages installed and other details of a component, select the component and then click "Details".

3. On the **Contents** tab of the **Inventory** panel, select **Oracle home**.
4. Click **Remove**.

Figure 4–3 Confirmation Screen



Are you sure you want to deinstall the following products and their dependent components?

⊖ /home/oracle/OSLHome (5 products)
- Oracle Student Learning (Complete) 3.1.1.0.0
- Oracle Student Learning Learning Tool 3.1.1.
- Oracle Student Learning Student Reporting 3.
- Oracle Student Learning Documentation 3.1.1
- Oracle Student Learning Data Model 3.1.1.0.

⊖ Homes to be removed

5. In the **Confirmation** dialog, click **Yes**.

Note:

- If you chose to initialize the database during installation, the database schema is not removed during uninstallation.
- When the Oracle home or OSLHome is removed, you can reuse its name and location to install other components.

Part II

Deploying the OSL Learning Tool

You can deploy the OSL Learning Tool only after installing OSL. Ensure that the Oracle database is initialized.

> **Note:** In this guide, `[OSL Home directory]` refers to the OSL installation directory.

This part contains the following chapters that describe the Learning Tool (LT) deployment:

- Chapter 5, "Configuring Oracle Internet Directory"
- Chapter 6, "Configuring Oracle Universal Content Management Default Integration"
- Chapter 7, "Configuring Oracle Business Intelligence Enterprise Edition"
- Chapter 8, "Configuring WebLogic Server"
- Chapter 9, "Deploying OSL Learning Tool Admin and OSL Learning Tool"
- Chapter 10, "Configuring OSSO Solution"
- Chapter 11, "Configuring Oracle Access Manager 10g"
- Chapter 12, "Installing and Configuring Oracle Access Manager 11g"

5 Configuring Oracle Internet Directory

Oracle Internet Directory (OID) is the default LDAP mechanism used by OSL Learning Tool (OSL LT) components for authentication and authorization.

OID is an LDAP Version 3 certified directory. Users are granted access and privileges within OSL based on the groups they are assigned in OID.

5.1 Creating Groups in OID

There are two possible deployment scenarios.

5.1.1 Scenario 1: Using Existing Groups for OSL

This scenario applies when the deployment uses an OID instance with existing users assigned to predefined groups. In this scenario, creating new groups is not required. However, customization is required to map existing groups to OSL application-specific roles. For more information about mapping OID groups, see Section 9.1.4, "Updating Security Role Mappings".

5.1.2 Scenario 2: Creating New Groups for OSL

This scenario applies when the deployment uses an OID instance where users must be assigned to new groups. The following groups should be created:

- `DeptAdminGroup`
- `DeptCurrAdminGroup`
- `SchAdminGroup`
- `SchCurrAdminGroup`
- `TeacherGroup`
- `StudentGroup`
- `ParentGroup`
- `DataLoadingGroup`
- `ContentIntegrationGroup`

5.2 Understanding Pre-seeded Users and Institution in OSL Database

One institution and three users are pre-seeded into the OSL database during installation. These are described below:

- **Department**

This is a special institution and is the root of the institution hierarchy. It is pre-seeded with a name of "Department Of Education" and organization type of "DEPARTMENT".

You can change the name **Department** after installation and deployment of OSL.

- **DataLoading**

  This is a user with access to the OSL LT DataLoading service.

- **ContentIntegration**

  This is a user with access to the OSL Content Management System (CMS) integration service.

For related information about configuring the two pre-seeded users in OID, see Section 5.4, "Assigning Content Integration User".

For related information about updating the name of Department, see Section 5.6, "Updating the Name of Department".

5.3 Assigning Data Loading User

The user named **DataLoading** is created as part of database initialization during OSL installation. See Step 15 of the installation process in Chapter 2, "Installation Tasks". Access to the OSL LT DataLoading service is granted to an OID user belonging to the `DataLoadingGroup` (or the equivalent, mapped OID Group, as described in **Scenario 1** of Section 5.1, "Creating Groups in OID"). This user has the DataLoading role in OSL.

Create a user named **DataLoading** as a member of the DataLoadingGroup of OID. See Section 5.1, "Creating Groups in OID" for detailed information.

Alternatively, create and assign a DataLoading user to the DataLoadingGroup in the WebLogic embedded LDAP server. Detailed instructions for creating users and groups in the embedded LDAP server are available at:

```
http://download.oracle.com/docs/cd/E14571_
01/apirefs.1111/e13952/taskhelp/security/ManageUsersAndGroups.ht
ml
```

If an LDAP server is also set up as a Security Provider (See Section 8.5, "Configuring OID as Security Provider" for more information), then the order of the providers must be as follows:

1. LDAP Authenticator (SUFFICIENT)
2. Default Authenticator (SUFFICIENT)

5.4 Assigning Content Integration User

The user named **ContentIntegration** is created as part of database initialization during OSL installation. See Step 15 of the installation process in Chapter 2, "Installation Tasks". Access to the OSL CMS integration service is granted to an OID user belonging to the ContentIntegrationGroup (or the equivalent, mapped OID Group, as described in **Scenario 1** of Section 5.1, "Creating Groups in OID".) This user has the ContentIntegration role in OSL.

Create a user named **ContentIntegration** as a member of the ContentIntegrationGroup of OID. See Section 5.1, "Creating Groups in OID" for detailed information.

Alternatively, create and assign a **ContentIntegration** user to the ContentIntegrationGroup in the WebLogic embedded LDAP server as explained in Section 5.3, "Assigning Data Loading User".

5.5 Creating a User and Assigning Department Administrator Role

To create and load users, use the `createPersons` method in `DataLoadingpartyService` of the OSL LT Data Loading service. At least one user must be the Department Administrator to access the department administration functionality in the OSL LT Admin user interface (UI). This user can assign other application roles and configure the OSL system in OSL LT Admin.

Following these steps to create a Department Administrator:

1. Use the `createPersons` method in `DataLoadingpartyService`.
2. Enter appropriate information for the following parameters:
   - **firstName:** for example, Robert
   - **lastName:** for example, Brown
   - **Relationship action:** Create
   - **RelationshipType:** DEPARTMENT_ADMIN_OF
   - **TargetPartyId:** ID of Department (Department in OSL database normally has an ID of 2)

The OSL LT Data Loading service assigns a login ID in the `firstName.lastName` format, for example, `Robert.Brown`.

A default password `welcome1` is assigned. Use OID to manually replace this password with a secure password.

For information about deploying the OSL Learning Tool, see Part II, "Deploying the OSL Learning Tool".

For information about using the `createPersons` method, see Section 2.1.6, "createPersons," in *Oracle Student Learning Programmer's Guide*.

5.6 Updating the Name of Department

The pre-seeded institution in the OSL database has the default organization type `DEPARTMENT` and default name `Department Of Education`. After OSL installation and deployment, you can change the name.

Log in to OSL LT Admin as the Department Administrator to change the institution name.

For information about creating the user with the role of Department Administrator, see Section 5.5, "Creating a User and Assigning Department Administrator Role".

For information about changing the name of Department using LT Admin, see Chapter 3, How to Manage Institutions, in *Oracle Student Learning Learning Tool Admin User's Guide.*

6

Configuring Oracle Universal Content Management Default Integration

Integrate the OSL Learning Tool with an External Content Management System (ECMS) from which users can add content when working with rich data. ECMS is also used as a file storage and delivery system to store and supply objects created and used in the OSL Learning Tool.

By default, this release is integrated with Oracle Universal Content Management (UCM). For information about the OSL content integration architecture, see *Oracle Student Learning Programmer's Guide*.

> **Note:** Section 6.1, "Content Server 10g Configuration", Section 6.2, "Content Server 11g Configuration", and Section 6.3, "Configuration of Content Servers 10g and 11g" are applicable for configuring the OSL default integration with Oracle UCM.

Configuring the OSL default integration with Oracle UCM involves the following:

- Configuring OSL users to use UCM
- Configuring OSL-UCM back-end connectivity (Intradoc Communication)
- Configuring OSL default back-end integration
- Configuring OSL-UCM client-side integration

> **Note:** All configuration on the OSL side is specified in the `osl_configuration.properties` file. The detailed description of each property is available in Section 9.1.5, "Updating Content Integration Configuration".

6.1 Content Server 10*g* Configuration

To configure Content Server 10*g*, perform the steps in the subsections.

6.1.1 Configuring OID as Security Provider for UCM

To allow access to all OSL users, configure UCM with an LDAP provider where the LDAP server is the OID used by OSL.

To configure the LDAP provider for UCM:

1. Open a Web browser.

2. Open the Oracle UCM URL.
3. Log in as **sysadmin**.
4. Choose **Administration** > **Providers**.
5. Choose **Add** in **ldapuser**.
6. Provide the following information:
   a. Provider name: **OID**
   b. Provider class: **intradoc.provider.LdapUserProvider**
   c. Connection class: **intradoc.provider.LdapConnection**
   d. Source Path: <*A unique string that identifies the LDAP provider*>
   e. LDAP server: <*Host name or IP address of the OID server used by OSL*>
   f. LDAP suffix: <*LDAP suffix of user base DN. Example: dc=...*>
   g. LDAP port: <*Port of the OID server used by OSL*>
   h. Use Group Filtering: select
   i. Role Prefix: **cn=Groups**
   j. LDAP Admin DN: <*administrator account of OID, Example: cn=orcladmin*>
   k. LDAP Admin password: <*password of the OID administrator*>
7. Restart **Oracle UCM**.
8. Log in to **Oracle UCM** again.
9. Select **Administration** > **Providers**.
10. Verify that the connection status of the new LDAP Provider is **Good**.

You can find information about External Security:LDAP in *Managing Security and User Access for Content Server* in the *Oracle Universal Content Management Documentation* at

`http://download.oracle.com/docs/cd/E10316_01/ouc.htm`

6.1.2 Enabling Intradoc Communication

Communication between the default OSL content integration with **Oracle UCM** is made through the Intradoc protocol. To enable such communication, configure **Oracle UCM** to trust the OSL server.

1. Log in to the **Oracle UCM** server.
2. Open the `$UCM_HOME/server/config/config.cfg` file.
3. Add the IP address of the server where you want to deploy OSL Learning Tool, to the `SocketHostAddressSecurityFilter` property.
4. Restart the UCM server.
   a. Log in to **Oracle UCM** web from browser as **sysadmin**.
   b. Select **Administration** > **Admin Server** to launch the **UCM Admin Server** web.
   c. Click **Restart** for the appropriate UCM server instance.

6.2 Content Server 11*g* Configuration

To configure Content Server 11*g*, perform the steps in the subsections.

6.2.1 Configuring OID as Security Provider for Content Server 11*g*

Set up the Content Server to use OID as the security provider.

To define a Security Provider for UCM WLS:

1. Open the **UCM WLS Administration Console**:

   `http://<UCM_WLSHostName>:<UCM_WLS_PORT>/console`

2. Log in to the console using an administrator account.
3. In the UCM WLS console, select **Security Realms** > **myrealm** (default) > **Providers** (tab).
4. In the **Authentication Providers** table, select **New**.
5. Enter a name for the authentication provider in the **Name** field, for example **`OSL_OID`**.
6. Choose **OracleInternetDirectoryAuthenticator** from the **Type** list.
7. Click **OK**.

   An authentication provider is created in UCM WLS.

8. On the **Providers** tab, select the new authentication provider instance to navigate to its configuration page.
9. Select the **Provider Specific** tab under the **Configuration** tab.
10. Edit the properties in the **Provider Specific** configuration as shown in Table 6–1.

Table 6–1 Provider Specific Properties

Attribute	Value	Meaning
Host	*`<OID hostname>`*	
Port	`3060`	Default non-SSL OID port
Principal	`cn=`**`orcladmin`**	Administrator account to connect to OID
Credential	<***`orcladmin`*** *password*>	Password for OID administrator account
Confirm Credential	<***`orcladmin`*** *password*>	
User Base DN	*`<OID User Search Base>`*	Value of the **User Search Base** attribute in OID. You can find this value on the OID administration page. The format of this value is: `cn=users,dc=...`
Use Retrieved User Name as Principal	`Check`	Specifies whether the user name retrieved from OID is used as the Principal in the Subject.

Table 6–1 (Cont.) Provider Specific Properties

Attribute	Value	Meaning
Group Base DN	*<OID Group Search Base>*	Value of the **Group Search Base** attribute in OID, can be looked up in the OID administration page. Value looks like: `cn=Groups, dc=...`
Propagate Cause for Login Exception	`Check`	Propagates OID exceptions to ECM WLS to show in the console and logs.

11. Click **Save**.
12. Restart the UCM WLS instance.
13. Log in to the UCM WLS console.
14. Select **Security Realms** > **myrealm** (default) > **Users and Groups** (tab).

    You can see the OID Users and Groups.
15. Modify the **Control Flag** attribute of the security provider so that OSL users must be authenticated only against OID:
    a. Select **Security Realms** > **myrealm** (default) > **Providers** > [*security provider name*] > **Configuration** > **Common**.
    b. Set **Control Flag** to **Sufficient**.
16. Reorder the new security provider to be the first authentication provider.
17. Restart the UCM WLS instance.

In addition to the above configuration, you must:

- Add two users, `oslcontent` and `oslmetadata`, to the DefaultAuthenticator.
- Set default passwords for these users.

6.2.2 Enabling Intradoc Communication

To enable Intradoc communication:

1. Log in to UCM Enterprise Manager.
2. Click **Farm** > **Content Management** > **Universal Content Management** > **Content Server** > **Oracle UCM - Content Server**.
3. From the menu, select the **UCM** > **Configuration**.
4. Enter a value for **Intradoc ServerPort**.
5. Add the IP address of the server to which to deploy OSL Learning Tool, to the **IP Address Filter** property.
6. Restart the Admin Server and Content Server.

6.2.3 Setting the Content Type

The predefined document types available in Content Server 11*g* include Application, Digital Media, and Document. You can set one of these values in the OSL configuration properties file as follows:

```
osl.lt.content.ucmIntegration.oslContentDoctype=Application
```

6.3 Configuration of Content Servers 10*g* and 11*g*

Below are the configuration steps for Content Server 10*g* and 11*g*.

6.3.1 Configuring the Default Server Integration

OSL provides default implementation of the Content Integration Web Services Interface to communicate with Oracle UCM. To support this implementation, configure the following:

- Web service end point URIs
- Configurations related to General Content storage and access
- Configurations related to General Content reference metadata tagging
- Configurations related to OSL Content storage and access
- Configurations related to exported learning item storage and access

Ensure that all the mandatory properties that do not have default values are assigned valid values. For more information, see Chapter 9, "Deploying OSL Learning Tool Admin and OSL Learning Tool".

6.3.1.1 Configuring Web Service End Point URLs

By default, the OSL content integration does not use Web service to communicate with the OSL Learning Tool server. You can ignore this section if you are using the default OSL content integration.

However, if you are developing a custom implementation of content integration, you must expose the implementation as a set of web services. This functionality is specified in the "Content Integration Web Services Interface" section of the *Oracle Student Learning Programmer's Guide*. You must update the following properties in the OSL configuration file:

- osl.lt.service.content.contentProxytype: set to **WS**
- osl.lt.service.content.wsProxyGeneralContentServiceURL: service end point of the General Content Service implementation
- osl.lt.service.content.wsProxyOSLContentServiceURL: service end point of the OSL Content Service implementation
- osl.lt.service.content.wsProxyPublishServiceURL: service end point of the Publish Service implementation

6.3.1.2 Configuring General Content Storage and Access

Information about configuring General Content Storage and access is available in *Oracle Student Learning Implementation Guide*.

6.3.1.3 Configuring General Content Reference Metadata Tagging

The default Content Integration supports metadata tagging for General Content. For detailed information about associateContent service, see *Oracle Student Learning Programmer's Guide*. The default setting assumes that the required OSL related metadata fields are available in Oracle UCM. You must map these metadata fields to OSL context fields in the OSL configuration file. When a General Content document is referenced from OSL Learning Tool, context information is associated to that document as metadata for each mapping.

Configuring General Content Reference Metadata involves:

- Configuring the mapping of OSL context to UCM metadata.
- Configuring metadata users to tag General Content documents with the OSL context.
- Configuring searchability based on the OSL context.

The following properties map the OSL context to UCM metadata:

- osl.lt.content.ucmIntegration.metadata.OutcomeStatementId = xOSL_OutcomeStatementId
- osl.lt.content.ucmIntegration.metadata.FrameworkItemId = xOSL_FrameworkItemId
- osl.lt.content.ucmIntegration.metadata.CourseTagName = xOSL_Tag

The default values are given for each property. The naming of custom metadata can vary depending on individual UCM setup.

To associate metadata with a General Content reference, OSL must have write permission to the General Content. Therefore, you must create a special user that has write permission on all security groups encompassing General Content. This user is named OSL metadata user. The role of this user is named OSL metadata role. See Table 6–2, " Configuring OSL Metadata User" for details:

Table 6–2 Configuring OSL Metadata User

User	Role	Security Groups	Accounts
oslmetadata	OSL metadata role	▪ OSL Documents (RWDA) ▪ Public (RW)	▪ OSL (RWDA) ▪ All accounts (RWDA)

The following properties allow configuring the searchability of General Content based on OSL context.

- osl.lt.content.ucmIntegration. search.FrameworkItemId
- osl.lt.content.ucmIntegration. search.OutcomeStatementId
- osl.lt.content.ucmIntegration. search.CourseTagName

For each property mentioned above, you can set a search substring such as "Metadata-Name <matches> '%1s'". This search substring is used to build the search URL.

6.3.1.4 Configuring OSL Content Storage and Access

OSL content is stored in a security group called OSLDocuments (the OSL Storage Security Group).

1. Log in to Content Server.
2. Click **Administration**.
3. Click **Admin Applets**.
4. Create and configure the OSL content user as specified below:

Table 6–3 Configuring OSL Content User

User	Roles	Security Groups	Accounts
oslcontent	OSLSystemRole	OSLDocuments(RWDA), Public (RW)	OSL/oslcontent/main(RWDA)

6.3.1.5 Configuring Exported Learning Item Content Storage and Access

To configure exported learning item content storage and access, create and configure TeacherGroup as specified in Table 6–4, " Configuring TeacherGroup":

Table 6–4 Configuring TeacherGroup

Roles	Security Groups	Accounts
TeacherGroup	Public(RWD)	Public(RWD)

OID is the security provider for UCM. Therefore you must define the account in OID. For details on configuring OID, see Appendix D and E of the *Oracle Student Learning Implementation Guide*.

Configuring Parameters in OSL

After configuring content storage and access in Oracle UCM, update the OSL configuration file with the input value. The configuration properties include:

- osl.lt.content.ucmIntegration.oslContentDoctype = Application
- osl.lt.content.ucmIntegration.oslContentSecurityGroup = OSLDocuments
- osl.lt.content.ucmIntegration.oslContentUser = oslcontent
- osl.lt.content.ucmIntegration.oslContentMainAccount = OSL/oslcontent/main
- osl.lt.content.ucmIntegration.oslContentAutoDocname = false
- osl.lt.content.ucmIntegration.publishedContentSecurityGroup = Public
- osl.lt.content.ucmIntegration.publishedContentAccount = Public
- osl.lt.content.ucmIntegration.publishedContentProfile = OSLPublic

The default values are given for each property. The naming of users, accounts, security groups, and so on, can vary depending on individual UCM setup.

6.3.2 Content UCM Reference Client Integration

OSL includes a reference implementation of the Content Integration Client Interface. This implementation adds an option to add selected content items to OSL for two scenarios:

- Inserting a General Content reference to rich data
- Inserting a published learning item to a lesson plan

1. Log in to the Content Admin Server.
2. Click **General Configuration**.
3. Add the following new configuration variables to the **Additional Configuration Variables** list.

Table 6–5 List of configuration variables

Variable Name	Variable Value	Usage
CustomWebRoot	http://ipadderss:port	Content Server IP address, port
CustomParentLocation	http://ipadderss:port	LT IP address, port

4. Click **Component Manager**.
5. Install and enable the following custom components available in the <*OSL installation directory*>/LearningTool/ContentIntegration/components folder.
   - OSL_CustomAction.zip
   - OSL_Javascript.zip
   - OSL_LocaleString.zip
6. Restart the Content server.

7

Configuring Oracle Business Intelligence Enterprise Edition

To access the learning tool reports, you must install and configure Oracle Business Intelligence Enterprise Edition (OBIEE). After installation, perform the following configuration steps.

For information about OBIEE 10*g* installation and configuration, see `http://download.oracle.com/docs/cd/E10415_01/doc/nav/portal_booklist.htm`.

For OBIEE 11*g* installation and configuration, follow the document guides available at `http://download.oracle.com/docs/cd/E14571_01/bi.htm`.

7.1 Configuration for OBIEE 10*g*

This section describes the configuration steps for OBIEE 10*g*.

7.1.1 Configuring OBIEE Data Source

Ensure that OBIEE is installed before configuration.

To configure data source in OBIEE 10*g*:

1. Open a command prompt.
2. Create the OSL Data Source using the Oracle Database 11*g* Client by running this command:

   ```
   export ORACLE_HOME=<Your Oracle Client home>
   $ORACLE_HOME/bin/netmgr
   ```

3. Create a new data source under **Oracle Net Configuration** > **Local** > **Service Naming**, according to the data source you use for OSL.

   Remember to test the database connection at the last step.

4. Update the connection pool of the OSL repository to point to the OSL data source:

   a. Return to Windows.

   b. Copy the **`OSL.rpd`** file from the `[OSL Home directory]/LearningTool/StudentReporting` directory to your Windows file system.

   c. Open the Administration Tool by selecting **Start** > **All Programs** > **Oracle Business Intelligence** > **Administration**.

   d. To open a repository for editing in an offline mode:

i) Verify that the connection pool parameters for your data source **OSL.rpd** are correct.
ii) Select **File** > **Open** > **Offline**.
iii) Enter OBIEE Administrator account password.
iv) Click **Open**. The repository layers appear.

e. Expand the **OSLDataSource** database object.

f. Right-click the **Connection Pool** object and select **Properties**.

g. Ensure that the data items listed in Table 7–1, " Data Items" are accurate.

Table 7–1 Data Items

Object	Description
Call Interface	The call interface is the application program interface (API) used to access the data source. Use OCI for Oracle Database 10*g*/11*g*.
Data Source Name	The data source name is the name that you configured to connect to the database. The data source name corresponds to the TNS Service Name.
Shared logon and User name	Select **Shared logon**, and enter the user name and password.

h. Click **OK**.

This step completes the OBIEE data source configuration. All changes are saved in **OSL.rpd**.

i. When prompted to verify the password, enter the password of the OBIEE data source.

j. Click **OK**.

7.1.2 Configuring OBIEE for OID Authentication

You can control user access to OBIEE by the OID instance. Access control allows users to log in to OBIEE using their OID accounts.

In the OBIEE Security Manager, update the details of the OID instance **LDAP_R3** used for OSL.

For the **User name attribute type** field under the **Advanced** tab of the LDAP server configuration, select **Automatically generated**.

All changes are saved in **OSL.rpd**.

7.1.3 Setting Administrator Password for Student Reporting

The administrator can configure Student Reporting settings. Secure the administrator user account is with a strong password.

In the **OBIEE Security Manager**, update the password of the administrator user.

7.1.4 Importing OSL Repository into OBIEE

To import OSL Repository into OBIEE:

1. Copy the configured **`OSL.rpd`** repository file from your Windows file system to the OBIEE folder on the Linux server: `<Installation drive>/OracleBI/server/Repository`.

   > **Note:** Here <*InstallDrive*> refers to the root directory of your OBIEE installation.

2. Update the `<InstallDrive>/OracleBI/server/Config/NQSConfig.ini` file with this entry:

   ```
   Star=OSL.rpd, DEFAULT;
   ```

3. Unzip the `OSLCatalog.zip` file from the `<OSL home directory>/LearningTool/StudentReporting` folder.

4. Copy the OSL catalog folder from `<OSL home directory>/LearningTool/StudentReporting` to the OBIEE folder

   `<InstallDrive>/OracleBIData/web/catalog`.

5. Update the

   `<Install drive>/OracleBIData/web/config/instanceconfig.xml` file

   with this entry:

   ```
   <Catalog Path><Install
   Drive>/OracleBIData/web/catalog/OSLCatalog</CatalogPath>
   ```

7.1.5 Importing Error Messages into OBIEE

To import error messages into OBIEE, copy the `OSL_error_messages.xml` file from `<OSLHome>/LearningTool/StudentReporting/` to `OracleBI/web/msgdb/customMessages` folder.

7.1.6 Configuring OBIEE

To configure OBIEE:

1. Disable the page options from the dashboard.

   In the `OracleBI/web/msgdb/messages/dashboardtemplates.xml` file, add **`style="display:none"`** for tag WebMessage named **`"kuiPersonalizeLink"`**. Refer to below example:

   ```
   <WebMessage name="kuiPersonalizeLink">
   <HTML><span class="minibuttonOn" style="display:none">
   <a href="javascript:void(null)" onclick="return
   NQWPopupMenu(event,&#39;idPersonalizationMenu&#39;,null,&#39;top&#39;)">&amp;nb
   sp;
   <sawm:messageRef name="kmsgDashboardPageOptionsMenu"/>&amp;nbsp;
   <img src="fmap:Views/sortdesc.gif" border="none"/>&amp;nbsp;</a></span><br/>
   </HTML>
   </WebMessage>
   ```

2. Disable the top menu from dashboard.

   In the `OracleBI/web/msgdb/messages/dashboardtemplates.xml` file, add **`style="display:none"`** for tag Webmessage named **`"kuiDashboardMainBar"`** and **`"kuiDashboardBanner"`**.

Refer to following example:

```
<WebMessage name="kuiDashboardMainBar" translate="no"><HTML>
<table class="PortalBottomTable" width="100%" border="0" cellspacing="0"
style="display:none">
<tr><td><sawm:choose><sawm:when name="dashboardDesc"><div class="PortalName"
title="@{dashboardLongName}@{dashboardDesc}">
<sawm:param name="dashboardName"/></div></sawm:when><sawm:otherwise><div
class="PortalName" title="@{dashboardLongName}">
<sawm:param name="dashboardName"/></div></sawm:otherwise></sawm:choose></td>
<td class="PortalLinks"><table class="WelcomeTextTable" align="right"><tr><td
class="WelcomeTextCell">
<sawm:param name="welcomeText"/></td><td><sawm:messageRef
name="kuiMainBarActionsTable">
<sawm:setParam name="target">_self</sawm:setParam><sawm:setParam
name="classPrefix">DashBar</sawm:setParam></sawm:messageRef>
</td></tr></table></td></tr></table>
<sawm:messageRef name="kuiMainBarActionsMenus"><sawm:setParam name="target">_
self
</sawm:setParam><sawm:setParam name="classPrefix">DashBar</sawm:setParam>
<sawm:setParam
name="proxyStartPage">dashboard</sawm:setParam></sawm:messageRef>
</HTML></WebMessage>

<WebMessage name="kuiDashboardBanner" translate="no">
<!-- Param bannerHtml --><!-- Param dashboardsURL -->
<HTML><table class="PortalBanner" width="100%" border="0" cellspacing="0"
style="display:none">
<tr><td class="PortalLogo"><a href="@{dashboardsURL}"><img
class="PortalLogoImage" border="0" src="fmap:Portal/PortalLogo.gif"/>
</a></td><td class="PortalTop" style="vertical-align:top"><sawm:param
name="bannerHtml"/></td></tr></table>
<sawm:messageRef name="kuiDashboardMainBar"><sawm:setParam
name="product">dashboard</sawm:setParam></sawm:messageRef>
</HTML></WebMessage>
```

3. Disable the PDF print from dashboard.

   In the `OracleBI/web/msgdb/messages/controlmessages.xml` file, remove or comment the following message:

```
<sawm:if name="enablePDF">
<a class="NQWMenuItem" name="pdf" href="javascript:void(null)" onclick="return
PortalPrint(&#39;@{pdfURL}[javaScriptString]&#39;,@{bNewWindow});">
<sawm:messageRef name="kmsgDashboardPrintPDF"/></a></sawm:if>
```

4. Configure the refresh time.

   In the `OracleBIData/web/config/instanceconfig.xml` file, add the following message before `</ServerInstance` :

```
<CacheMaxExpireMinutes>1</CacheMaxExpireMinutes>
<CacheMinExpireMinutes>1</CacheMinExpireMinutes>
<CacheMinUserExpireMinutes>1</CacheMinUserExpireMinutes>
```

5. Disable the cache.

   In the `OracleBI/server/Config/NQSConfig.INI` file, set `ENABLE` to `NO`, like the following message:

```
[ CACHE ]
ENABLE=NO;
```

6. Configure the Oracle Client for OBIEE (Linux version).

   In the `OracleBI/setup/user.sh` file, find the correct operating system and Oracle version, like the following message. Then specify the correct **`ORACLE_HOME`**.

   ```
   ###############################################################
   # Linux: Oracle BI 32 bit mode
   ################################################################
   #set +u

   # Oracle Parameters
   #---------------------------
   # Make sure that Oracle DB 32 bit Client is installed
   ORACLE_HOME= <oracle home path>
   export ORACLE_HOME
   TNS_ADMIN=$ORACLE_HOME/network/admin
   export TNS_ADMIN
   PATH=$ORACLE_HOME/bin:/opt/bin:$PATH
   export PATH
   LD_LIBRARY_PATH=$ORACLE_HOME/lib:$LD_LIBRARY_PATH
   export LD_LIBRARY_PATH
   ```

7. Deploy the `OracleBI\web\analytics.ear` file to the WebLogic domain.

   If the OBIEE and WebLogic are not on identical computers, update the `analytics.ear/analytics.war/WEB-INF/web.xml` file. Set the OBIEE Server IP as the localhost.

   ```
   <init-param>
   <param-name>oracle.bi.presentation.sawserver.Host</param-name>
   <param-value>localhost</param-value>
   </init-param>
   ```

7.2 Configuration for OBIEE 11*g*

This section describes the configuration steps for OBIEE 11*g*.

7.2.1 Configuring the Data Source

To configure the data source in OBIEE 11*g* for OSL, perform the following steps.

1. Switch to Windows.
2. Copy `OSL.rpd` from the **[OSL home] > LearningTool > StudentReporting > obiee11g** to your Windows file system.
3. Open the Administration Tool by selecting **Start > All Programs > Oracle Business Intelligence > BI Administration**.

   You can open a repository for editing in offline mode.
4. Verify that the connection pool parameters for the data source `OSL.rpd` are correct.

   a. Select **File** > **Open** > **Offline**.

   b. Enter OBIEE the repository password.

   c. Click **Open**.

      The repository layers appear.

Note: The default OSL repository password is `welcome1`.

5. Expand the database object **OSLDataSource**.
   - a. Right-click the **Connection Pool** object and select **Properties**.
   - b. Ensure that the data items are accurate as shown in Table 7–2, " OSLDataSource Data".

Table 7–2 OSLDataSource Data

Object	Description
Call Interface	The call interface is the application program interface (API) that you use to access the data source. Use OCI for Oracle Database 10g and 11g.
Data Source Name	The data source name is the name that you configured to connect to the database. This name corresponds to the TNS Service Name.
Shared logon and User name	Select the **Shared logon** check box, and enter the correct user and password.

6. Click OK.
7. When prompted to verify the password, enter the database password of OBIEE Data Source.
8. Click **OK**.
9. Save the repository.

7.2.2 Configuring Security

Perform the following steps to configure security for OBIEE 11*g* configuration.

1. Configure the Repository OID.
   - a. In the OBIEE, update the details of the OID instance LDAP_R3 used for OSL.
   - b. Launch the security manager using the **Manage** > **Identity** option.
   - c. Select **automatically generated**.
   - d. Save the repository file.
2. Configure security in Enterprise Manager.

   To configure the authentication provider and application role to system group mapping, perform the following steps:

   - a. Log in to the Fusion Middleware Enterprise Manager.
   - b. Navigate to **Business Intelligence** > **Core Application**.
   - c. On the **Security** tab, click **Go to the Weblogic Server Administrator Console to configure the Weblogic security realm**.
   - d. Configure the Weblogic security realm by adding the OID provider.

     Use the OID information used to configure in `OSL.rpd` repository file.

The detail steps are available at: `http://download.oracle.com/docs/cd/E21764_01/bi.1111/e10543/privileges.htm#BABCDCFE`.

e. Select the **Security** tab.

f. Click **Configure and Manage Application Roles**.

g. Configure the appropriate mapping.

   Ensure that the mapping is configured as shown in Table 7–3, " Configuration of OBIEE Application Roles".

Table 7–3 Configuration of OBIEE Application Roles

OBIEE Application Role	System Group
Teachers	TeacherGroup
Students	StudentGroup
Parents	ParentGroup

3. Deploy the OSL repository and the catalog into OBIEE.

   a. Log in to the Fusion Middleware Enterprise Manager.

   b. Navigate to **Business Intelligence** > **Core Application**.

   c. Select the deployment tab and the repository.

   d. Unzip the `OSLCatalog.zip` file from the [*OSL Home*] > **LearningTool** > **StudentReporting** > **obiee11g** directory.

   e. Deploy the configured OSL repository file and catalog files.

7.2.3 Configuring OBIEE

Complete the following steps to configure OBIEE.

1. Configure the refresh time.

   In the file **<ORACLE_INSTANCE>/config/OracleBIPresentationServicesComponent/coreapplication_obipsn/instanceconfig.xml**, add the following message at the bottom, before </ServerInstance>:

```
<Cache>

<Query>

<MaxExpireMinutes>-1</MaxExpireMinutes>

<MinExpireMinutes>-1</MinExpireMinutes>

<MinUserExpireMinutes>-1</MinUserExpireMinutes>

</Query>

</Cache>
```

2. Configure to not use cache.

   a. Log in to the Fusion Middleware Enterprise Manager.

   b. Navigate to **Business Intelligence** > **Core Application**.

   c. Navigate to **Capacity Management** > **Performance** tab.

- **d.** Click **Lock and Edit Configuration**.
- **e.** Clear the **Cache Enabled** check box.
- **f.** Click **Apply**.
- **g.** Click **Activate Changes**.
- **h.** Restart the BI Server system component before activating it.

8 Configuring WebLogic Server

This chapter describes the configuration steps in WebLogic Server before OSL deployment.

8.1 Installing ADF Runtime Libraries

To install ADF 11*g* Runtime libraries in the existing WLS instance, see Section 35.6.1, "How to Install the ADF Runtime into an Existing WebLogic Server Using the Oracle Fusion Middleware Application Developer Installer" in the *Oracle Fusion Middleware Fusion Developer's Guide for Oracle Application Development Framework 11g Release 1 (11.1.1.5.0)* at:

`http://download.oracle.com/docs/cd/E21764_01/web.1111/b31974/toc.htm`.

8.2 Configuring ADF Domain with Oracle Enterprise Manager

To create a domain or extend the existing domain in the WLS instance for ADF applications, see Section 35.7, "Creating and Extending WebLogic Domains" in the Oracle Fusion Middleware Fusion Developer's Guide for *Oracle Application Development Framework 11g Release 1 (11.1.1.5.0)* at

`http://download.oracle.com/docs/cd/E21764_01/web.1111/b31974/toc.htm`.

When you generate or extend a domain, ensure that the domain is configured to support **Oracle Enterprise Manager**, **Oracle JRF, and Oracle WSM Policy Manager**.

> **Note:** For Oracle WSM Policy Manager, the schema DEV_MDS must exist in the Learning Tool database. Run the Oracle Fusion Middleware Repository Creation Utility 11*g* against the Learning Tool database. Ensure that **Metadata Service** under **AS Common Schemas** is selected.

8.3 Configuring OSL LT Data Source

To configure the OSL Learning Tool data source:

1. Open the **WLS Administration Console**:

   ```
   http://<WLS host name>:7001/console
   ```

2. Log in to the WLS console using an administrator user name and password.

3. Select **JDBC** > **Data Sources** > **New**.
4. Edit the properties as specified in Table 8–1, " Data Source Properties".

Table 8–1 Data Source Properties

Attribute	Value	Meaning
Name	`oslDS`	Name of the data source
JNDI Name	`oslDS`	JNDI name of the data source
Database Type	`Oracle`	
Database Driver	`Oracle Driver (Thin XA) for Instance Connections; Versions:9.0.1,9.2.0,10,11`	JDBC driver used to connect to the database
Database Name	`<SID>`	Oracle database SID or service name
Host Name	`<Database Hostname>`	
Port	`<Default: 1521>`	Database port
Database User Name	`<enter username>`	OSL database schema name
Password	`<password>`	Password for OSL schema
Confirm Password	`<password>`	

5. Select **Next**.
6. Select **Test Configuration** to verify that the database connection parameters are set correctly.
7. Select the server targets for the data source from the list of available servers in the WLS domain on which to deploy the OSL LT Admin and OSL LT applications.
8. Click **Finish**.

8.4 Storing Credentials in OSL Credential Store

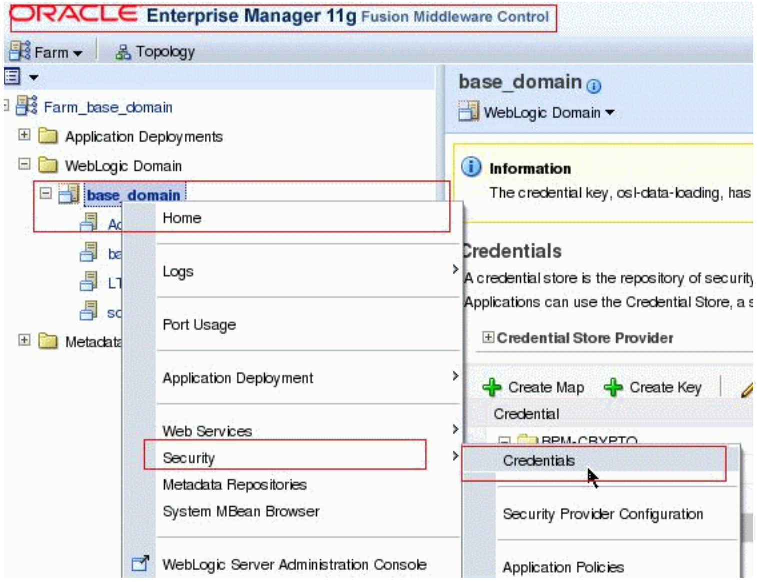
The OSL credential map contains credentials for servers to which the OSL Learning Tool must authenticate. The servers include the remote JMS server for the Event publishing service (if remote Resources are used) and custom Content Integration. This section describes how to create the OSL credential map and store credentials in the OSL credential map.

8.4.1 Creating a Credential Map

To create a credential map:

1. Open the **Oracle Enterprise Manager 11*g* Fusion Middleware Control**.
2. From the navigation pane, expand **WebLogic Domain**.
3. Right-click the domain and click **Security** > **Credentials**.
4. On the **Credentials** page, click **Create Map** and name it **OSL**.
5. Click **OK**.

Figure 8–1 Creating a Credential Map



8.4.2 Storing Credentials for Content Integration

If you are using the default content integration with the default proxy type (Internal), ignore this section.

If you chose the WS proxy type or you are using a custom content integration, the OSL Learning Tool must pass authentication information to the content integration web service. You must specify the credentials of the JMS server in the OSL credential map.

8.4.2.1 Creating the JMS Server Credential Key

To create a credential key:

1. Click the **OSL Map** created in Section 8.4.1, "Creating a Credential Map".
2. Click **Create Key**.
3. Enter the following details:
   - Map: OSL
   - Key: osl.content.credentials
   - Type: Password
   - Username: name of the user that can invoke the content integration web service. In the default content integration, this user is named **contentintegration** (as specified in Section 5.4, "Assigning Content Integration User").
   - Password: password of the above user

8.4.2.2 Granting Codebase Permission to the Credential Store

The OSL Learning Tool codebase requires permission to access the credential map mentioned in Section 8.4.2.1, "Creating the JMS Server Credential Key".

Perform the steps in Section 8.4.2.2, "Granting Codebase Permission to the Credential Store".

8.5 Configuring OID as Security Provider

Configure the OID instance as the security provider for the WLS instance on which OSL is deployed so that OID users can access OSL.

To define a security provider for WLS:

1. Open the **WLS Administration Console**:

   `http://<WLSHostName>:port/console`

2. Log in to the console using an administrator user name and password.
3. Select **Security Realms** > **myrealm** (default) > **Providers** (tab).
4. In the **Authentication Providers** table, select **New**.
5. Enter a name for the authentication provider in the **Name** field, for example **`OSL_OID`**.
6. Choose **OracleInternetDirectoryAuthenticator** as from the **Type** list.
7. Click **OK**.
8. Select the new authentication provider instance on the **Providers** tab to navigate to its configuration page.
9. Select the **Provider Specific** tab under the **Configuration** tab.
10. Edit the properties in the **Provider Specific** configuration as described in Table 8–2, " Provider Specific Properties".

Table 8–2 Provider Specific Properties

Attribute	Value	Meaning
Host	*`<OID hostname>`*	
Port	`3060`	Default non-SSL OID port.
Principal	`cn=`**`orcladmin`**	Administrator account to connect to OID.
Credential	<***`orcladmin`*** *`password`*>	Password for OID administrator account.
Confirm Credential	<***`orcladmin`*** *`password`*>	
User Base DN	*`<OID User Search Base>`*	Value of the **User Search Base** attribute in OID. You can find this value on the OID administration page. The format of the value is: `cn=users,dc=...`
Use Retrieved User Name as Principal	`Check`	Specifies whether the user name retrieved from OID use as the Principal in the Subject.
Group Base DN	*`<OID Group Search Base>`*	Value of the **Group Search Base** attribute in OID. You can find this value on the OID administration page. The format of the value is: `cn=Groups,dc=`...
Propagate Cause for Login Exception	`Check`	Propagates OID exceptions to WLS to show in the console and logs.

11. Click **Save**.
12. Restart the WLS instance.
13. Log in to the WLS console and select **Security Realms** > **myrealm** (default) > **Users and Groups** (tab).

    Ensure that the OID users and groups are listed under **Users and Groups**.
14. Change the **Control Flag** attribute of the security provider so that OSL users must authenticate only against OID:
    a. Select **Security Realms** > **myrealm** (default) > **Providers** (tab) > [name of the security provider] > **Configuration** (tab) > **Common** (tab).
    b. Set **Control Flag** to **Sufficient**.
15. Reorder the security provider to be the first authentication provider.
16. Restart the WLS instance.

9 Deploying OSL Learning Tool Admin and OSL Learning Tool

This chapter describes the steps in preparing and deploying OSL Learning Tool Admin and OSL Learning Tool to the WebLogic Server.

9.1 Customizing OSL Settings

Customize the OSL Learning Tool before deploying it to the WebLogic Server. The customization capabilities include:

- **Labels:** Updating the label text in the user interfaces of the OSL Learning Tool and OSL Learning Tool Admin.
- **Icon set:** Replacing default icons in the user interfaces of the OSL Learning Tool and OSL Learning Tool Admin.
- **Background images**: Replacing or adding background images of the OSL Learning Tool
- **Security roles mapping:** Updating the mapping of LDAP groups to OSL application roles as mentioned in **Scenario 1** of Section 5.1, "Creating Groups in OID". You can ignore this step if your LDAP groups follow the default naming convention described in **Scenario 2** of Section 5.1, "Creating Groups in OID".
- **Oracle UCM integration configuration:** Updating properties for integration with Oracle UCM as discussed in Chapter 6, "Configuring Oracle Universal Content Management Default Integration".

9.1.1 Modifying Labels

Customizable label sets for OSL Learning Tool are located in the `[OSL home directory]/LearningTool/Configuration/LearningTool/Labels` folder. Customizable label sets for OSL Learning Tool Admin are located in the `[OSL home directory]/LearningTool/Configuration/Admin/Labels` folder. Each file in these two folders is a resource bundle file that consists of key-value pairs. You can modify the content of the value fields.

WARNING: Modify only the content of the value fields. Do not update the key fields or remove any key-value pairs.

9.1.2 Modifying Icons

Customizable icon sets for the OSL Learning Tool are located in the `[OSL home directory]/LearningTool/Configuration/LearningTool/Images` folder. Customizable icon sets for the OSL Learning Tool Admin `[OSL home directory]/LearningTool/Configuration/Admin/Images` folder. You can replace image files in these two folders. Ensure that the file names and directory structures remain the same.

9.1.3 Modifying Background Images

You can add or change the background images that are available in User Preferences.

To add or change background images:

1. Place the image and its corresponding thumbnail image in the `[OSL home directory]/LearningTool/Common/background` folder.
2. For each image you add or change, use the LT Configurator to update the following files:
   - **BackgroundImagesRes.properties**—This file contains the location of the background image.

     Make sure the thumbnail image file name follows the format:

     thumbnail_file_name-thumbnail.*extension*

     For example, if you have apple.jpg, the thumbnail file name should be apple-thumbnail.jpg.
   - **BackgroundTitle.properties**—This file contains the name of the background image. The name will appear in User Preferences.

9.1.4 Updating Security Role Mappings

This step is required only if the group names used in the OID or LDAP server are different from the OSL default values described in Section 5.1, "Creating Groups in OID". If you create LDAP groups using **Scenario 2**, you can ignore this step.

9.1.4.1 Updating ADF Security Role Mappings

The OSL Learning Tool and OSL Learning Tool Admin use ADF Security to authorize users to perform different actions based on the user roles. These roles must be mapped from the LDAP Groups created in Section 5.1, "Creating Groups in OID".

Table 9–1 shows the default mappings between LDAP groups and OSL roles.

Table 9–1 Default Mappings between LDAP Groups and OSL Roles

OSL Role	OID Group Name
`osl-student`	`StudentGroup`
`osl-teacher`	`TeacherGroup`
`osl-parent`	`ParentGroup`
`osl-department-admin`	`DeptCurrAdminGroup`
`osl-department-curr-admin`	`DeptCurrAdminGroup`
`osl-school-admin`	`SchAdminGroup`
`osl-school-curr-admin`	`SchCurrAdminGroup`

Table 9–1 (Cont.) Default Mappings between LDAP Groups and OSL Roles

OSL Role	OID Group Name
osl-dataloading	DataLoadingGroup
osl-content	ContentIntegrationGroup

If you use existing LDAP groups instead of the groups listed above, replace the default group names in the `[OSL home directory]/LearningTool/Configuration/LearningTool/DeploymentDescriptors/jazn-data.xml` file.

For example, if the OID group for the `osl-school-admin` role is named `SchAdminPrinciples` instead of the default `SchAdminGroup`, then replace the `SchAdminGroup` entry inside `jazn-data.xml` with `SchAdminPrincipals`.

9.1.4.2 Updating EJB Security Role Mappings

Table 9–2 lists the default mappings between J2EE security roles of OSL Learning Tool and LDAP groups. If your LDAP groups are different from the values in the LDAP Group Name column, then update the `<principal-name>` values in the `[OSL home directory]/LearningTool/Configuration/LearningTool/DeploymentDescriptors/weblogic-ejb-jar.xml` file accordingly.

Table 9–2 List of EJB Roles Mapped to the LDAP Groups

EJB Role	OID Group Name
osl-student	StudentGroup
osl-teacher	TeacherGroup
osl-parent	ParentGroup
osl-dataloading	DataLoadingGroup
osl-content	ContentIntegrationGroup
osl-department-admin	DeptCurrAdminGroup
osl-department-curr-admin	DeptCurrAdminGroup
osl-school-admin	SchAdminGroup
osl-school-curr-admin	SchCurrAdminGroup

9.1.5 Updating Content Integration Configuration

You can configure the settings for default integration with **Oracle UCM** in the `[OSL home directory]/LearningTool/Configuration/LearningTool/DeploymentDescriptors/osl_configuration.properties` file.

The following mandatory properties are available in the properties file. These properties have no default values.

Table 9–3 List of Mandatory Properties

Property Name	Description
osl.lt.web.contentAccess.homeURL	Oracle UCM server URL. In a default setup of Oracle UCM, this URL is: `http://<host>:<port>/idc`
osl.lt.web.contentAccess.attachedContentDelegateBaseURL	You can delegate the rendition of content attachment in OSL to the Content Access Web servlet. See osl.lt.web.contentAccess.delegateAttachedContentAccess. Define the URL to the Content Access Web servlet. In the default setup of OSL, this URL is: `http://<host>:<port>/ContentAccessWeb/contentdelegateservlet,` where `<host>:<port>` refers to the server to which Learning Tool is deployed.
osl.lt.content.ucmIntegration.ridcURI	RIDC URL of the Oracle UCM server. This value is `idc://<host>:<port>` or `idcs://<host>:<port>`. For related information, see *Oracle® Universal Content Management Remote Intradoc Client (RIDC) Developer Guide* at `http://download.oracle.com/docs/cd/E10316_01/ContentIntegration/ridc/ridc-developer-guide.pdf`.
osl.lt.web.contentAccess.attachedContentAccessBaseURL	The rendition of content attachment in OSL is done by the Content Access servlet. Define the URL to the Content Access servlet. In the default setup of OSL, this URL is: `http://<host>:<port>/LTWeb/contentaccessservlet` where `<host>:<port>` refers to the server to which the Learning Tool is deployed.
osl.lt.content.ucmIntegration.oslContentDoctype	UCM document type for OSL content.
osl.lt.content.ucmIntegration.update.URL	URL of the UCM update form. In a default setup of Oracle UCM, the URL is: `http://<host>:<port>/<idc_name>/idcplg?IdcService=GET_UPDATE_FORM`

Table 9–3 (Cont.) List of Mandatory Properties

Property Name	Description
osl.lt.content.ucmIntegration.search.URL	URL of the UCM search form. In a default setup of Oracle UCM, the URL is: `http://<host>:<port>/<idc_name>/idcplg?IdcService=GET_SEARCH_RESULTS`

The following mandatory properties define the Oracle UCM server settings. The default values are based on a standard Oracle UCM installation with no customization:

Table 9–4 List of Mandatory Properties for Oracle UCM Server

Property Name	Description	Default Value
osl.lt.content.ucmIntegration.search.operatorAND	AND operator of the UCM core search service.	<AND>
osl.lt.content.ucmIntegration.search.operatorOR	OR operator of the UCM core search service.	<OR>
osl.lt.content.ucmIntegration.search.queryParam	Query text parameter of the UCM core search service.	QueryText
osl.lt.content.ucmIntegration.search.ImageFilter	Search clause for images.	dFormat <SubString> ’image’
osl.lt.content.ucmIntegration.search.LearningItemFilter	Search clause for an exported learning items.	dExtension <matches> ’osl’
osl.lt.content.ucmIntegration.metadataSeparator	Separator for metadata values within a metadata field.	,
osl.lt.content.ucmIntegration.oslContentAutoDocname	Defines whether **DocName** is auto-generated or must be specified by clients during check-in. Valid values: **true** (if auto-generated) and **false** (if not auto-generated).	false

The following mandatory properties are set during the configuration of content storage and access. Instructions in Chapter 6, "Configuring Oracle Universal Content Management Default Integration" are based on the default values of these properties. If you used different naming conventions during content management integration, then update the corresponding values here:

Table 9–5 List of Mandatory Properties for Configuration of Content Storage and Access

Property Name	Description	Default Value
osl.lt.content.ucmIntegration.generalContentMetadataUser	User name of the special user that default content integration uses when associating metadata to general content.	oslmetadata
osl.lt.content.ucmIntegration.oslContentSecurityGroup	Security group holding OSL content and exported learning items.	OSLDocuments

Table 9–5 (Cont.) List of Mandatory Properties for Configuration of Content Storage and Access

Property Name	Description	Default Value
osl.lt.content.ucmIntegration.oslContentUser	User name of the special user that the default content integration uses when accessing OSL content.	oslcontent
osl.lt.content.ucmIntegration.oslContentMainAccount	Account of the permanent space for OSL content.	OSL/oslcontent/main
osl.lt.content.ucmIntegration.publishedContentSecurityGroup	Security group for exported learning items.	Public
osl.lt.content.ucmIntegration.publishedContentAccount	Account for the exported learning items.	Public
osl.lt.content.ucmIntegration.publishedContentProfile	Profile for exported learning items	OSLPublic

The following properties are related to the Web service URI:

Table 9–6 List of Properties Related to Web Service URI

Property Name	Description	Default Value
osl.lt.service.content.contentProxytype	Indicates how content integration communicates with the Learning Tool. The valid values are **Internal** and **WS**. If the value is **WS**, then set the following three properties.	Internal
osl.lt.service.content.wsProxyGeneralContentServiceURL	Service end point of the General Content Service Implementation.	
osl.lt.service.content.wsProxyOSLContentServiceURL	Service end point of the OSL Content Service Implementation.	
osl.lt.service.content.wsProxyPublishServiceURL	Service end point of the Publishing Content Service Implementation.	

9.1.6 Updating OBIEE Integration Configuration

Table 9–7, " Properties for configuring OBIEE integration" describes the properties for configuring OBIEE integration.

Table 9–7 Properties for configuring OBIEE integration

Property Name	Description	Default Value
osl.lt.obiee.integration.protocol	Protocol that talkes to OBIEE. The available values are **http** and **https**.	http
osl.lt.obiee.integration.host	OBIEE server host name or IP address	
osl.lt.obiee.integration.port	OBIEE server port	

You can configure these properties in this file: `[OSL Home directory]/LearningTool/Configuration/LearningTool/DeploymentDescriptors/osl_configuration.properties`.

9.1.7 Updating Logout URL for Learning Tool and Learning Tool Admin

Table 9–8, " Properties for configuring the logout URL for Learning Tool and Learning Tool Admin" describes the properties for configuring the logout URL for Learning Tool and Learning Tool Admin.

Table 9–8 Properties for configuring the logout URL for Learning Tool and Learning Tool Admin

Property Name	Description
osl.lt.logout.url	LearingTool Logout URL
osl.admin.logout.url	LearingTool Admin Logout URL

Note: These properties are useful to customize the logout URL to support features such as SSO logout. If you do not specify values for these properties, the default ADF logout is used.

You can configure these properties in this file: `[OSL Home directory]/LearningTool/Configuration/LearningTool/DeploymentDescriptors/osl_configuration.properties`.

9.1.8 Updating Curriculum Framework Caching Configuration

The following table describes the property for configuring the curriculum framework caching.

Table 9–9 Property for Configuration of Curriculum Framework Caching

Property Name	Description	Default Value
osl.lt.web.enableFrameworkDataCaching	Property to configure to cache the curriculum framework data in the Web layer.	true

9.1.9 Updating JPA Cache Isolation Configuration

The table list the properties to configure JPA cache isolation.

Table 9–10 List of Properties

Property Name	Description	Default Value
osl.lt.model.cache.isolation.enable	Property to configure the JPA cache isolation.	false

9.1.10 Controlling the display of Learning Item Types in Teacher UI

You can control the types of learning items that display or do not display under the **New** button menu on the lesson plan and class plan pages of the Teacher UI. Set the appropriate values in the **osl_learning_item_types.xml** file during OSL installation. This XML file is located in the <*OSL home* *directory*>**/LearningTool/Configuration/LearningTool/DeploymentDescriptors directory**.

Below are the default settings for the **osl_learning_item_types.xml** file:

```
<LearningItemTypes>
<LearningItemType name="Folder" available="Y"/>
<LearningItemType name="Document" available="Y"/>
<Separator/>
<LearningItemType name="Discussion" available="Y"/>
<LearningItemType name="Journal" available="Y"/>
<LearningItemType name="Submission" available="Y"/>
<LearningItemType name="Task" available="Y"/>
<LearningItemType name="Reference" available="Y"/>
</LearningItemTypes>
```

The following changes are supported in **osl_learning_item_types.xml**:

- You can make any LearningItemType unavailable by setting the property named `available` to `N`. The default value is `Y`.

> **Note:** The items marked as `N` are hidden from the **New** button menu. However, the existing learning items of these types (in OSL upgrade scenarios) continue to work in the application. The import and export of such learning items also continues to work.

- You can move the `Separator` tag up or down the list of learning item types. There can be more than one `Separator` tags in the **osl_learning_item_types.xml** file at different places. The `Separator` tags cause a line separator between two learning item types in the **New** button menu on the lesson plan and class plan pages of the Teacher UI.

9.1.11 Customizing the CKEditor toolbar

You can customize your CKEditor toolbar by adding buttons to the toolbar. The customizable CKEditor is in the `[OSL Home directory]/LearningTool/Configuration/LearningTool/ckeditor` directory.

To customize the CKEditor toolbar:

1. Place the new CKEditor plug-in in the <*OSL installation directory*>`/LearningTool/Configuration/LearningTool/ckeditor/plugins` directory.
2. Load the plug-in by modifying the config_default.js in the <*OSL installation directory*>`/LearningTool/Configuration/LearningTool/ckeditor` directory:
   a. Append the plug-in name in **config.extraPlugins**.
   b. Add the plug-in icon name in a proper location in **config.toolbar**.

9.2 Deployment Configuration

The following sections describes the deployment configuration.

9.2.1 Recommended Configuration for OSL Deployment in a WebLogic Cluster

Prior to deploying OSL application in a WebLogic cluster, do the following configuration changes.

1. In `[OSL Home directory]/LearningTool/Configuration/LearningTool/Deployment Descriptors/osl_configuration.properties`, configure the following properties.

Table 9–11 Configure the following properties

Property	Value
osl.lt.model.cache.isolation.enable	true
osl.lt.web.enableFrameworkDataCaching	true

2. In `[OSL Home directory]/LearningTool/Configuration/LearningTool/Deployment Descriptors/persistence.xml`, add the following eclipselink property.

```
<property name="eclipselink.cache.shared.default"
value="false"/>
```

The above configuration disables the shared JPA cache. However, the Framework data is cached at the application level for better performance.

> **Note:** Since the Framework data is cached at the application level in the LT Web, any update to the Framework data through the Administration screens or through Data Loading Services will not be automatically reflected in the LT Web. Hence, with this configuration, OSL LT application must be restarted whenever any change occurs to the Framework data.

9.2.2 Recommended Configuration for OSL Deployment in a Single WebLogic Instance

The out of the box OSL archive has JPA cache and application level cache for Framework data enabled for performance reasons. However, if implementations foresee frequent changes to the Framework through the Administration screens or the Data Loading Services, the following property configuration is recommended.

1. In `[OSL Home directory]/LearningTool/Configuration/LearningTool/Deployment Descriptors/osl_configuration.properties`, configure the following property.

Table 9–12 Configure the following properties

Property	Value
osl.lt.web.enableFrameworkDataCaching	false

This configuration disables the application level Framework cache. Any changes to the Framework data through the Administration screens or through the Data Loading Services will be automatically reflected in the JPA cache and the application does not require a restart.

9.2.3 File Upload Limit

The **web.xml** file in the `[OSL home directory] /LearningTool/Configuration/LearningTool/DeploymentDescriptors` directory contains the following parameters:

- **org.apache.myfaces.trinidad.UPLOAD_MAX_DISK_SPACE**: Used to configure the file upload limit. This parameter sets the default limit at 2,000 KB. You can change the value of this parameter to increase the file upload limit.
- **org.apache.myfaces.trinidad.UPLOAD_TEMP_DIR**: Specifies the default directory named **/tmp/TrinidadUploads/** to store temporary files created during file upload. Ensure that this directory exists in the Learning Tool server and has the necessary permissions to create files. If this directory does not exist, create the directory as root user and assign full permission (777).

9.2.4 Configuring authentication mechanism for non-SSO environment

The OSL **.ear** file is configured to support deployment in an SSO environment (OSSO or OAM) by default. If you want to configure OSL in an SSO environment, you can ignore this step.

To configure OSL in a non-SSO environment for OSL to use form-based authentication, update the *<login-config>* option in the **web.xml** file:

1. Update OSL Learning Tool **web.xml** file located in the **[OSL Home directory]/LearningTool/Configuration/LearningTool/ DeploymentDescriptors** directory as follows:

```
<!--
<login-config>
    <auth-method>CLIENT-CERT</auth-method>
    <realm-name>myRealm</realm-name>
</login-config>
  -->
<login-config>
    <auth-method>FORM</auth-method>
    <form-login-config>
      <form-login-page>/faces/loginView.jspx</form-login-page>
      <form-error-page>/faces/loginErrorView.jspx</form-error-page>
    </form-login-config>
</login-config>
```

2. Update the OSL Learning Tool Admin **web.xml** file located in the **[OSL Home directory]/LearningTool/Configuration/Admin/ DeploymentDescriptors** directory as follows:

```
<!--
<login-config>
    <auth-method>CLIENT-CERT</auth-method>
    <realm-name>myRealm</realm-name>
</login-config>
-->
<login-config>
    <auth-method>FORM</auth-method>
    <form-login-config>
      <form-login-page>/faces/Login.jspx</form-login-page>
      <form-error-page>/faces/LoginError.jspx</form-error-page>
    </form-login-config>
</login-config>
```

9.3 Running the OSL Learning Tool Configurator

You must run the OSL Learning Tool Configurator if you have customized any of the OSL settings. These settings are described in Section 9.1.1, "Modifying Labels" to Section 9.1, "Customizing OSL Settings". The OSL Learning Tool Configurator is delivered as an ANT script to repackage the OSLLearningToolApp.ear with a customized file set.

1. Update the `[OSL home directory]/LearningTool/Scripts/build.properties` file as described in Table 9–13.

Table 9–13 OSL LT Configurator Properties

Property	Default Value	Description
lt.ear.path	..	Location of `OSLLearningToolApp.ear`
lt.label.path	../Configuration/LearningTool/Labels	Location of the folder that contains the customized labels and texts for the OSL Learning Tool
lt.image.path	../Configuration/LearningTool/Images	Location of the folder that contains the customized icons and images for the OSL Learning Tool
lt.dd.path	../Configuration/LearningTool/DeploymentDescriptors	Location of the folder that contains the customized deployment descriptors for the OSL Learning Tool
ltadmin.label.path	../Configuration/Admin/Labels	Location of the folder that contains the customized labels for the OSL Learning Tool Admin
ltadmin.image.path	../Configuration/Admin/Images	Location of the folder that contains the customized icons andimages for the OSL Learning Tool Admin
ltadmin.dd.path	../Configuration/Admin/DeploymentDescriptors	Location of the folder that contains the customized deployment descriptors for the OSL Learning Tool Admin
lt.resource.path	../Configuration/Common/resources	Location of the folder that contains the BackgroundImagesRes.properties and BackgroundTitle.properties files
lt.resource.background.path	../Configuration/Common/background	Location of the folder that contains the background images

2. Run the OSL Learning Tool Configurator using ANT:

```
[~]#cd $DOMAIN_HOME/bin
[bin]#source./setDomainEnv.sh
[bin]#cd [OSL Home directory]/LearningTool/Scripts
[Scripts]#ant repackageLT
```

The `OSLLearningToolApp.ear` located in the `[OSL home directory]/LearningTool` folder is updated with the new configuration described in Section 9.1, "Customizing OSL Settings" and Section 9.2, "Deployment Configuration".

9.4 Running the Deployment Script

You can deploy the OSL Learning Tool and OSL Learning Tool Admin using the ANT script.

To deploy the OSL Learning Tool and OSL Learning Tool Admin to the WebLogic Server:

1. Open the `[OSL home directory]/LearningTool/Scripts/build.properties` file.
2. Modify the configuration options to suit your environment.

   Table 9–14 describes the list of properties to set.

Table 9–14 Deployment Properties

Property	Description	Remark
lt.weblogic.host	Host name or IP address of the WebLogic Server to which to deploy the OSL Learning Tool.	
lt.weblogic.server	Name of the WebLogic Server to which to deploy the OSL Learning Tool.	
lt.weblogic.admin.port	Port of the WebLogic Admin Server of the domain in which lt.weblogic.server is configured.	The default value in the WebLogic installation is 7001.
lt.ear.path	Location of the OSLLearningToolApp.ear file. By default, the OSLLearningToolApp.ear file is located in the parent folder of the folder that contains this file.	You do not have to change the default value when installing from the installation directory.

3. Run the deployment using ANT:

```
[~]#cd $DOMAIN_HOME/bin
[bin]#source ./setDomainEnv.sh
[bin]#cd [OSL Home directory]/LearningTool/Scripts
[Scripts]#ant deployLT
```

Note: When deploying the Learning Tool using the ANT script for the first time, if the security policies do not migrate into the **$DOMAIN_HOME/config/fmwconfig/system-jazn-data.xml** file, do the following:

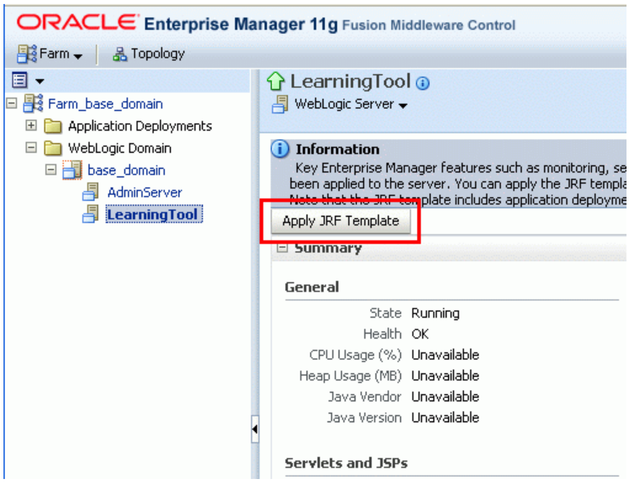
1. After your OSL-specific WebLogic managed server is created:

    a. Go to FMW Control using this URL - http://<WLS Server>:7001/em.

    b. Select your managed server in the left menu (under the WebLogic domain).

    c. Click the **Apply JRF** button that appears on the middle area in this screen.

    Figure 9–1 Apply JRF button

    Key Enterprise Manager features such as monitoring, se
    been applied to the server. You can apply the JRF templa
    Note that the JRF template includes application deployme

    State Running
    Health OK
    CPU Usage (%) Unavailable
    Heap Usage (MB) Unavailable
    Java Vendor Unavailable
    Java Version Unavailable

    If you cannot see this button, then probably it has been applied and no action is needed.

2. Ensure that the OSL-specific WebLogic managed server is disabled, and the WebLogic Administration Server is running.

9.5 Disabling WSDL Files Access in WebLogic Server

This configuration is applicable to the OSL deployment in WebLogic Server 10.3.3.

To disable access of WSDL files in WebLogic:

1. Open the **Oracle WebLogic Administration Console**:

    Start the Oracle WebLogic Server. For more information, see "Start and Stop servers" in the Oracle WebLogic Administration Console Online Help.

2. Open a supported Web browser and navigate to the following URL:

    ```
    http://<WLS host name>:<port>/console
    ```

3. Expand the Web services list.
4. Select any Web service.
5. Click the **Configuration** tab.

6. Clear the **View Dynamic WSDL Enabled** check box.
7. Click **Save**.

   The deployment plan is created.
8. Complete steps 1-7 for all Web services.
9. Access the WSDL URL.

   The WSDL does not display.

10

Configuring OSSO Solution

This chapter provides step-by-step instructions for configuring OSSO as the single sign-on solution for OSL. You can find complete explanation of the OSSO Solution in "Chapter 10 Configuring Single Sign-On in Oracle Fusion Middleware" in the *Oracle® Fusion Middleware Security Guide 11g Release 1 (11.1.1)* at

`http://download.oracle.com/docs/cd/E12839_01/core.1111/e10043/toc.htm`

10.1 Installing Oracle Single Sign-On and Oracle Delegated Administration Services

There are no 11*g* Release 1 (11.1.1) versions of Oracle Single Sign-On and Oracle Delegated Administration Services. However, both Oracle Single Sign-On and Oracle Delegated Administration Services Release 10*g* (10.1.4.3.0) are certified for use with Oracle Internet Directory 11*g* Release 1 (11.1.1).

You can find related information in "Chapter 10 Installing Oracle Single Sign-On and Oracle Delegated Administration Services Against Oracle Internet Directory" in the *Oracle® Fusion Middleware Installation Guide for Oracle Identity Management 11g Release 1 (11.1.1)* at

`http://download.oracle.com/docs/cd/E12839_01/install.htm`

10.2 Configuring SSO for Learning Tool

To configure SSO for Learning Tool, perform the steps in the subsequent sections.

10.2.1 Installing HTTP Server

Install web server to be used as a front end to the Oracle WebLogic Server. In this guide, we use Oracle HTTP Server (OHS) 11*g*, which is available after the installation of Web Tier Utilities 11.1.1.2.0.

10.2.2 Configuring mod_wl_ohs

If you select the option “Associate Selected Components with WebLogic Domain” during the installation of Web Tier Utilities, you are able to manage the web server using Enterprise Manager (EM).

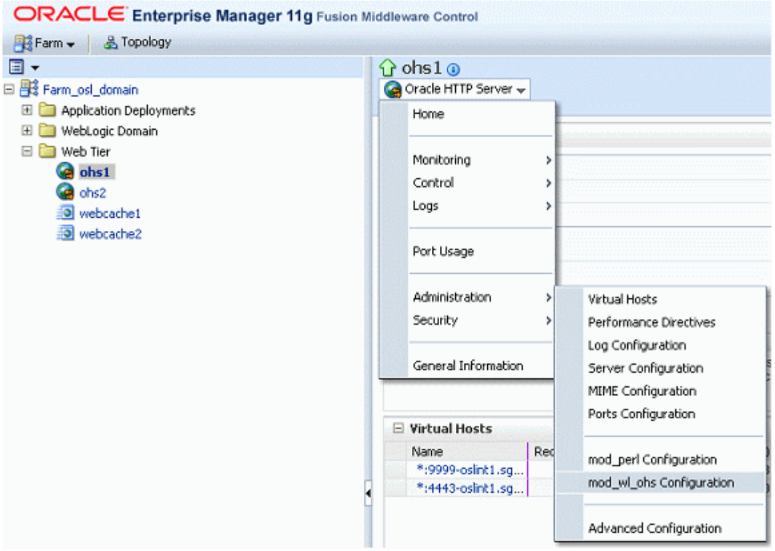
This section demonstrates the configuration of **mod_wl_ohs** using EM. However, it is also possible to do the same configuration by manually editing the configuration files.

To configure **mod_wl_ohs** from EM, perform the following:

1. Select the OHS instance on the left panel.

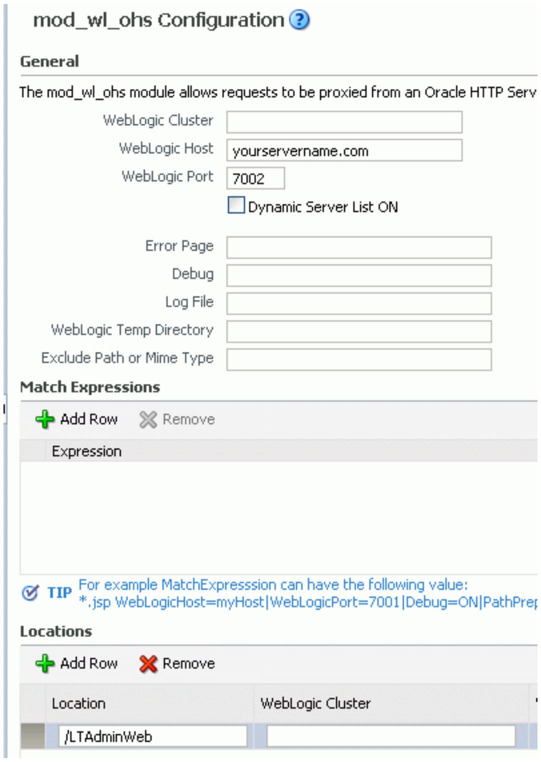
2. Select **Oracle HTTP Server** > **Administration** > **mod_wl_ohs Configuration** on the right panel.

Figure 10–1 Configuring mod_wl_ohs



3. Enter the value for WebLogic Host, WebLogic Port, and Locations. Figure 10–2 shows a sample setup for Learning Tool Admin and Learning Tool.

Figure 10–2 Sample mod_wl_ohs configuration for LT Admin



mod_wl_ohs Configuration

General

The mod_wl_ohs module allows requests to be proxied from an Oracle HTTP Serv

WebLogic Cluster	
WebLogic Host	yourservername.com
WebLogic Port	7002
	□ Dynamic Server List ON
Error Page	
Debug	
Log File	
WebLogic Temp Directory	
Exclude Path or Mime Type	

Match Expressions

Expression

TIP For example MatchExpresssion can have the following value:
*.jsp WebLogicHost=myHost|WebLogicPort=7001|Debug=ON|PathPref

Locations

Location	WebLogic Cluster
/LTAdminWeb	

This configuration will effectively be added to the **mod_wl_ohs.conf** file of this OHS instance. You can also manually modify this file without using the EM.

Note: If you install Web Tier Utilities, you can locate **mod_wl_ohs.conf** file at:

For example: `<MIDDLEWARE_HOME>/Oracle_WT1/instances/instance1/config/OHS/ohs1/`

For example:

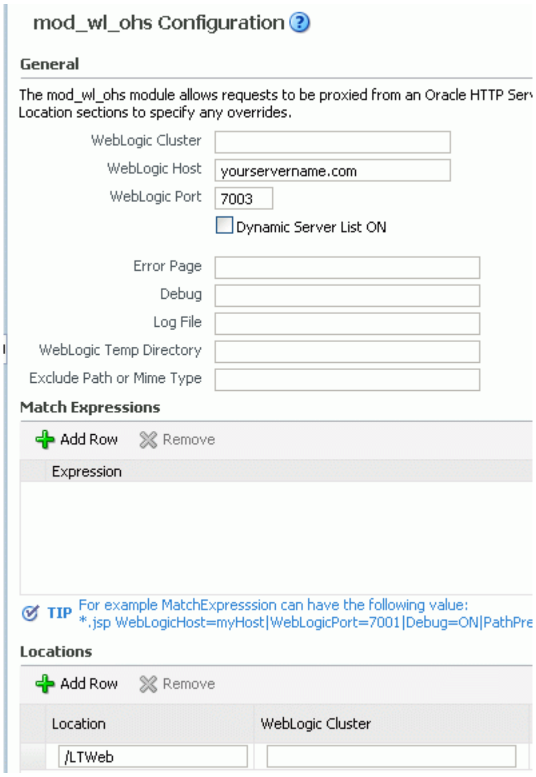
```
<IfModule weblogic_module>

WebLogicHost yourservername.com
WebLogicPort 7002

<Location /LTAdminWeb>
 SetHandler weblogic-handler
</Location>

</IfModule>
```

Figure 10–3 Sample mod_wl_ohs configuration for LT



mod_wl_ohs Configuration

General

The mod_wl_ohs module allows requests to be proxied from an Oracle HTTP Serv
Location sections to specify any overrides.

WebLogic Cluster:
WebLogic Host: yourservername.com
WebLogic Port: 7003
□ Dynamic Server List ON

Error Page:
Debug:
Log File:
WebLogic Temp Directory:
Exclude Path or Mime Type:

Match Expressions

Expression

TIP For example MatchExpresssion can have the following value:
*.jsp WebLogicHost=myHost|WebLogicPort=7001|Debug=ON|PathPre

Locations

Location	WebLogic Cluster
/LTWeb	

This configuration will effectively be added to the **mod_wl_ohs.conf** file of this OHS instance. You can also manually modify this file without using the EM.

For example:

```
<IfModule weblogic_module>

WebLogicHost yourservername.com
WebLogicPort 7002

<Location /LTWeb>
```

```
 SetHandler weblogic-handler
</Location>

</IfModule>
```

10.2.3 Registering OHS mod_osso with OSSO Server

To register OHS **mod_osso** with OSSO server, perform the following:

1. Execute the **ssoreg.sh** tool, which can be found in `<OSSO_HOME>/sso/bin`, where `<OSSO_HOME>` is the directory to which Oracle Single Sign-On is installed.

   Note: The directory where you want to store the result config file must be created beforehand.

   ```
   $cd <OSSO_HOME>/sso/bin

   $export ORACLE_HOME=<OSSO_HOME>

   $./ssoreg.sh -oracle_home_path <OSSO_HOME> -site_name LearningToolAdmin
   -config_mod_osso TRUE -mod_osso_url http://<LT_WEB_HOST>:<LT_WEB_PORT> -update_
   mode CREATE -remote_midtier -config_file <OSSO_HOME>/temp/osso_admin.conf

   $./ssoreg.sh -oracle_home_path <OSSO_HOME> -site_name LearningTool -config_mod_
   osso TRUE -mod_osso_url http://<LT_WEB_HOST>:<LT_WEB_PORT> -update_mode CREATE
   -remote_midtier -config_file <OSSO_HOME>/temp/osso_lt.conf
   ```

   where:

   `<LT_WEB_HOST>` and `<LT_WEB_PORT>` are the host name and port of the web server configured as a front end to provide access to the Learning Tool Admin application.

   `<LT_WEB_HOST>` and `<LT_WEB_PORT>` are the host name and port of the web server configured as a front end to provide access to the Learning Tool application.

2. Copy this file to the web server instance location.

   For example:

   ```
   <MIDDLEWARE_HOME>/Oracle_WT1/instances/instance1/config/OHS/ohs1/osso/osso_
   admin.conf

   <MIDDLEWARE_HOME>/Oracle_WT1/instances/instance2/config/OHS/ohs2/osso/osso_
   lt.conf
   ```

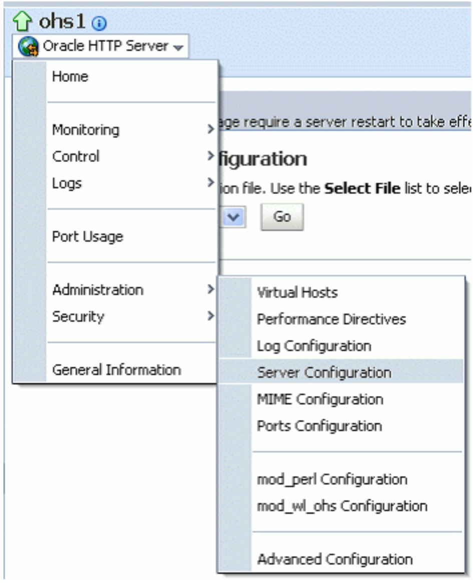
10.2.4 Configuring mod_osso to Protect Web Resources

To configure **mod_osso** to protect web resources, perform the following:

1. Enable **mod_osso** from EM.

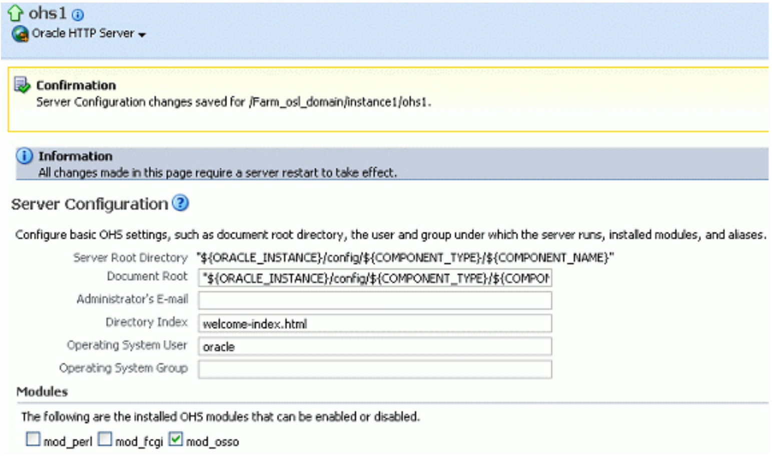
   Select the OHS instance on the left panel and select **Oracle HTTP Server** > **Administration** > **Server Configuration** on the right panel.

Figure 10–4 Configuring mod_osso



Check the check box for **mod_osso** and click **Apply**.

Figure 10–5 Enabling mod_osso



Confirmation
Server Configuration changes saved for /Farm_osl_domain/instance1/ohs1.

Information
All changes made in this page require a server restart to take effect.

Server Configuration

Configure basic OHS settings, such as document root directory, the user and group under which the server runs, installed modules, and aliases.

Server Root Directory	"${ORACLE_INSTANCE}/config/${COMPONENT_TYPE}/${COMPONENT_NAME}"
Document Root	"${ORACLE_INSTANCE}/config/${COMPONENT_TYPE}/${COMPON
Administrator's E-mail	
Directory Index	welcome-index.html
Operating System User	oracle
Operating System Group	

Modules

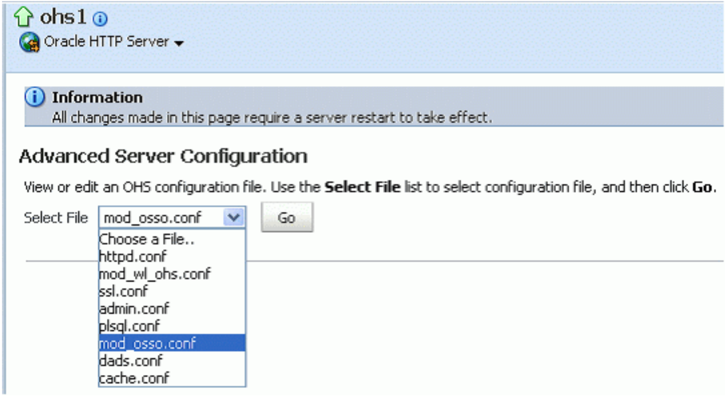
The following are the installed OHS modules that can be enabled or disabled.

□ mod_perl □ mod_fcgi ☑ mod_osso

2. Configure **mod_osso**.

   Go to the **Advanced Server Configuration**. The **Advanced Server Configuration** screen enables to directly edit the configuration files. From the list, select **mod_osso.conf** and click **Go**.

Figure 10–6 Setting up Advanced Server Configuration



Information
All changes made in this page require a server restart to take effect.

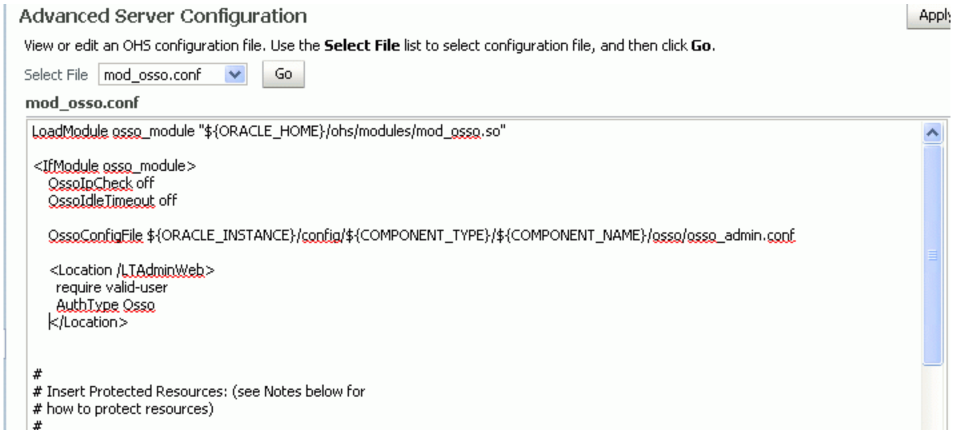
Advanced Server Configuration

View or edit an OHS configuration file. Use the **Select File** list to select configuration file, and then click **Go**.

Select File: mod_osso.conf

Edit the content of this file, see Figure 10–7.

Figure 10–7 Editing Content of mod_osso



Advanced Server Configuration

View or edit an OHS configuration file. Use the **Select File** list to select configuration file, and then click **Go**.

Select File: mod_osso.conf

mod_osso.conf

```
LoadModule osso_module "${ORACLE_HOME}/ohs/modules/mod_osso.so"

<IfModule osso_module>
   OssoIpCheck off
   OssoIdleTimeout off

   OssoConfigFile ${ORACLE_INSTANCE}/config/${COMPONENT_TYPE}/${COMPONENT_NAME}/osso/osso_admin.conf

   <Location /LTAdminWeb>
    require valid-user
    AuthType Osso
   </Location>


#
# Insert Protected Resources: (see Notes below for
# how to protect resources)
#
```

You can also manually edit the content of this file without using EM. Below is the sample configuration done for Learning Tool Admin and Learning Tool.

Sample configuration for Learning Tool Admin:

```
LoadModule osso_module "${ORACLE_HOME}/ohs/modules/mod_osso.so"

<IfModule osso_module>
  OssoIpCheck on
  OssoIdleTimeout off
  OssoSecureCookies off

  OssoConfigFile ${ORACLE_INSTANCE}/config/${COMPONENT_TYPE}/${COMPONENT_
NAME}/osso/osso_admin.conf

 <Location /LTAdminWeb>
  require valid-user
  AuthType Osso
 </Location>
</IfModule>
```

Sample configuration for Learning Tool:

```
LoadModule osso_module "${ORACLE_HOME}/ohs/modules/mod_osso.so"
```

```
<IfModule osso_module>
 OssoIpCheck on
 OssoIdleTimeout off
 OssoSecureCookies off

 OssoConfigFile ${ORACLE_INSTANCE}/config/${COMPONENT_TYPE}/ ${COMPONENT_
NAME}/osso/osso_lt.conf
 OssoHTTPOnly Off

 <Location /LTWeb>
  require valid-user
  AuthType Osso
 </Location>
</IfModule>
```

> **Note:** The configuration directive `OssoHTTPOnly` must be turned off in the web server configured as a front end to provide access to the Learning Tool application. This is to allow the audio applet in the Learning Tool application to be able to read the OSSO cookies.

10.2.5 Setting Up Providers for OSSO in a WebLogic Domain

Oracle recommends the following Authentication providers:

- OSSO Identity Asserter
- OID Authenticator
- DefaultAuthenticator

To add providers to your WebLogic domain for OSSO Identity Assertion, perform the following:

1. Log in to the **WebLogic Administration Console**.
2. OSSO Identity Asserter:

   Go to **Security Realms** > Default Realm Name (Example: **myrealm**) and click **Providers**.

   Select **New** under the **Authentication Providers** table.

   Enter a name for the new provider, select its type, and click **OK**.

   - Name: OSSO Identity Asserter
   - Type: OSSOIdentityAsserter

   > **Note:** For OSSOIdentityAsserter to appear in the list, you must copy **ossoiap.jar** to `<DOMAIN_HOME>/lib`.
   >
   > The **ossoiap.jar** is available in `<MIDDLEWARE_HOME>/oracle_common/modules/oracle.ossoiap_11.1.1` in the computer where an Oracle Fusion Middleware products such as Oracle Identity Management, Oracle SOA Suite, or Oracle WebCenter is installed.

   Click the name of the newly added provider.

   On the **Common** tab, set the appropriate values for common parameters and set the **Control Flag** to **SUFFICIENT** and then save the settings.

3. Default Authentication Provider:

   Go to **Security Realms** > Default Realm Name (Example: **myrealm**) and click **Providers**.

   Click **DefaultAuthentication Provider**.

   Set the **Control Flag** to **OPTIONAL** and click **Save**.

4. OID Authenticator:

   The instructions to create this provider are provided in Section 8.5, "Configuring OID as Security Provider".

   If the OID Authenticator is configured successfully, you can change the Control Flag to **SUFFICIENT**.

5. Reorder Providers:

   - OSSO Identity Asserter (SUFFICIENT)
   - OID Authenticator (SUFFICIENT)
   - DefaultAuthenticator (OPTIONAL)

6. Save all configuration settings and restart the Oracle WebLogic Server for the changes to take effect.

10.2.6 Configuring web.xml for the OSSO Identity Asserter

Update the `<login-config>` in `web.xml` for the application to support SSO as follows:

1. Modify the web.xml, which is located at

   `[OSL Home directory]/LearningTool/Configuration/LearningTool/Deployment Descriptors/` for Learning Tool and at `[OSL Home directory]/LearningTool/Configuration/Admin/DeploymentDescriptors/` for Learning Tool Admin to update the `login-config` as follows:

   ```
   <login-config>
     <auth-method>CLIENT-CERT</auth-method>
     <realm-name>myRealm</realm-name>
   </login-config>

   <!--login-config>
   <auth-method>FORM</auth-method>
   <form-login-config>
   <form-login-page>/faces/loginView.jspx</form-login-page>
   <form-error-page>/faces/loginErrorView.jspx</form-error-page>
   </form-login-config>
   </login-config-->
   ```

2. Run the Configurator to update the EAR files as explained in Section 9.3, "Running the OSL Learning Tool Configurator".

10.3 Configuring SSO for OBIEE

To configure SSO for OBIEE, perform the following steps in the subsequent sections:

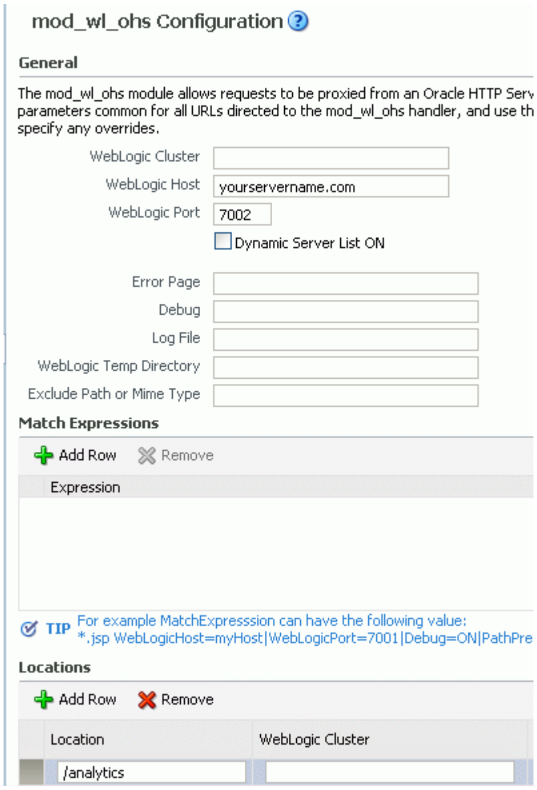
10.3.1 Installing HTTP Server

Install web server to be used as a front end to Oracle WebLogic Server. In this guide, use Oracle HTTP Server 11*g* which is available after the installation of Web Tier Utilities 11.1.1.2.0.

10.3.2 Configuring mod_wl_ohs

If the ear/war file is deployed onto a WebLogic Server, perform similar steps as Section 10.2.2, "Configuring mod_wl_ohs" to configure **mod_wl_ohs**.

Figure 10–8 Configuring mod_wl_ohs



mod_wl_ohs Configuration

General

The mod_wl_ohs module allows requests to be proxied from an Oracle HTTP Serv
parameters common for all URLs directed to the mod_wl_ohs handler, and use th
specify any overrides.

WebLogic Cluster:
WebLogic Host: yourservername.com
WebLogic Port: 7002
□ Dynamic Server List ON

Error Page:
Debug:
Log File:
WebLogic Temp Directory:
Exclude Path or Mime Type:

Match Expressions

Expression

TIP For example MatchExpresssion can have the following value:
*.jsp WebLogicHost=myHost|WebLogicPort=7001|Debug=ON|PathPre

Locations

Location	WebLogic Cluster
/analytics	

10.3.3 Registering OHS mod_osso with OSSO Server

To register OHS **mod_osso** with OSSO Server, perform the following:

1. Execute the **ssoreg.sh** tool, which can be found in `<OSSO_HOME>/sso/bin`, where `<OSSO_HOME>` is the directory in which Oracle Single Sign-On is installed.

   > **Note:** The directory where you want to store the result config file must be created beforehand.

   ```
   $cd <OSSO_HOME>/sso/bin

   $export ORACLE_HOME=<OSSO_HOME>

   $./ssoreg.sh -oracle_home_path <OSSO_HOME> -site_name Student_Reporting
   -config_mod_osso TRUE -mod_osso_url
   ```

```
http://<OBIEE_WEB_HOST>:<OBIEE_WEB_PORT> -update_mode CREATE -remote_midtier
-config_file <OSSO_HOME>/temp/osso_bi.conf
```

where:

`<OBIEE_WEB_HOST>` and `<OBIEE_WEB_PORT>` are the host name and port of the web server configured as a front end to provide access to the OBIEE application.

2. Copy this file to the web server instance location.

   For Example:

   ```
   <MIDDLEWARE_HOME>/Oracle_WT1/instances/instance3/config/OHS/ohs3/osso/osso_
   bi.conf
   ```

10.3.4 Configuring mod_osso to Protect Web Resources

Perform similar steps as explained in Section 10.2.4, "Configuring mod_osso to Protect Web Resources" to configure the **mod_osso** as follows:

```
LoadModule osso_module "${ORACLE_HOME}/ohs/modules/mod_osso.so"

<IfModule osso_module>
    OssoIpCheck on
    OssoIdleTimeout off
    OssoSecureCookies off

    OssoConfigFile ${ORACLE_INSTANCE}/config/${COMPONENT_TYPE}/ ${COMPONENT_
NAME}/osso/osso_bi.conf

   <Location /analytics>
        Header unset Pragma
        OssoSendCacheHeaders off
        require valid-user
        AuthType Osso
   </Location>

</IfModule>
```

10.3.5 Creating Oracle BI Server Impersonator User

Follow this procedure to create the impersonator user in the BI Server repository.

1. Open the BI Server repository file (**.rpd**) using **BI Administration Tool**.
2. Select **Manage** > **Security** to display the **Security Manager**.
3. Select **Action** > **New** > **User** to open the **User** dialog box.
4. Enter a name and password for this user.

   For example:

   Name = Impersonator

   Password = secret
5. In the **Group Membership** portion of the dialog box, check the **Administrators** group to grant the user created as member to this group.
6. Click **OK** to create the user.

10.3.6 Adding the Impersonator Credentials to Oracle BI Presentation Services Credential Store

Perform this step to add the impersonator credentials to Oracle BI Presentation Services credential store.

1. Navigate to the `OracleBI_HOME/web/bin` directory.

```
$export LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/OracleBI_HOME/web/bin$./cryptotools
credstore -add -infile <OracleBIData>/web/config/credentialstore.xml>
Credential Alias: impersonation
>Username: Impersonator
>Password: secret
>Do you want to encrypt the password? y/n (y):
>Passphrase for encryption: another_secret
>Do you want to write the passphrase to the xml? y/n (n):
```

2. The **CryptoTools** utility updates the `credentialstore.xml` file. This file is located in the `OracleBIData/web/config`.

10.3.7 Configuring Oracle BI Presentation Services to Identify the Credential Store and Decryption Passphrase

Edit the `OracleBIData/web/config/instanceconfig.xml` file.

```
<WebConfig>
   <ServerInstance>
   <!-- other settings ... -->
      <CredentialStore>
      <CredentialStorage type="file”
path="/<OracleBIData>/web/config/credentialstore.xml"
             passphrase="another_secret"/>
      </CredentialStore>
   <!-- other settings ... -->
   </ServerInstance>
</WebConfig>
```

10.3.8 Configuring BI Presentation Services to Operate in the SSO Environment

Edit the `OracleBIData/web/config/instanceconfig.xml` file.

```
<ServerInstance>
<!-- other settings ... -->
<Auth>
   <SSO enabled="true">
      <ParamList>
         <!--IMPERSONATE param is used to get the authenticated user's username
and is required -->
         <Param name="IMPERSONATE" source="httpHeader"
nameInSource="Proxy-Remote-User"/>
      </ParamList>
      <LogoffUrl>http://<SSO_HOST>:<SSO_PORT>/pls/orasso/orasso.wwsso_app_
admin.ls_logout?p_done_url=http%3A%2F%2F<OBIEE_WEB_HOST>:<OBIEE_WEB_
PORT>%2Fanalytics%2F
      </LogoffUrl>
      <LogonUrl>
           http:// <OBIEE_WEB_HOST>:<OBIEE_WEB_PORT>/analytics
      </LogonUrl>
   </SSO>
```

```
</Auth>
<!-- other settings ... -->
</ServerInstance>
```

10.4 Configuring SSO for UCM 10*g*

To configure SSO for UCM 10*g*, perform the steps in the subsequent sections:

10.4.1 Installing HTTP Server

Install web server to be used as a front end to UCM. In this guide, use Oracle HTTP Server 11*g* which is available after the installation of Web Tier Utilities 11.1.1.2.0.

10.4.2 Configuring OHS as Web Server for UCM

Inside the **httpd.conf** of the OHS instance, add the following to configure this OHS instance as the web server for UCM. Make sure that you use the correct library under **linux64** or **linux** folder:

```
LoadModule IdcApacheAuth
<UCM_INSTALLATION_FOLDER>/server/shared/os/linux64/lib/IdcApache22Auth.so
IdcUserDB idc "<UCM_INSTALLATION_FOLDER>/server/data/users/userdb.txt"

Alias /idc "<UCM_INSTALLATION_FOLDER>/server/weblayout"
<Location /idc>
Order allow,deny
Allow from all
DirectoryIndex portal.htm
IdcSecurity idc
</Location>
```

Note: Ensure that the UCM Server is configured with the correct host name and port number of the Web Server to be used as its front end.

Check the `<UCM_INSTALLATION_FOLDER>/server/config/config.cfg` config file and make sure the value of `HttpServerAddress` is correct:

```
HttpServerAddress=<UCM_OHS_HOST>:<UCM_OHS_PORT>
```

10.4.3 Registering OHS mod_osso with OSSO Server

To register OHS **mod_osso** with OSSO Server, perform the following:

1. Execute the **ssoreg.sh** tool, which can be found in `<OSSO_HOME>/sso/bin`, where `<OSSO_HOME>` is the directory in which Oracle Single Sign-On is installed.

Note: Please note that the directory where you want to store the result config file must be created beforehand.

```
$ cd <OSSO_HOME>/sso/bin

$export ORACLE_HOME=<OSSO_HOME>
```

```
$./ssoreg.sh -oracle_home_path <OSSO_HOME> -site_name Stellent_UCM -config_mod_
osso TRUE -mod_osso_url http://<UCM_OHS_HOST>:<UCM_OHS_PORT> -update_mode
CREATE -remote_midtier -config_file <OSSO_HOME>/temp/osso_ucm.conf
```

2. Copy this file to the web server instance location.

   For example:

   ```
   <MIDDLEWARE_HOME>/Oracle_WT1/instances/instance1/config/OHS/ohs1/osso/osso_
   ucm.conf
   ```

10.4.4 Configuring mod_osso to Protect Web Resources

Perform similar steps as explained in Section 10.2.4, "Configuring mod_osso to Protect Web Resources" to configure the **mod_osso** as follows:

```
LoadModule osso_module "${ORACLE_HOME}/ohs/modules/mod_osso.so"

<IfModule osso_module>
    OssoIpCheck on
    OssoIdleTimeout off
    OssoSecureCookies off
    OssoConfigFile
 ${ORACLE_INSTANCE}/config/${COMPONENT_TYPE}/${COMPONENT_NAME}/osso/osso_ucm.conf

     <Location /idc>
        require valid-user
        AuthType Osso
    </Location>
 </IfModule>
```

10.5 Configuring SSO for Oracle UCM 11*g*

Oracle UCM 11*g* Release 1 (11.1.1) is deployed on an Oracle WebLogic Server. Therefore, the steps to configure OAM as the SSO solution for UCM is similar to the steps described in Section 10.2, "Configuring SSO for Learning Tool".

For more detailed explanation on configuring SSO for UCM 11*g* Release, you can read Chapter 4.2.3 "Configuring Oracle UCM to Use Single Sign-On" in the *Oracle® Fusion Middleware System Administrator's Guide for Content Server 11g Release 1 (11.1.1)* at

http://download.oracle.com/docs/cd/E14571_01/doc.1111/e10792/c03_security002.htm#insertedID3

10.5.1 Installing HTTP Server

Install web server to be used as a front end to UCM 11*g*. In this guide, use Oracle HTTP Server 11*g*, which is available after the installation of Web Tier Utilities 11.1.1.2.0.

10.5.2 Configuring mod_wl_ohs

Perform similar steps as Section 10.2.2, "Configuring mod_wl_ohs" to configure **mod_wl_ohs**.

```
LoadModule weblogic_module "${ORACLE_HOME}/ohs/modules/mod_wl_ohs.so"

<IfModule weblogic_module>
```

```
<Location /cs>
SetHandler weblogic-handler
WebLogicHost <ucm-hostname>
WebLogicPort <ucm-server-port>

</Location>
</IfModule>
```

> **Note:** Ensure that the UCM Server is configured with the correct host name and port number of the Web Server to be used as its front end.

Check the `<UCM_INSTALLATION_FOLDER>/server/config/config.cfg` config file and make sure the value of HttpServerAddress is correct:

HttpServerAddress=`<UCM_OHS_HOST>:<UCM_OHS_PORT>`

10.5.3 Registering OHS mod_osso with OSSO Server

To register OHS mod_osso with OSSO Server, perform similar steps in Section 10.4.3, "Registering OHS mod_osso with OSSO Server".

10.5.4 Configuring mod_osso to protect Web Resource

Perform similar steps as Section 10.2.4, "Configuring mod_osso to Protect Web Resources" to configure **mod_wl_ohs**.

```
LoadModule osso_module "${ORACLE_HOME}/ohs/modules/mod_osso.so"

<IfModule osso_module>

OssoIpCheck on
OssoIdleTimeout off
OssoSecureCookies off
OssoConfigFile ${ORACLE_INSTANCE}/config/${COMPONENT_TYPE}/${COMPONENT_
NAME}/osso/osso_ucm.conf

<Location /cs>
require valid-user
AuthType Osso
</Location>

</IfModule>
```

10.5.5 Setting Up Providers for OSSO in a WebLogic Domain

Perform similar steps as Section 10.2.5, "Setting Up Providers for OSSO in a WebLogic Domain" to set up providers for OSSO in a WebLogic Domain that UCM is deployed to.

10.6 Updating the OSL Configuration

The following configuration is required for OSL to operate in an SSO environment:

1. Update the `OSL_PROFILE_OPTION_VALUES`:

Set the values for OSL_SHOW_LOGOUT_LINK in OSL_PROFILE_OPTION_VALUES table as follows:

Table 10–1 Updating OSL_PROFILE_OPTION_VALUES

Value	Description
OSL_SHOW_LOGOUT_LINK	■ Y (to display the logout link in Learning Tool and Learning Tool Admin) or ■ N (to hide the logout link in Learning Tool and Learning Tool Admin)

2. Update the logout URL for Learning Tool and Learning Tool Admin.

   - Set the OSL_ADMIN_LOGOUT_URL as follows:

     ```
     http://<SSO_HOST>:<SSO_PORT>/pls/orasso/orasso.wwsso_app_
     admin.ls_logout?p_done_url=http%3A%2F%2F<LT_WEB_HOST>:<LT_
     WEB_PORT>%2FLTAdminWeb%2F
     ```

     where: <LT_WEB_HOST> and <LT_WEB_PORT> are the host name and port of the web server configured as a front end to provide access to the Learning Tool Admin application.

   - Set the OSL_LOGOUT_URL as follows:

     ```
     http://<SSO_HOST_NAME>:<SSO_PORT>/pls/orasso/orasso.wwsso_
     app_admin.ls_logout?p_done_url=http%3A%2F%2F<LT_WEB_
     HOST>:<LT_WEB_PORT>%2FLTWeb%2F
     ```

     where: <LT_WEB_HOST> and <LT_WEB_PORT> are the host name and port of the web server configured as a front end to provide access to the Learning Tool application.

   For information about the OSL configuration file where you must make these changes, see Section 9.1.7, "Updating Logout URL for Learning Tool and Learning Tool Admin".

11

Configuring Oracle Access Manager 10g

This chapter describes the steps on how to configure Oracle Access Manager 10*g*.

11.1 Configuring OAM 10*g*

This chapter provides step-by-step instructions on how to configure OAM as the Single Sign-On solution for OSL. However, you can find complete explanation of the OAM 10*g* Solution in "Chapter 10 Configuring Single Sign-On in Oracle Fusion Middleware" in the *Oracle® Fusion Middleware Security Guide 11g Release 1 (11.1.1)* at

`http://download.oracle.com/docs/cd/E12839_01/core.1111/e10043/toc.htm`

The subsequent sections describes the required components and the steps on how to configure OAM 10*g*.

11.2 Required Components

OSL is certified to work with the following software components:

- Oracle Access Manager (OAM) 10*g* (10.1.4.3.0)
- Oracle Identity Management (11.1.1.3.0)
- Web Tier Utilities 11.1.1.2.0 (for installation of HTTP Server)
- Oracle WebLogic Server 10.3.3

11.3 Installing OAM 10*g* Components

Perform the instructions on how to install OAM at

`http://download.oracle.com/docs/cd/E15217_01/doc.1014/e12493/toc.htm`

11.4 Configuring SSO for Learning Tool

To configure SSO for Learning Tool, perform the steps in the subsequent sections.

11.4.1 Installing HTTP Server

Install a web server to be used as the front end to the Oracle WebLogic Server. In this guide, we use Oracle HTTP Server (OHS) 11*g*, which is available after the installation of Web Tier Utilities 11.1.1.2.0

11.4.2 Configuring mod_wl_ohs

If you select the "Associate Selected Components with WebLogic Domain" option during the installation of Web Tier Utilities, you are able to manage the web server using **Enterprise Manager (EM)**. It is also possible to do the same configuration by manually editing the configuration files.

This section demonstrates the configuration of **mod_wl_ohs** by manually editing the **mod_wl_ohs.conf** file.

> **Note:** If you install Web Tier Utilities, you can locate **mod_wl_ohs.conf** file under the OHS instance folder.
>
> For example:
>
> ```
> <MIDDLEWARE_HOME>/Oracle_
> WT1/instances/instance1/config/OHS/ohs1/
> ```

Below is a sample **mod_wl_ohs** configuration for the web server to be used as a front end for both Learning Tool and Learning Tool Admin.

```
LoadModule weblogic_module "${ORACLE_HOME}/ohs/modules/mod_wl_ohs.so"

<IfModule weblogic_module>

<Location /LTWeb>
  SetHandler weblogic-handler
  WebLogicHost <lt-host-name>
  WebLogicPort <lt-port>
  WLCookieName OSLLTSESSIONID
</Location>

<Location /LTAdminWeb>
  SetHandler weblogic-handler
  WebLogicHost <lt-host-name>
  WebLogicPort <lt-port>
  WLCookieName OSLLTASESSIONID
</Location>

</IfModule>
```

11.4.3 Creating an AccessGate Object on OAM Access Server

Before WebGate installation, an AccessGate object must be created in the Access Administration Console and associated with an Access Server. This task can be done manually in the OAM Access Administration Console or with the use of Oracle Access Manager Configuration tool.

> **Note:** The Oracle Access Manager Configuration tool (OAM Configuration tool) is a command line utility that enables you to configure OAM. The OAM Configuration tool runs a series of scripts and sets up the required policies.

Below are sample scripts to create the AccessGate object for Learning Tool and Learning Tool Admin's HTTP Server:

```
java -jar oamcfgtool.jar mode=CREATE
```

```
app_domain=your_host_machine.company.com protected_uris=/LTWeb
app_agent_password=<webgate_password> cookie_domain=.company.com
ldap_host=<oam_ldap_directory_server_host>
ldap_port=<oam_ldap_director_server_port>
ldap_userdn="<ldap_admin_user>"
ldap_userpassword=<ldap_admin_password>
oam_aaa_host=<access_server_host>
oam_aaa_port=<access_server_port>
oam_aaa_mode=OPEN
```

The above command will create a new WebGate profile. The profile is populated with a WebGate name, Host name, and Preferred HTTP host all using the same **app_domain** value as follows:

- app_domain = your_host_machine.company.com
- AccessGate Name: your_host_machine.company.com_AG

  _AG is appended to the app_domain
- Hostname: your_host_machine.company.com
- Preferred HTTP Host: your_host_machine.company.com

```
java -jar oamcfgtool.jar mode=CREATE
app_domain=your_host_machine.company.com protected_uris=/LTAdminWeb
app_agent_password=<webgate_password>
cookie_domain=.company.com
ldap_host=<oam_ldap_directory_server_host>
ldap_port=<oam_ldap_director_server_port>
ldap_userdn="<ldap_admin_user>"
ldap_userpassword=<ldap_admin_password>
oam_aaa_host=<access_server_host>
oam_aaa_port=<access_server_port>
oam_aaa_mode=OPEN web_domain=your_host_machine.company.com
```

The above command includes **web_domain** to indicate that this is an existing Web Tier. The value of **web_domain** should be the name of an existing host identifier in Oracle Access Manager (OAM) to tie new policies to an existing host ID. This is because in this sample setup, we are using the same web server as the front end for both Learning Tool and Learning Tool Admin.

For more information about the OAM Configuration Tool, you can read Chapter 10.2.4.2 “Configuring the Authentication Scheme for the Identity Asserter" in the *Oracle® Fusion Middleware Security Guide 11g Release 1 (11.1.1)* at

http://download.oracle.com/docs/cd/E12839_01/core.1111/e10043/toc.htm

After the AccessGate, Authentication Management, Host Identifier, and Policy Domain are automatically created by the tool, you can modify them any time in the OAM Access Administration Console.

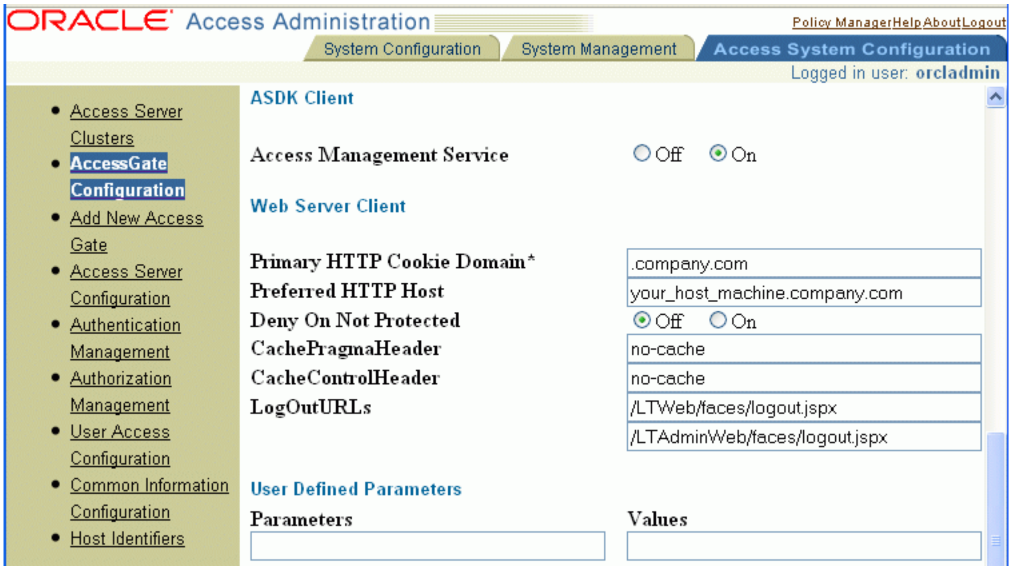
11.4.4 Configuring WebGate for Global SSO Logout

You must specify LogoutURLs parameter in the WebGate/AccessGate profile created for Learning Tool and Learning Tool Admin to support Global SSO Logout.

Learning Tool: `/LTWeb/faces/logout.jspx`

Learning Tool Admin: `/LTAdminWeb/faces/logout.jspx`

Figure 11–1 Configuring WebGate for Global SSO Logout


ORACLE Access Administration
Policy Manager Help About Logout
System Configuration
System Management
Access System Configuration
Logged in user: orcladmin
Access Server Clusters
AccessGate Configuration
Add New Access Gate
Access Server Configuration
Authentication Management
Authorization Management
User Access Configuration
Common Information Configuration
Host Identifiers

ASDK Client

Access Management Service ○ Off ● On

Web Server Client

Primary HTTP Cookie Domain*	.company.com
Preferred HTTP Host	your_host_machine.company.com
Deny On Not Protected	● Off ○ On
CachePragmaHeader	no-cache
CacheControlHeader	no-cache
LogOutURLs	/LTWeb/faces/logout.jspx /LTAdminWeb/faces/logout.jspx

User Defined Parameters

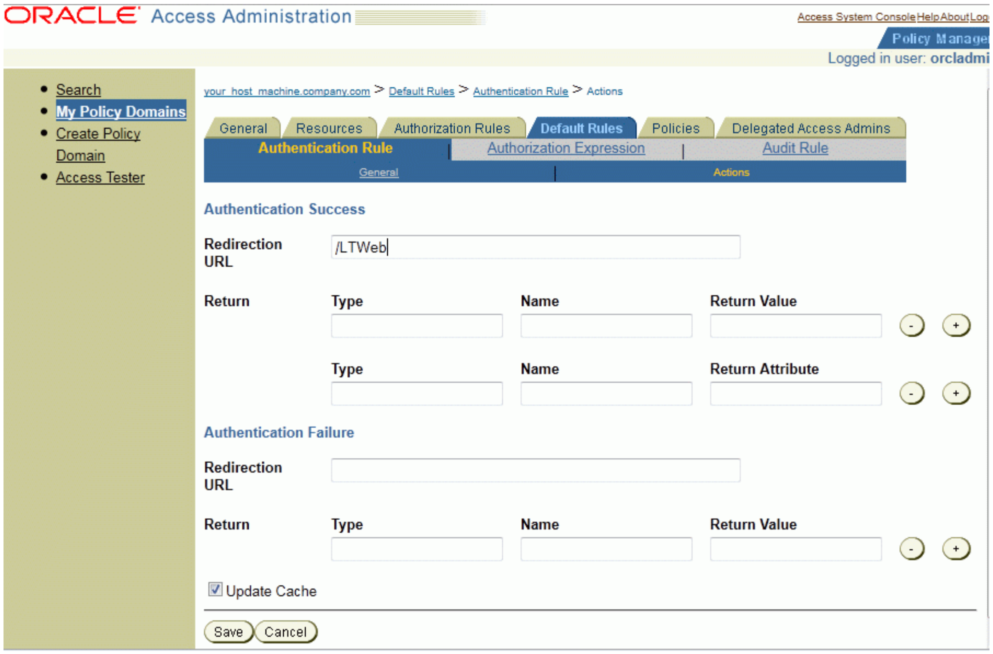
Parameters	Values

11.4.5 Configuring the Redirection URL for Learning Tool

Some URLs in the Learning Tool might not work correctly if you access them directly. You must configure OAM to redirect users to the home page after each successful authentication.

For this OAM configuration, go to the **Default Rules** tab of the corresponding **Policy Domain** and set the **Redirection URL** for **Authentication Success**. If you need more than one Redirection URL, you can do so in separate policy domains.

Figure 11–2 Configuring the Redirection URL



Authentication Success

Redirection URL: /LTWeb

Return — Type, Name, Return Value

Type, Name, Return Attribute

Authentication Failure

Redirection URL:

Return — Type, Name, Return Value

☑ Update Cache

11.4.6 Modifying the Challenge Parameter to Support Java Applet

As default, the **ssoCookie:httponly** challenge parameter is turned on in an Authentication scheme. This helps to prevent JavaScript running in the browser from accessing the ObSSOCookie, which provides a more secure environment.

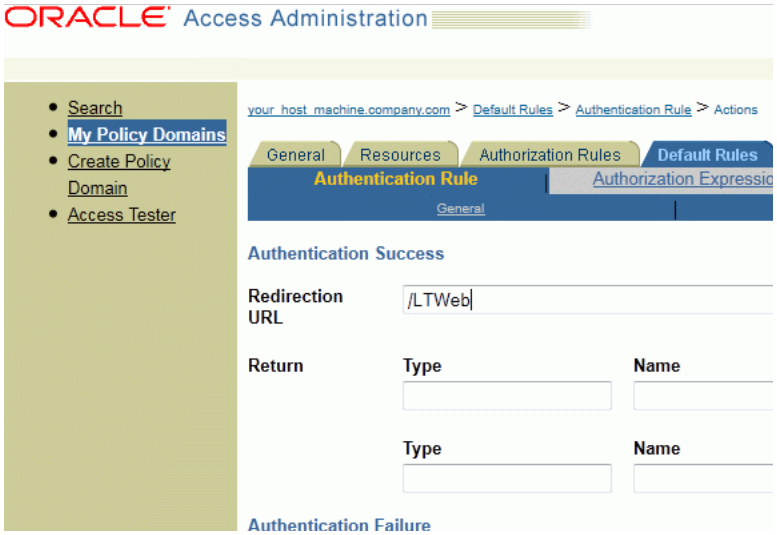
However, browser support for the **ssoCookie:httponly** challenge parameter is inconsistent and can cause Java Applets not to run correctly.

Therefore, to support the audio applet required in Learning Tool application, this parameter must be disabled.

In the **Access System Configuration** tab of the **Access Administration Console**, go to **Authentication Management > OraDefaultFormAuthNScheme** and modify this Authentication scheme to include a new Challenge Parameter:

ssoCookie:disablehttponly

Figure 11–3 Access System Configuration Screen



Authentication Success

Redirection URL: /LTWeb

Return

Type	Name

Authentication Failure

11.4.7 Installing the WebGate Plug-in for the HTTP Server

The WebGate requires the following libraries before installation: `libgcc_s.so.1` and `libstdc++.so.5`. The files must be available in a local directory (For example: `/home/username/gcc`). This directory is specified later during the installation of the WebGate.

Assuming 64 bit HTTP Server is used, you can get these required files from `/lib64` and `/usr/lib64`.

```
cp /lib64/libgcc_s.so.1 /home/username/gcc
cp /usr/lib64/libstdc++.so.5 /home/username/gcc
```

Run the OAM WebGate 10.1.4.3.0 installer as root (`./Oracle_Access_Manager10_1_4_3_0_linux64_OHS11g_WebGate`) and follow the prompts:

1. Specify the user/group running the web server.
2. Specify the installation directory for Oracle Access Manager 10.1.4.3.0 WebGate (For example: `/home/username/webgate`). Note that the OAM 10.1.4.3.0 WebGate installation directory would be: `/home/username/webgate/access`.

3. For "Location of GCC runtime libraries", specify the directory where you installed `libgcc_s.so.1` and `libstdc++.so.5` as mentioned above.
4. For "Transport security mode", select **Open** mode.
5. For "Webgate ID", enter the AccessGate Name you specified in Section 11.4.3, "Creating an AccessGate Object on OAM Access Server". For example: your_host_machine.company.com_AG.
6. For "Password for WebGate", enter the same password you specified in Section 11.4.3, "Creating an AccessGate Object on OAM Access Server".
7. For "Access Server ID", enter the name of the OAM Access Server.
8. For "Hostname where Access Server is installed", enter the host name where OAM Access Server is running.
9. For "Port number", enter the port for the OAM Access Server.
10. Select Automatic update of **httpd.conf**.
11. For "Enter the absolute path of httpd.conf in your Web server config directory", enter the OHS instance path. For example: `<MIDDLEWARE_HOME>/Oracle_WT1/instances/instance1/config/OHS/ohs1/httpd.conf`.
12. Restart the OHS instance.

11.4.8 Setting up Providers for OAM SSO in a WebLogic Domain

This section describes how to configure providers in the WebLogic security domain to perform single sign-on with the Oracle Access Manager Identity Asserter. Several Authentication provider types must be configured and ordered.

1. Log in to the WebLogic Administration Console.
2. Add the OAM Identity Asserter:
   a. Click **Security Realms**, Default Realm Name (example: **myrealm**) and click **Providers**.

   b. Click **Authentication > New** and then enter a name and select a type:

      Name: OAM Identity Asserter

      Type: OAMIdentityAsserter

   c. In the **Authentication Providers** table, click the newly added authenticator.

   d. Click the **Common** tab, set the **Control Flag** to **REQUIRED**, and click **Save**.
3. OID Authenticator:

   The instructions to create this provider are provided in Section 8.5, "Configuring OID as Security Provider".

   If the OID Authenticator is configured successfully, you can change the **Control Flag** to **SUFFICIENT**.
4. Default Authenticator:

   Perform the following steps to set up the Default Authenticator for use with the Identity Asserter:

   a. Go to **Security Realms**, Default Realm Name (example: **myrealm**) and click **Providers**.

   b. Click **Authentication** and click **DefaultAuthenticator** to see its configuration page.
   c. Click the **Common** tab and set the **Control Flag** to **SUFFICIENT**.
   d. Click **Save**.

5. Reorder Providers:
   a. Click **Security Realms**, Default Realm Name (example: **myrealm**) and click **Providers**.
   b. On the **Summary** page where providers are listed, click the **Reorder** button.
   c. On the **Reorder Authentication Providers** page, select a provider name and use the arrows beside the list to order the providers as follows:

      OAM Identity Asserter (REQUIRED)

      OID Authenticator (SUFFICIENT)

      Default Authenticator (SUFFICIENT)
   d. Click **OK** to save your changes.
6. Activate Changes:

   In the **Change Center**, click **Activate Changes**.
7. Reboot Oracle WebLogic Server.

11.4.9 Configuring the Session Time-out

For proper behavior, WebLogic application session time-out values must be the same as WebGate session time-out values.

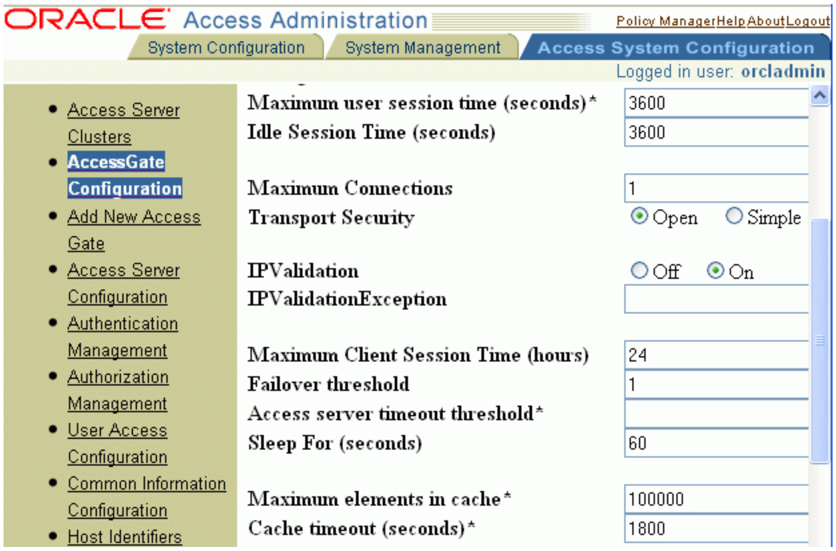
To set the WebLogic session time-out, modify the `web.xml` as follow:

```
<session-config>
  <session-timeout>60</session-timeout>
</session-config>
```

Note in `web.xml` the session time-out is set in minutes.

To set the WebGate session time out, modify the **Idle Session Time (seconds)**:

Figure 11–4 Modifying the Idle Session Time


ORACLE Access Administration
Policy Manager Help About Logout
System Configuration
System Management
Access System Configuration
Logged in user: orcladmin
Access Server Clusters
AccessGate Configuration
Add New Access Gate
Access Server Configuration
Authentication Management
Authorization Management
User Access Configuration
Common Information Configuration
Host Identifiers

Maximum user session time (seconds)*	3600
Idle Session Time (seconds)	3600
Maximum Connections	1
Transport Security	● Open ○ Simple
IPValidation	○ Off ● On
IPValidationException	
Maximum Client Session Time (hours)	24
Failover threshold	1
Access server timeout threshold*	
Sleep For (seconds)	60
Maximum elements in cache*	100000
Cache timeout (seconds)*	1800

11.4.10 Calling Learning Tool Logout from other Applications

In case the Global SSO Logout is triggered by another application, the Learning Tool session will still be active. Therefore, the session data will not be cleaned up until the session times out.

To clean up the Learning Tool session data after the Global SSO Logout occurs from another application, you need to send an `http` request to the below Learning Tool URL:

```
http://<LT_WEB_HOST>:<LT_WEB_PORT>/LTWeb/logout.jsp
```

This URL will clear the Learning Tool session and then perform an `http` redirect to the URL.

11.5 Configuring SSO for OBIEE

To configure SSO for OBIEE, perform the steps in the subsequent sections.

11.5.1 Installing HTTP Server

Install a web server to be used as the front end to the Oracle WebLogic Server. In this guide, use Oracle HTTP Server (OHS) 11*g*, which is available after the installation of Web Tier Utilities 11.1.1.2.0.

11.5.2 Configure mod_wl_ohs

If the OBIEE war file is deployed onto a WebLogic Server, perform similar steps as in Section 11.4.2, "Configuring mod_wl_ohs" to configure **mod_wl_ohs**.

```
LoadModule weblogic_module "${ORACLE_HOME}/ohs/modules/mod_wl_ohs.so"

<IfModule weblogic_module>

<Location /analytics>
   SetHandler weblogic-handler
   WebLogicHost <obiee-host-name>
   WebLogicPort <obiee-port>
</Location>

</IfModule>
```

11.5.3 Creating an AccessGate Object on OAM Access Server

Perform similar steps as Section 11.4.3, "Creating an AccessGate Object on OAM Access Server" to create the AccessGate object for OBIEE's HTTP Server.

```
java -jar oamcfgtool.jar mode=CREATE
app_domain=your_host_machine.company.com protected_uris=/analytics
app_agent_password=<webgate_password> cookie_domain=.company.com
ldap_host=<oam_ldap_directory_server_host>
ldap_port=<oam_ldap_director_server_port>
ldap_userdn="<ldap_admin_user>"
ldap_userpassword=<ldap_admin_password>
oam_aaa_host=<access_server_host> oam_aaa_port=<access_server_port>
oam_aaa_mode=OPEN
```

Note: Add web_domain to the script if this is an existing Web Tier.

11.5.4 Installing the WebGate Plug-in for the HTTP Server

Perform similar steps as Section 11.4.7, "Installing the WebGate Plug-in for the HTTP Server" to install the WebGate plug-in for OBIEE's HTTP Server. You can skip this step if OBIEE uses an existing HTTP Server with WebGate plug-in.

11.5.5 Creating Oracle BI Server Impersonator User

Perform similar steps as Section 10.3.5, "Creating Oracle BI Server Impersonator User".

11.5.6 Adding the Impersonator Credentials to Oracle BI Presentation Services Credential Store

Perform similar steps as Section 10.3.6, "Adding the Impersonator Credentials to Oracle BI Presentation Services Credential Store".

11.5.7 Configuring Oracle BI Presentation Services to Identify the Credential Store and Decryption Passphrase

Perform similar steps as Section 10.3.7, "Configuring Oracle BI Presentation Services to Identify the Credential Store and Decryption Passphrase".

11.5.8 Configuring BI Presentation Services to Operate in the SSO Environment

Edit the `OracleBIData/web/config/instanceconfig.xml` file.

```
<ServerInstance>
<!-- other settings ... -->
<Auth>
    <SSO enabled="true">
       <ParamList>
          <!--IMPERSONATE param is used to get the authenticated user's username
and is required -->
   <Param name="IMPERSONATE" source="httpHeader"
nameInSource="OAM_REMOTE_USER"/>
```

```
   </ParamList>
             <LogoffUrl>
        http http://<OBIEE_WEB_HOST>:<OBIEE_WEB_PORT>/oamsso/logout.html
                   </LogoffUrl>
                   <LogonUrl>
        http://<OBIEE_WEB_HOST>:<OBIEE_WEB_PORT>/analytics
</LogonUrl>
</SSO>
</Auth>
<!-- other settings ... -->
</ServerInstance>
```

11.6 Configuring SSO for UCM 11*g*

Oracle Universal Content Management (Oracle UCM) 11*g* Release 1 (11.1.1) is deployed on an Oracle WebLogic Server. The steps to configure OAM as the SSO solution for UCM is therefore similar to the steps described in section Section 10.2, "Configuring SSO for Learning Tool".

For more detailed explanation of configuring SSO for UCM 11*g*, you can read Chapter 4.2.3 "Configuring Oracle UCM to Use Single Sign-On" in the *Oracle® Fusion Middleware System Administrator's Guide for Content Server 11g Release 1 (11.1.1)* at

http://download.oracle.com/docs/cd/E14571_01/doc.1111/e10792/c03_security002.htm#insertedID3

11.6.1 Installing HTTP Server

Install a web server to be used as the front end to the Oracle WebLogic Server. In this guide, use Oracle HTTP Server (OHS) 11*g*, which is available after the installation of Web Tier Utilities 11.1.1.2.0.

11.6.2 Configure mod_wl_ohs

Perform similar steps as Section 11.4.2, "Configuring mod_wl_ohs" to configure **mod_wl_ohs**.

```
LoadModule weblogic_module "${ORACLE_HOME}/ohs/modules/mod_wl_ohs.so"

<IfModule weblogic_module>
<Location /cs>
  SetHandler weblogic-handler
  WebLogicHost <ucm-hostname>
  WebLogicPort <ucm-server-port>
</Location>

</IfModule>
```

11.6.3 Creating an AccessGate Object on OAM Access Server

Perform similar steps as Section 11.4.3, "Creating an AccessGate Object on OAM Access Server" to create the AccessGate object for UCM's HTTP Server.

```
java -jar oamcfgtool.jar mode=CREATE
app_domain=your_host_machine.company.com protected_uris=/cs
app_agent_password=<webgate_password> cookie_domain=.company.com
ldap_host=<oam_ldap_directory_server_host>
ldap_port=<oam_ldap_director_server_port>
ldap_userdn="<ldap_admin_user>"
```

```
ldap_userpassword=<ldap_admin_password>
oam_aaa_host=<access_server_host> oam_aaa_port=<access_server_port>
oam_aaa_mode=OPEN
```

> **Note:** Add web_domain to the script if this is an existing Web Tier.

11.6.4 Configuring WebGate for Global SSO Logout

Perform similar steps as Section 11.4.4 to register the ECM logout link as a Global SSO Logout.

```
/cs/logout.htm
```

11.6.5 Installing the WebGate Plug-in for the HTTP Server

Perform similar steps as Section 11.4.8, "Setting up Providers for OAM SSO in a WebLogic Domain" to install the WebGate plug-in for UCM's HTTP Server. You can skip this step if OBIEE uses an existing HTTP Server with WebGate plug-in.

11.6.6 Setting up Providers for OAM SSO in a WebLogic Domain

Perform similar steps as in Section 11.6.6, "Setting up Providers for OAM SSO in a WebLogic Domain" to set up the providers for OAM SSO in a WebLogic domain that UCM is deployed to.

11.7 Updating the OSL Configuration

The following configuration is required for OSL to operate in an SSO environment:

1. Update the `OSL_PROFILE_OPTION_VALUES`:

   Set the values for `OSL_SHOW_LOGOUT_LINK` in the `OSL_PROFILE_OPTION_VALUES` table as follows:

Table 11–1 Updating OSL_PROFILE_OPTION_VALUES

Value	Description
`OSL_SHOW_LOGOUT_LINK`	▪ Y (to display the logout link in Learning Tool and Learning Tool Admin) or ▪ N (to hide the logout link in Learning Tool and Learning Tool Admin)

2. Update the logout URL for Learning Tool and Learning Tool Admin.

   - Set the OSL_ADMIN_LOGOUT_URL as follows:

     ```
     http://<LT_WEB_HOST>:<LT_WEB_
     PORT>/LTAdminWeb/faces/logout.jspx
     ```

     where: <LT_WEB_HOST> and <LT_WEB_PORT> are the host name and port of the web server configured as a front end to provide access to the Learning Tool Admin application..

   - Set the OSL_LOGOUT_URL as follows:

     ```
     http://<LT_WEB_HOST>:<LT_WEB_PORT>/LTWeb/faces/logout.jsp
     ```

where: <LT_WEB_HOST> and <LT_WEB_PORT> are the host name and port of the web server configured as a front end to provide access to the Learning Tool application.

For information about the OSL configuration file where you must make these changes, see Section 9.1.7, "Updating Logout URL for Learning Tool and Learning Tool Admin".

12 Installing and Configuring Oracle Access Manager 11g

Oracle Access Manager 11*g* is the Oracle Fusion Middleware 11*g* single sign-on solution. Oracle Access Manager 11*g* is a Java-based enterprise-level security application that provides restricted access to confidential information and centralized authentication and authorization services. All existing access technologies in the Oracle Identity Management stack converge in Oracle Access Manager 11*g*.

A Web server, Application Server, or any third-party application must be protected by a WebGate or mod_osso instance that is registered with Oracle Access Manager as an agent to enforce policies. The agent acts as a filter for HTTP requests.

Oracle Access Manager 11g provides single sign-on (SSO), authentication, authorization, and other services to registered agents (in any combination) protecting resources. Agents include:

- OAM 11g WebGates
- OAM 10g WebGates
- IDM Domain Agent
- OSSO Agents (10g mod_osso)

Setting up OAM 11*g* is a two-step process. The setup includes installation of the necessary software components and configuration.

This chapter provides step-by-step instructions on how to configure OAM 11*g* as the single sign-on solution for OSL. Complete explanation of the OAM solution is available in "Part III, Single Sign-On, Policies, and Testing" in the *Oracle® Fusion Middleware Security Guide 11g Release 1 (11.1.1)* at: `http://download.oracle.com/docs/cd/E14571_01/doc.1111/e15478/toc.htm`.

12.1 Installing Required Components

OSL is certified to work with the following software components:

- Oracle Sun JDK 160
- Oracle Database 11.2
- Oracle Weblogic Server 10.3.5 and 10.3.3
- Oracle Fusion Middleware Repository Creation Utility 11.1.1.3.5 and 11.1.1.3.2
- Oracle Access Manager 11.1.1.5.0 and 11.1.1.3.0

- Oracle HTTP Server (OHS) 11.1.1.5.0 and 11.1.1.3.0
- OHS WebGate 11.1.1.5.0 and 11.1.1.3.0

12.1.1 Installing Oracle Sun JDK

You can obtain the Sun JDK 1.6.0 installation program from this URL: http://www.oracle.com/technetwork/java/javase/downloads/jdk-6u25-download-346242.html

12.1.2 Installing Oracle Database

To install the Oracle database, ensure that the prerequisites are met and the necessary operating system packages are installed.

To install the database:

1. Complete the instructions in "Chapter 2, Oracle Database Preinstallation Requirements" and "Chapter 4, Installing Oracle Database" of the *Oracle® Database Installation Guide 11g Release 2 (11.2) for Linux*.

   The installation instructions are available at http://download.oracle.com/docs/cd/E11882_01/install.112/e16763/toc.htm.

   > **Note:** Oracle recommends that you set the **Database Character Set** to **Unicode AL32UTF8** when installing the database.

2. When the installation is complete, verify that the Oracle instance is running.

   Run the following commands:

   ```
   export JAVA_HOME=<java home>
   For example, /opt/jdk1.6.0_25/


   export ORACLE_HOME= <Oracle home>
   For example, /u01/app/oracle/product/11.2.0/dbhome_1


   export PATH=$ORACLE_HOME/bin:$JAVA_HOME/bin:$PATH
   ```

to append Oracle home and Java home to the existing path.

Export ORACLE_SID =<SID used with Oracle installation>

Then issue this statement to determine whether the Oracle instance is running:

```
lsnrctl status
```

If the listener is not started, then start it by issuing this command: `lsnrctl startall`.

> **Note:** If you still cannot start the Oracle instance, ensure that the details provided in the ***tnsnames.ora*** and ***listener.ora*** files are correct. You can also run the network configuration assistant using the command `netca`.

Verify the database installation in the Oracle installation directory you chose during the installation, for example, ***/u01/app/oracle/product***.

12.1.3 Installing WebLogic Server

Complete the installation instructions at `http://download.oracle.com/docs/cd/E14571_01/doc.1111/e14142/toc.htm`.

After installing WebLogic Server, a middleware home directory is created, for example, ***/opt/oracle/Middleware/***.

12.1.4 Creating Database Schema for OAM Using the Repository Creation Utility (RCU)

To install RCU 11.1.1..5.0 or 11.1.1.3.2, complete the instructions at: `http://download.oracle.com/docs/cd/E14571_01/install.1111/e12002/before002.htm#BABJDDEH`.

When you run RCU, create and load only the **Identity Manager - Oracle Access Manager** schema for the Oracle Access Manager you are installing. By default, the **AS Common Schema - Audit Services** schema is also selected.

Do not select any other schema available in RCU.

When you create a schema, remember the schema owner and password shown in RCU.

12.1.5 Installing Oracle Access Manager 11.1.1.5.0 or 11.1.1.3.0

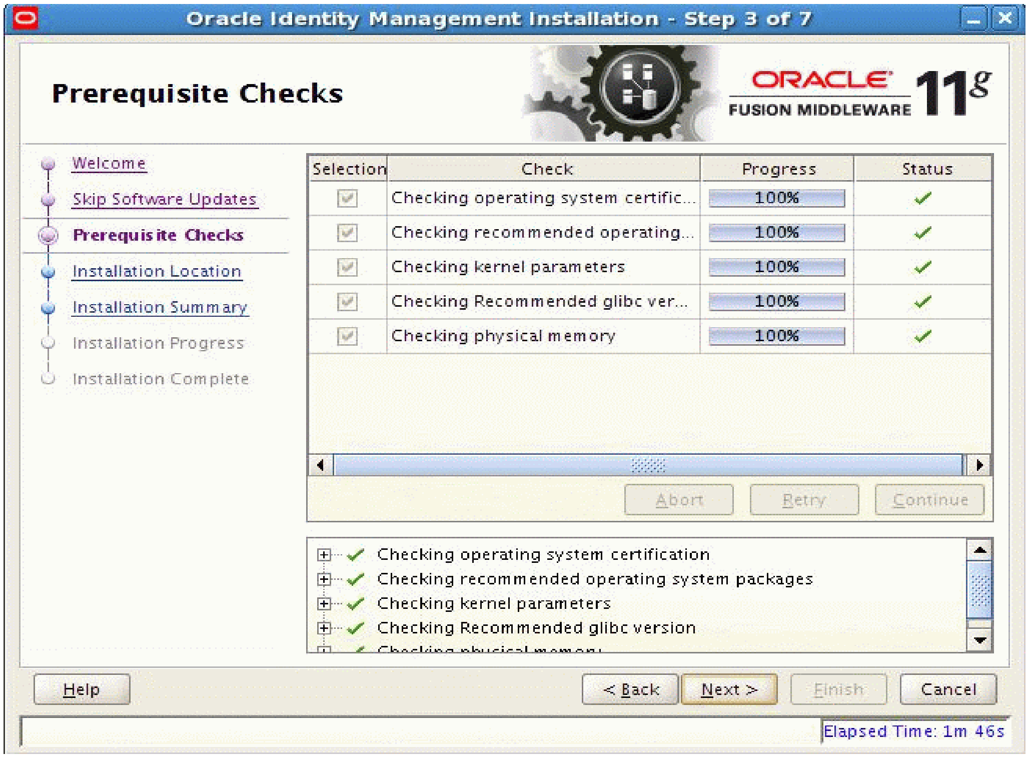
The installation of Oracle Access Manager 11.1.1.5.0 or 11.1.1.3.0 is quick if you have installed the software listed in Section 12.1.1, "Installing Oracle Sun JDK" to Section 12.1.4, "Creating Database Schema for OAM Using the Repository Creation Utility (RCU)".

Follow these steps to complete the installation:

1. Ensure that the prerequisites are installed.
2. Install OAM by following the instructions at: `http://download.oracle.com/docs/cd/E14571_01/install.1111/e12002/toc.htm`.

   The OAM installation program verifies whether the necessary operating system libraries are installed. The following screen illustrates how the OAM installation program identifies the missing libraries required for the installation.

Figure 12–1 Oracle Access Manager Installation - Verification of prerequisites



Selection	Check	Progress	Status
☑	Checking operating system certific...	100%	✓
☑	Checking recommended operating...	100%	✓
☑	Checking kernel parameters	100%	✓
☑	Checking Recommended glibc ver...	100%	✓
☑	Checking physical memory	100%	✓

✓ Checking operating system certification

✓ Checking recommended operating system packages

✓ Checking kernel parameters

✓ Checking Recommended glibc version

Elapsed Time: 1m 46s

Install any missing libraries by running this command: `rpm -ivh <file.rpm>`.

3. Configure the domain.

   For configuration information, see **Section 17.5 OAM in a New WebLogic Domain** of *Oracle® Fusion Middleware Installation Guide for Oracle Identity Management 11g Release 1 (11.1.1)* at: `http://download.oracle.com/docs/cd/E14571_01/install.1111/e12002/oam005.htm#CACEDFFF`

   The domain folder will be:

   <OAM Middleware Home>/user_projects/domains/<your domain name>

4. Start the servers.

   For information about starting the servers, see **Section 17.9 Starting the Servers** of *Oracle® Fusion Middleware Installation Guide for Oracle Identity Management 11g Release 1 (11.1.1)* at: `http://download.oracle.com/docs/cd/E14571_01/install.1111/e12002/oam009.htm#CACHJHCG`.

5. Verify the OAM installation.

   For verification instructions, see **Section 17.11 Verifying the OAM Installation** of *Oracle® Fusion Middleware Installation Guide for Oracle Identity Management 11g Release 1 (11.1.1)* at: `http://download.oracle.com/docs/cd/E14571_01/install.1111/e12002/oam011.htm`.

   Alternatively, verify the OAM home directory at **/***<Oracle middleware home directory>***/Oracle_IDM1**.

12.1.6 Installing Oracle HTTP Server

To set up OAM agents, you must install an HTTP Server for OAM.

1. Install OHS.

   To install OHS 11.1.1.2.0 and then install OHS patch 11.1.1.3.0 or 11.1.1.5.0, see **Chapter 2 Installing Oracle Web Tier** of the *Oracle® Fusion Middleware Installation Guide for Oracle Web Tier 11g Release 1 (11.1.1)* at: `http://download.oracle.com/docs/cd/E14571_01/doc.1111/e14260/install.htm#WTINS101`.

2. Verify the OHS installation.

   For verification instructions, see **Section 2.5 Verifying the Installation** of the *Oracle® Fusion Middleware Installation Guide for Oracle Web Tier 11g Release 1 (11.1.1)* at: `http://download.oracle.com/docs/cd/E14571_01/doc.1111/e14260/install.htm#WTINS101`.

   OHS and Web cache must be running at corresponding ports. The OHS home directory is <*Oracle middleware home directory*>**/Oracle_WT1**.

12.1.7 Installing and Configuring Oracle HTTP Server Webgate 11*g*

Install and configure Oracle HTTP Server Webgate Oracle HTTP Server Webgate 11.1.1.3.0 or 11.1.1.5.0 after installing OHS. The GCC libraries are necessary to install Oracle Webgate, which is a C++ installation program.

1. Obtain the GCC libraries.

   See **Section 23.2.4 Installing Third-Party GCC Libraries (Linux and Solaris Operating Systems Only)** of *Oracle® Fusion Middleware Installation Guide for Oracle Identity Management 11g Release 1 (11.1.1)* at: `http://download.oracle.com/docs/cd/E14571_01/install.1111/e12002/webgate002.htm#CACBBGEC`.

2. Install the Webgate.

   See **Section 23.3 Installing Oracle HTTP Server 11g Webgate for Oracle Access Manager** of *Oracle® Fusion Middleware Installation Guide for Oracle Identity Management 11g Release 1 (11.1.1)* at: `http://download.oracle.com/docs/cd/E14571_01/install.1111/e12002/webgate003.htm#CACJIABJ`.

3. Complete the post-installation tasks.

   See **Section 23.4 Post-Installation Steps** of *Oracle® Fusion Middleware Installation Guide for Oracle Identity Management 11g Release 1 (11.1.1)* at: `http://download.oracle.com/docs/cd/E14571_01/install.1111/e12002/webgate003.htm#CACJIABJ`.

12.2 Configuring SSO for OSL Learning Tool

Complete the following tasks to configure Oracle Access Manager (OAM) with Oracle Student Learning (OSL).

12.2.1 Step 1: Configuring mod_wl_ohs.conf file

Manually edit the **mod_wl_ohs.conf** file located in the <*Oracle middleware home directory*>**/Oracle_WT1/instances/instance1/config/OHS/ohs1/**.

Note: This is a template to configure the **mod_weblogic** file.

This empty block is needed to save mod_wl related configuration from EM to this file when changes are made at the Base Virtual Host Level.

```
LoadModule weblogic_module   "${ORACLE_HOME}/ohs/modules/mod_wl_ohs.so"
<IfModule weblogic_module>
#      WebLogicHost <WEBLOGIC_HOST>
#      WebLogicPort <WEBLOGIC_PORT>
#      Debug ON
#      WLLogFile /tmp/weblogic.log
#      MatchExpression *.jsp
</IfModule>

<Location /LTWeb>
     SetHandler weblogic-handler
     WebLogicHost yourserver.com
     WebLogicPort 7003
     WLCookieName OSLLTSESSIONID
</Location>
<Location /LTAdminWeb>
     SetHandler weblogic-handler
     WebLogicHost yourserver.com
     WebLogicPort 7003
     WLCookieName OSLLTASESSIONID
</Location>

# <Location /weblogic>
#      SetHandler weblogic-handler
#      PathTrim /weblogic
#      ErrorPage  http:/WEBLOGIC_HOME:WEBLOGIC_PORT/
# </Location>
```

12.2.2 Step 2: Creating an AccessGate Object on OAM Access Server

Create an AccessGate object for the Learning Tool and Learning Tool Admin's HTTP Server. Then associate the object with OAM's Access Server.

1. Create a WebGate:

   a. Log in to OAM 11*g*.

   b. Click the **System Configuration** tab.

   c. Navigate to **Agents** > **OAM Agents** > **11g Webgates**.

   d. Click **Actions**.

   e. Select **Create**.

   f. In the page that opens, do the following:

- Specify the name of the agent to be created. This name is is the host identifier and the preferred host.
- Ensure that the option for **Security** is **Open**.

   g. Click **Apply**.

   h. Open the agent by navigating to **Agents** > **OAM Agents** > **11g Webgates** > <*name of the agent*>.

   i. Provide the following details:

      * **Access Client Password** - password
      * **Preferred Host** - name of the agent

* **Logout Callback URL** - /oam_logout_success

* **Logout Redirect URL** - http://<[*server IP address*].com:[*port*]/oam/server/logout

Ensure that you are using the correct port number.

j. Save the settings.

See also "Chapter 9, Registering Partners (Agents and Applications) by Using the Console" of the Oracle Fusion Middleware Administrator's Guide for *Oracle Access Manager with Oracle Security Token Service 11g Release 1 (11.1.1)* at `http://download.oracle.com/docs/cd/E21764_01/doc.1111/e15478/agents.htm#BABDHBBC`.

2. Create an authentication policy called *LTWebPolicy*.

   a. Go to **Policy Configuration > Application Domains > [Webgate agent name] > Authentication Policies**.

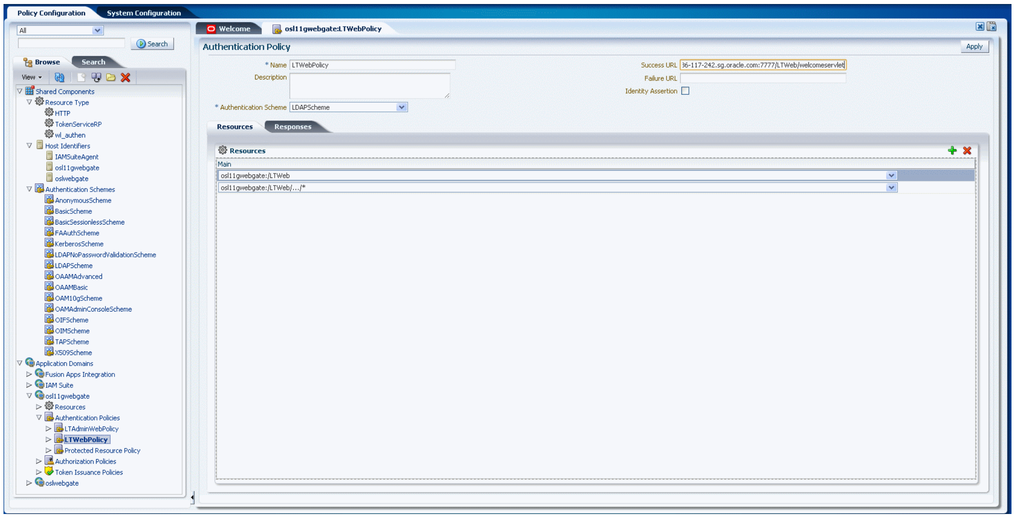
   b. In Name, enter **LTWebPolicy**.

   c. In Authentication Scheme, enter **LDAPScheme**.

   d. In Success URL, enter:

      http://<host name or IP address where OHS is installed>:<OHS port number>/LTWeb/welcomeservlet

Figure 12–2 Authentication Policy



Authentication Policy

* Name: LTWebPolicy

Description:

* Authentication Scheme: LDAPScheme

Success URL: 36-117-242.sg.oracle.com:7777/LTWeb/welcomeservlet

Failure URL:

Identity Assertion ☐

Resources

Main

osl11gwebgate:/LTWeb

osl11gwebgate:/LTWeb/…/*

3. Create an authentication policy called *LTAdminWebPolicy*.

   a. Go to **Policy Configuration > Application Domains > [Webgate agent name] > Authentication Policies**.

   b. In Name, enter **LTAdminWebPolicy**.

   c. In Authentication Scheme, enter **LDAPScheme**.

   d. In Success URL, enter:

      http://<host name or IP address where OHS is installed>:<OHS port number>/LTAdminWeb/faces/AdminHome.jspx

4. Create resources.

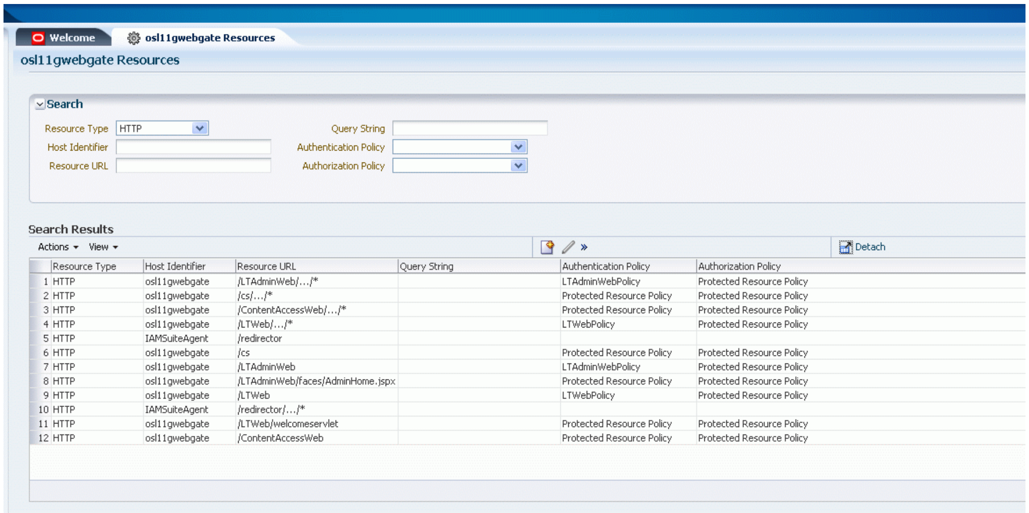
a. Click **Policy Configuration** > **Application Domains** > [*WebGate agent name*] > **Resources**.

b. Click **Create**.

c. In the page that appears, provide the following details:

* **Type**: HTTP
* **Host Identifier**: name of the agent
* **Resource URL**: add the following resource URLS
/LTWeb
/LTWeb/…/*
/LTAdminWeb
/LTAdminWeb/.../*
/LTWeb/welcomeservlet
/LTAdminWeb/faces/AdminHome.jspx

Figure 12–3 Adding Resources



osl11gwebgate Resources

Search

Resource Type: HTTP
Host Identifier:
Resource URL:
Query String:
Authentication Policy:
Authorization Policy:

Search Results

	Resource Type	Host Identifier	Resource URL	Query String	Authentication Policy	Authorization Policy
1	HTTP	osl11gwebgate	/LTAdminWeb/…/*		LTAdminWebPolicy	Protected Resource Policy
2	HTTP	osl11gwebgate	/cs/…/*		Protected Resource Policy	Protected Resource Policy
3	HTTP	osl11gwebgate	/ContentAccessWeb/…/*		Protected Resource Policy	Protected Resource Policy
4	HTTP	osl11gwebgate	/LTWeb/…/*		LTWebPolicy	Protected Resource Policy
5	HTTP	IAMSuiteAgent	/redirector			
6	HTTP	osl11gwebgate	/cs		Protected Resource Policy	Protected Resource Policy
7	HTTP	osl11gwebgate	/LTAdminWeb		LTAdminWebPolicy	Protected Resource Policy
8	HTTP	osl11gwebgate	/LTAdminWeb/faces/AdminHome.jspx		Protected Resource Policy	Protected Resource Policy
9	HTTP	osl11gwebgate	/LTWeb		LTWebPolicy	Protected Resource Policy
10	HTTP	IAMSuiteAgent	/redirector/…/*			
11	HTTP	osl11gwebgate	/LTWeb/welcomeservlet		Protected Resource Policy	Protected Resource Policy
12	HTTP	osl11gwebgate	/ContentAccessWeb		Protected Resource Policy	Protected Resource Policy

5. To add resources for OAM 11.1.1.3.0:

   a. Navigate to **Click Policy Configuration** > **Application Domains** > [*WebGate name*] > **Authentication Policies** > **Protected Resource Policy**.

   b. Add the resource URLS **/LTWeb/welcomeservlet** and **/LTAdminWeb/faces/AdminHome.jspx** in Resources.

   c. Navigate to **Click Policy Configuration > Application Domains > [WebGate name] > Authentication Policies > LTWebPolicy**.

   d. Add the resource URLs **/LTWeb** and **/LTWeb/.../*** in Resources.

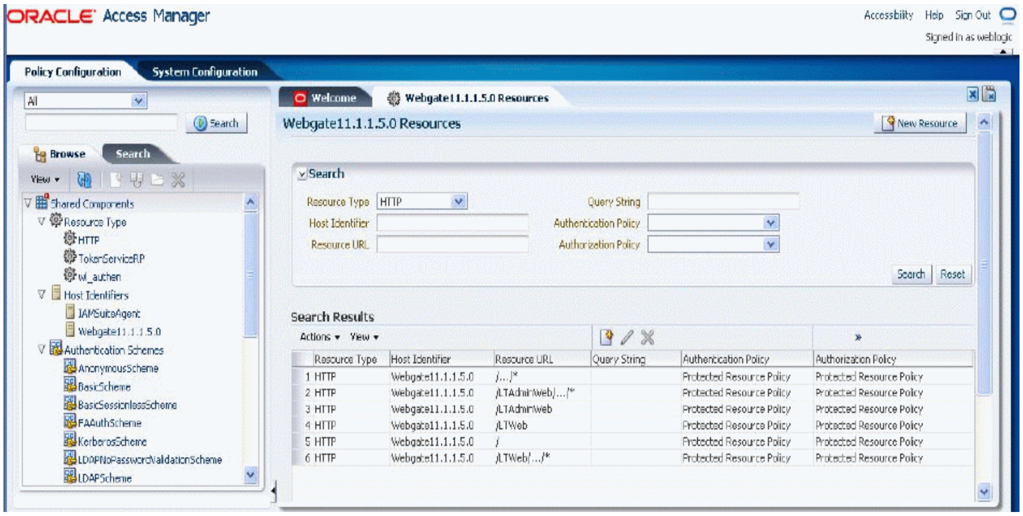
   e. Navigate to **Click Policy Configuration > Application Domains > [WebGate name] > Authentication Policies > LTAdminWebPolicy**.

   f. Add the resource URLs **/LTAdminWeb** and **/LTAdminWeb/.../*** in Resources.

   g. Navigate to **Policy Configuration** > **Application Domains** > [*WebGate name*] > **Authorization Policies** > **Protected Resource Policy**.

   h. Add all the resources URLs you created earlier using the list under **Resources**.

Figure 12–4 Adding Resources to the Authentication Policy



Webgate11.1.1.5.0 Resources

Search

Resource Type: HTTP

Host Identifier:

Resource URL:

Query String:

Authentication Policy:

Authorization Policy:

Search Results

	Resource Type	Host Identifier	Resource URL	Query String	Authentication Policy	Authorization Policy
1	HTTP	Webgate11.1.1.5.0	/…/*		Protected Resource Policy	Protected Resource Policy
2	HTTP	Webgate11.1.1.5.0	/LTAdminWeb/…/*		Protected Resource Policy	Protected Resource Policy
3	HTTP	Webgate11.1.1.5.0	/LTAdminWeb		Protected Resource Policy	Protected Resource Policy
4	HTTP	Webgate11.1.1.5.0	/LTWeb		Protected Resource Policy	Protected Resource Policy
5	HTTP	Webgate11.1.1.5.0	/		Protected Resource Policy	Protected Resource Policy
6	HTTP	Webgate11.1.1.5.0	/LTWeb/…/*		Protected Resource Policy	Protected Resource Policy

6. To add resources for OAM 11.1.1.5.0:

   1. From the **Protection Level** list, choose **Protected**.
   2. For resources /LTWeb and /LTweb/.../*: from the **Authentication Policy** list, choose **LTWebPolicy**.
   3. For resources /LTAdminWeb and /LTAdminWeb/.../*: from the **Authentication Policy** list, choose **LTAdminWebPolicy**.
   4. For resources /LTWeb/welcomeservlet and /LTAdminWeb/faces/AdminHome.jspx: from the Authentication Policy list, choose **Protected Resource Policy**.
   5. From the **Authorization Policy** list, choose **Protected Resource Policy**.

   For this version of OAM, you do not have to complete step 3.

7. Add the data source to point to the OID (used for LT) for the OAM agent.

   a. Click the **System Configuration** tab.

   b. Navigate to **Data Sources** > **UserIdentityStore**.

   c. Click **Create**.

   d. Enter the following information:

   * **Name** - name of the data source
   * **LDAP Provider** - OID (Oracle Internet Directory)

   e. Click **Apply**.

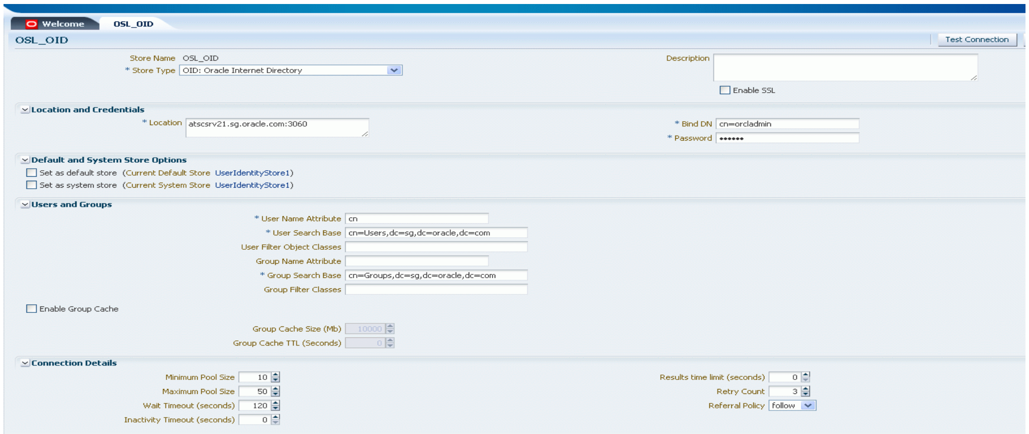
   f. Open the data source you created.

   g. Enter the following details:

   * **LDAP URL** - LDAP server URL
   * **Principal** - LDAP user name
   * **Credential** - LDAP password
   * **User Search Base** - An example is: `cn=Users,dc=sg,dc=oracle,dc=com`
   * **Group Search Base** - An example is:
`cn=Groups,dc=sg,dc=oracle,dc=com`

h. Click **Apply**.

Figure 12–5 Providing information about the data source



OSL_OID

Store Name OSL_OID
* Store Type OID: Oracle Internet Directory
Description
□ Enable SSL

Location and Credentials
* Location atscsrv21.sg.oracle.com:3060
* Bind DN cn=orcladmin
* Password ••••••

Default and System Store Options
□ Set as default store (Current Default Store UserIdentityStore1)
□ Set as system store (Current System Store UserIdentityStore1)

Users and Groups
* User Name Attribute cn
* User Search Base cn=Users,dc=sg,dc=oracle,dc=com
User Filter Object Classes
Group Name Attribute
* Group Search Base cn=Groups,dc=sg,dc=oracle,dc=com
Group Filter Classes
□ Enable Group Cache
Group Cache Size (Mb) 10000
Group Cache TTL (Seconds) 0

Connection Details
Minimum Pool Size 10
Maximum Pool Size 50
Wait Timeout (seconds) 120
Inactivity Timeout (seconds) 0
Results time limit (seconds) 0
Retry Count 3
Referral Policy follow

i. Verify the connection.

8. Click the **System Configuration** tab.

9. Click **Access Manager Settings > Authentication Modules > LDAP Authentication Module > LDAP**.

10. Make sure that the User Identity Store for LDAP authentication module is the data store you created in step 7.

11. Click the **System Configuration** tab.

12. Select the Webgate agent you created.

    The right hand side pane displays the details about the agent.

13. In the **Logout URL** field, enter the following information:

    - /LTWeb/faces/logout.jspx
    - /LTAdminWeb/faces/logout.jspx

> **Note:** Unlike in OAM 11.1.15.0, in OAM 11.1.1.3.0, steps 10 through 12 cannot be performed in the OAM console. You must edit the OAM configuration file as described in step 13.

14. Edit the **oam-config.xml** file in the */opt/oracle/Middleware/user_projects/domains/base_domain1/config/fmwconfig* directory.

    a. Search for the agent name.

    b. Include the following information:

```
<Setting Name="logOutUrls" Type="htf:list">
      <Setting Name="0"
Type="xsd:string">/LTWeb/faces/logout.jspx</Setting>
      <Setting Name="1"
Type="xsd:string">/LTAdminWeb/faces/logout.jspx</Setting>
</Setting>
```

This is to include uppercase for the logout urls. This cannot be done through the oam console UI.

15. To enable the `ssoCookie:httponly challenge` parameter:

    By default, the `ssoCookie:httponly challenge` parameter is enabled in an authentication scheme. Enabling this parameter helps to prevent the JavaScript running in the browser from accessing the **ObSSOCookie**. This cookie provides a more secure environment. However, browser support for the `ssoCookie:httponly challenge` parameter is inconsistent. Such inconsistency can cause Java Applets to not run correctly. Therefore, to support the audio applet required in the Learning Tool, disable the `ssoCookie:httponly challenge` parameter. The following table describes how to disable this parameter for OAM versions 11.1.1.3.0 and 11.1.1.5.0:

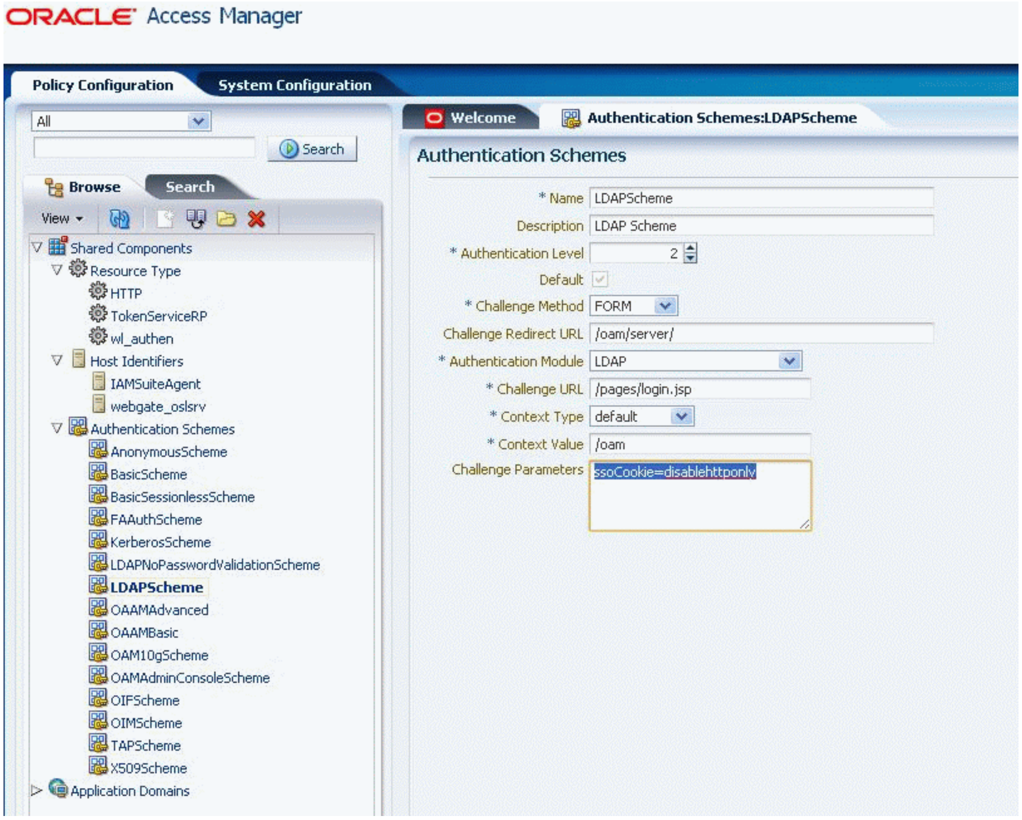
Table 12–1 Disabling ssoCookie:httponly challenge parameter in OAM versions 11.1.1.3.0 and 11.1.1.5.0

OAM 11.1.1.3.0	OAM 11.1.1.5.0
1. Stop the OAM server.	1. Log in to the OAM console.

2. Edit the **oam-config.xml** file as follows:
`<Setting Name="SSOCookieParam"`
`Type="xsd:string">disablehttponly</Setting>`
	2. Under **Policy configuration** in the left pane, select **Shared Components** > **Authentication Schemes** > **Select LDAP Scheme**.
	The LDAPScheme window opens in the right pane.

3. Save the file.	3. In the **Challenge Parameter** field, enter `ssoCookie=disablehttponly`.
4. Start the OAM server.	

Figure 12–6 Disabling ssoCookie:httponly challenge parameter in OAM 11.1.1.5.0



* Name	LDAPScheme
Description	LDAP Scheme
* Authentication Level	2
Default	☑
* Challenge Method	FORM
Challenge Redirect URL	/oam/server/
* Authentication Module	LDAP
* Challenge URL	/pages/login.jsp
* Context Type	default
* Context Value	/oam
Challenge Parameters	ssoCookie=disablehttponly

12.2.3 Step 3: Setting up Providers for OAM SSO in the WebLogic Domain

Configure providers in the WebLogic security domain where OSL is deployed to perform single sign-on with the Oracle Access Manager Identity Asserter. You must configure and order several authentication provider types.

1. Log in to the WebLogic Administration Console.
2. Add the OAM Identity Asserter:
   a. Click **Security Realms**.
   b. Click the default realm name, for example, *myrealm*.
   c. Cick **Providers**.
   d. Click **Authentication** > **New**.
   e. Complete the following information:

      (i) In the **Name** field, enter the name of the OAM Identity Asserter.
      (ii) In the **Type** field, enter **OAMIdentityAsserter**.
      (iii) In the **Authentication Providers** table, click the new authenticator.
      (iv) Click the **Common** tab.
      (v) Set the **Control Flag** to **REQUIRED**.

You can find the **ObSSOCookie** under **Active Types**, on the **Available** list. You can then move **OAM_REMOTE_USER** under **Chosen**.

   f. Click **Save**.

3. For the remaining providers such as **OID**, **Default Authenticator**, and **DefaultIdentityAsserter**:

   a. Click the **Common** tab.

   b. Set the **Control Flag** to **SUFFICIENT**.

   c. Click **Save**.

   d. Reorder the providers:

      (i) Click **Security Realms**.
      (ii) Click the default realm name, for example, *myrealm*.
      (ii) Click **Providers**.
      (iii) On the **Summary** page where providers are listed, click **Reorder**.
      (iv) On the **Reorder Authentication Providers** page, select a provider.
      (v) Use the arrows beside the list to order the providers as shown in the following table:

Provider	Property
OAMIdentityAsserter	(REQUIRED)
OID	(SUFFICIENT)
Default Authenticator	(SUFFICIENT)
DefaultIdentityAsserter	(SUFFICIENT)

   e. Click **OK** to save the changes.

   f. In the **Change Center**, click **Activate Changes**.

   g. Reboot Oracle WebLogic Server.

12.2.4 Step 4: Copying the Webgate Artifacts

Perform these steps to copy the Webgate artifacts.

1. In the IDM tier, go to <WebLogic_idm_domain>/output/webgate_oslsrv, and then copy **ObAccessClient.xml** and **cwallet.sso**.
2. Go to the Apps tier, and then paste the files in /instances/instance1/config/OHS/ohs1/webgate/config.
3. Restart the Web tier instance.

The OAM Webgate home directory is *<Oracle Middleware home directory>/<Oracle_OAMWebgate>*.

12.2.5 Step 5: Configuring web.xml for the OAM Identity Asserter

This section describes how to configure the ***web.xml*** file for the OAM Identity Asserter.

1. Find the ***web.xml*** file located in these directories:

   - OSL installation directory / LearningTool / Configuration / LearningTool / DeploymentDescriptors for Learning Tool
   - OSL installation directory / LearningTool / Configuration / Admin / DeploymentDescriptors for Learning Tool Admin

2. Update the `login-config` section of the ***web.xml*** file with the following information:

   ```
   <login-config>
   <auth-method>CLIENT-CERT</auth-method>
   <realm-name>myRealm</realm-name>
   </login-config>

   <!--login-config>
   <auth-method>FORM</auth-method>
   <form-login-config>
   <form-login-page>/faces/loginView.jspx</form-login-page>
   <form-error-page>/faces/loginErrorView.jspx</form-error-page>
   </form-login-config>
   </login-config-->
   ```

3. Run the OSL LT Configurator using Ant:

   ```
   [~]#cd $DOMAIN_HOME/bin
   [bin]#source./setDomainEnv.sh
   [bin]#cd [OSL Home directory]/LearningTool/Scripts
   [Scripts]#ant repackageLT
   ```

   The OSLLearningToolApp.ear located in [OSL Home directory]/LearningTool will be updated

4. Redeploy LT by running the deployment using Ant:

   ```
   [~]#cd $DOMAIN_HOME/bin
   [bin]#source ./setDomainEnv.sh
   [bin]#cd [OSL Home directory]/LearningTool/Scripts
   [Scripts]#ant deployLT
   ```

If OSL is installed and configured, you can log in to LT using the SSO with this URL: http://*<OHS host name>*:*<OHS port>*/LTWeb.

Similarly, you can log into LTAdminWeb using the SSO with this URL

http://<OHS host name>:<OHS port>/LTAdminWeb

12.2.6 Step 6: Configuring the Session Timeout

The WebLogic application session timeout value must be the same as the WebGate session timeout value.

To set the WebLogic session timeout, modify the `web.xml` as follow:

```
<session-config>
  <session-timeout>60</session-timeout>
</session-config>
```

Note in `web.xml` the session time-out is set in minutes.

To set the WebGate session time-out, modify the **Max Session Time (seconds)** in OAM console for the webgate created.

If the value you set in the WebLogic session timeout is greater than the current values specified in the OAM Session Lifetime and Idle Timeout, you must change the values of Session Lifetime and Idle Timeout accordingly.

To edit the OAM common session settings:

1. Log in to Oracle Access Manager.
2. Click **System Configuration**.
3. From the Common Configuration panel, double-click **Common Settings**.
4. In the Session area:
   a. In Session Lifetime, increase the current value.
   b. In IdleTimeout (minutes), increase the current value.
5. Click **Apply**.

12.2.7 Step 7: Calling Learning Tool Logout from other Applications

In case the Global SSO Logout is triggered by another application, the Learning Tool session will still be active. Therefore, the session data will not be cleaned up until the session times out.

To clean up the Learning Tool session data after the Global SSO Logout occurs from another application, you need to send an `http` request to the below Learning Tool URL:

```
http://<LT_WEB_HOST>:<LT_WEB_PORT>/LTWeb/logout.jsp
```

This URL will clear the Learning Tool session and then perform an `http` redirect to the URL.

12.3 Configuring SSO for OBIEE

Oracle Business Intelligence (OBIEE) 11g (11.1.1.5.0) is deployed on an Oracle WebLogic Server. For information on configuring OAM as the SSO solution for OBIEE, follow the steps in Section 12.2, "Configuring SSO for OSL Learning Tool."

12.3.1 Installing HTTP Server

When you install Web Tier Utilities 11.1.1.3.0, you can use Oracle HTTP Server (OHS) 11g as a Web server that acts as the front end to the Oracle WebLogic Server.

It is not necessary to perform this step if your OBIEE uses an existing HTTP server.

12.3.2 Configure mod_wl_ohs

If the OBIEE.ear file is deployed on a WebLogic Server, follow the steps in Section 12.2.1, "Step 1: Configuring mod_wl_ohs.conf file" to configure **mod_wl_ohs**.

```
LoadModule weblogic_module "${ORACLE_HOME}/ohs/modules/mod_wl_ohs.so"

<IfModule weblogic_module>

<Location /analytics>
   SetHandler weblogic-handler
   WebLogicHost <obiee-host-name>
   WebLogicPort <obiee-port>
</Location>

</IfModule>
```

12.3.3 Creating an AccessGate Object on OAM Access Server

Perform similar steps as Section 12.2.2, "Step 2: Creating an AccessGate Object on OAM Access Server" to create the AccessGate object for the HTTP server of OBIEE.

> **Note:** You can use the same agent you created in Section 12.2.2.

To add protected resources:

1. Click **Policy Configuration** > **Application Domains** > [*WebGate name*] > **Resources** > **Create**.
2. Added resources:

   - /analytics

   - /analytics/…/*

   Add the new resource to the following:

   - Authentication Policies > Protected Resource Policy
   - Authorization Policies > Protected Resource Policy

12.3.4 Installing the WebGate Plug-in for the HTTP Server

Perform similar steps as Section 12.1.7, "Installing and Configuring Oracle HTTP Server Webgate 11g" to install the WebGate plug-in for OBIEE's HTTP Server. Ignore this step if OBIEE uses an existing HTTP Server with WebGate plug-in.

12.3.5 Creating Oracle BI Server Impersonator User

Perform similar steps as in Section 12.3.7, "Configuring BI Presentation Services to Operate in the SSO Environment".

12.3.6 Adding the Impersonator Credentials to Oracle BI Presentation Services Credential Store

Perform similar steps as Section 12.3.8, "Setting up Providers for OAM SSO in a Weblogic domain".

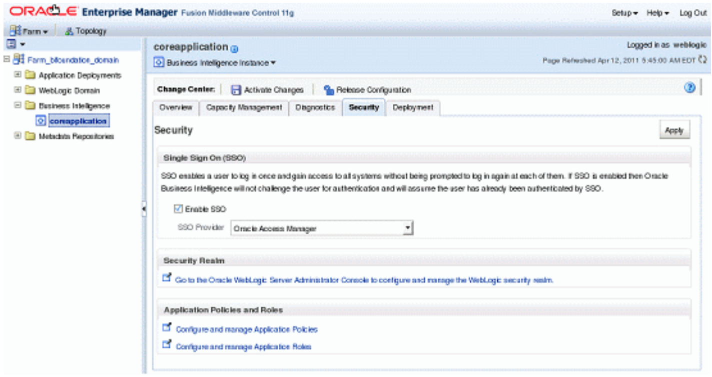
12.3.7 Configuring BI Presentation Services to Operate in the SSO Environment

To enable SSO:

1. Log in to OBIEE at

   `http://[OBIEE server:port]/em`.
2. Click **Farm_<OBIEEDomain>_domain** > **Business Intelligence** > **Coreapplication**.
3. Click the **Security** tab.
4. Select **Enable SSO**.
5. Select **SSO Provider: Oracle Access Manager.**
6. Click **Apply and Activate Changes**.

Figure 12–7 Enabling SSO



Security

Single Sign On (SSO)

SSO enables a user to log in once and gain access to all systems without being prompted to log in again at each of them. If SSO is enabled then Oracle Business Intelligence will not challenge the user for authentication and will assume the user has already been authenticated by SSO.

☑ Enable SSO

SSO Provider: Oracle Access Manager

Security Realm

Go to the Oracle WebLogic Server Administrator Console to configure and manage the WebLogic security realm.

Application Policies and Roles

Configure and manage Application Policies

Configure and manage Application Roles

12.3.8 Setting up Providers for OAM SSO in a Weblogic domain

Perform similar steps as Section 12.2.3, "Step 3: Setting up Providers for OAM SSO in the WebLogic Domain" to set up the providers for OAM SSO in a Weblogic domain to which OBIEE is deployed.

12.4 Configuring SSO for UCM

Oracle Universal Content Management (Oracle UCM) 11*g* Release 1 (11.1.1) is deployed on an Oracle WebLogic Server. The steps to configure OAM as the SSO solution for UCM is therefore similar to the steps described in section Section 10.2, "Configuring SSO for Learning Tool."

For more detailed explanation of configuring SSO for UCM 11*g*, you can read Chapter 4.2.3 "Configuring Oracle UCM to Use Single Sign-On" in the *Oracle® Fusion Middleware System Administrator's Guide for Content Server 11g Release 1 (11.1.1)* at

`http://download.oracle.com/docs/cd/E14571_01/doc.1111/e10792/c03_security002.htm#insertedID3`

12.4.1 Installing HTTP Server

When you install Web Tier Utilities 11.1.1.3.0, you can use Oracle HTTP Server (OHS) 11g as a Web server that acts as the front end to the Oracle WebLogic Server.

It is not necessary to perform this step if your UCM uses an existing HTTP server.

12.4.2 Configure mod_wl_ohs

Perform similar steps as Section 12.3.2, "Configure mod_wl_ohs" to configure **mod_wl_ohs**.

```
LoadModule weblogic_module "${ORACLE_HOME}/ohs/modules/mod_wl_ohs.so"

<IfModule weblogic_module>

<Location /cs>
  SetHandler weblogic-handler
  WebLogicHost <ucm-hostname>
  WebLogicPort <ucm-server-port>
</Location>

</IfModule>
```

12.4.3 Creating an AccessGate Object on OAM Access Server

Perform similar steps as Section 12.3.3, "Creating an AccessGate Object on OAM Access Server" to create the AccessGate object for the HTTP server for UCM.

> **Note:** You can use the same agent you created in Section 12.2.2.

To add protected resources:

1. Click **Policy Configuration** > **Application Domains** > [*WebGate name*] > **Resources** > **Create**.
2. Added resources:

   - /cs

   - /cs/…/*

   - /ContentAccessWeb

   - / ContentAccessWeb/…/*

   Add the new resource to the following:

   - Authentication Policies > Protected Resource Policy
   - Authorization Policies > Protected Resource Policy

12.4.4 Configuring WebGate for Global SSO Logout

Perform similar steps as Section 12.2.7, "Step 7: Calling Learning Tool Logout from other Applications" to register the ECM logout link as a Global SSO Logout.

```
/cs/logout.htm
```

12.4.5 Installing the WebGate Plug-in for the HTTP Server

Perform similar steps as Section 12.3.4, "Installing the WebGate Plug-in for the HTTP Server" to install the WebGate plug-in for UCM's HTTP Server. You can skip this step if UCM uses an existing HTTP Server with WebGate plug-in.

12.4.6 Setting up Providers for OAM SSO in a WebLogic Domain

Perform similar steps as Section 12.2.3, "Step 3: Setting up Providers for OAM SSO in the WebLogic Domain" to set up the providers for OAM SSO in a WebLogic domain that UCM is deployed to.

12.5 Updating the OSL Configuration

The following configuration is required for OSL to operate in an SSO environment:

1. Update the `OSL_PROFILE_OPTION_VALUES`:

   Set the values for `OSL_SHOW_LOGOUT_LINK` in `OSL_PROFILE_OPTION_VALUES` table as follows:

Table 12–2 Updating OSL_PROFILE_OPTION_VALUES

Value	Description
`OSL_SHOW_LOGOUT_LINK`	■ Y (to display the logout link in Learning Tool and Learning Tool Admin) or ■ N (to hide the logout link in Learning Tool and Learning Tool Admin)

2. Update the logout URL for LearningTool and LearningToolAdmin in osl_configuration.properties file located in:

   [OSL Home directory]/LearningTool/Configuration/LearningTool/DeploymentDescriptors.

   a. Set OSL_ADMIN_LOGOUT_URL as follows:

      http://<LT_WEB_HOST>:<LT_WEB_PORT>/LTAdminWeb/faces/logout.jspx

      where:

      <LT_WEB_HOST> and <LT_WEB_PORT> are the host name and port of the Web server configured as a front end to provide access to the Learning Tool Admin application

   b. Set OSL_LOGOUT_URL as follows:

      http://<LT_WEB_HOST>:<LT_WEB_PORT>/LTWeb/faces/logout.jsp

      where:

      <LT_WEB_HOST> and <LT_WEB_PORT> are the host name and port of the web server configured as a front end to provide access to the Learning Tool application

   For information about the OSL configuration file where you must make these changes, see Section 9.1.7, "Updating Logout URL for Learning Tool and Learning Tool Admin".

12.6 Modifying Oracle Access Manager Cache Settings

By default, the Cache Pragma Header and Cache Control Header parameters are set to no-cache. This setting prevents Webgate from caching data at the Web server application and a user’s browser. To improve the performance of Webgate, you should set Cache Pragma Header and Cache Control Header values to public.

1. Log in to Oracle Access Manager.
2. Click **System Configuration**.
3. From Access Manager Settings, click **SSO Agents > OAM Agents**.
4. In the Search panel, click **Search**.
5. From the Search Results panel, select the Webgate agent you created.
6. In Cache Pragma Header, enter **public**.
7. In Cache Control Header, enter **public**.
8. Click **Apply**.

Part III

Migrating Content from UCM 10*g* to ECM 11*g*

Part IV provides steps for migrating content from UCM 10*g* to ECM 11*g*.

13

Migrating Content from UCM 10*g* to ECM 11*g*

Follow these steps to migrate content from UCM 10*g* to ECM 11*g*.

1. Complete ECM 11*g* installation and verify that you can check in content. Complete the OSL setup using the deployment instructions.
2. Export schema from 10*g* ECM DB. In 10*g*, the unique IDs are stored in tables (COUNTERS). DocID, RevID, and RevClassID are Unique IDs.

   The main tables that are needed are:

   - DOCMETA
   - DOCMETADEFINITION
   - DOCUMENTHISTORY
   - DOCUMENTS
   - REVISIONS
3. Import schema to 11*g* ECM DB. Before importing data from 10*g*, create OSL metadata in the database to match the 10*g* configuration.

   In 11*g*, the unique IDs for Document and Revisions use the database sequence though the table COUNTERS is still available.

   After schema import, set the values of the sequences IDCSEQDOCID, IDCSEQREVID, and IDCSEQREVCLASSID to start at a value higher than the imported data.
4. Create entries for the content in a new table called REVLCASSES based on the DID and DDOCNAME.
5. The vault and weblayout directories are:

   - **ECM 10g:**

     ```
     <UCM_HOME>/server/vault
     <UCM_HOME>/server/weblayout
     ```

   - **ECM 11g:**

     ```
     <MiddlewareHome>/user_projects/domains/<OSL_CS_Domain>/ucm/cs/vault
     <MiddlewareHome>/user_projects/domains/<OSL_CS_Domain>/ucm/cs/weblayout
     ```
6. The document type used by OSL in ECM 10*g* is **ADACCT**. The document type used by OSL in 11*g* is **Application**. To avoid renaming any vault and weblayout directories, create a document type **ADACCT** in 11*g*.

   The vault and weblayout directories vary based on the document type.

ECM 10*g*:

```
<UCM_HOME>/ucm/server/vault/adacct/@osl/@user.name1
...Additional directories will be available for each user who has published
content
<UCM_HOME>/ucm/server/vault/adacct/@osl/@oslcontent/@main/
<UCM_HOME>/ucm/server/vault/adacct/@osl/@oslcontent/@temp/
<UCM_
HOME>/ucm/server/weblayout/groups/osldocuments/@osl/@user.name1/documents/adacc
t
<UCM_
HOME>/ucm/server/weblayout/groups/osldocuments/@osl/@oslcontent/@main/documents
/adacct
<UCM_
HOME>/ucm/server/weblayout/groups/osldocuments/@osl/@oslcontent/@temp/documents
/adacct
```

ECM 11*g*:

```
<MiddlewareHome>/user_projects/domains/<OSL_CS_
Domain>/ucm/server/vault/application/@osl/@user.name1
...Additional directories will be created for each user who has published
content

<MiddlewareHome>/user_projects/domains/<OSL_CS_
Domain>/ucm/server/vault/application/@osl/@oslcontent/@main

<MiddlewareHome>/user_projects/domains/<OSL_CS_
Domain>/ucm/server/vault/application/@osl/@oslcontent/@temp

<MiddlewareHome>/user_projects/domains/base_
domain/ucm/cs/weblayout/groups/osldocuments/@osl/@user.name1/documents/applicat
ion

<MiddlewareHome>/user_projects/domains/base_
domain/ucm/cs/weblayout/groups/osldocuments/@osl/@oslcontent/@main

<MiddlewareHome>/user_projects/domains/base_
domain/ucm/cs/weblayout/groups/osldocuments/@osl/@oslcontent/@temp
```

In addition, the directory structure varies based on different security groups.

7. Create the directory structure in ECM 11*g* vault and copy the files from individual folders to these from ECM 10*g*.
8. Create the directory structure in ECM 11*g* weblayout and copy the files from individual folders to these from ECM 10*g*.
9. Start the ECM component Repository Manager. Click the **Indexer** tab and start the **Collection rebuild cycle**.
10. On completion of indexing, restart the server.
11. Log in and click **Search**. All the migrated content is displayed.
12. Check in new content and search for the content. The file must be checked in and you must be able to view the content. Click **Web Location** and **Native URL** to view the file.
13. Review the files checked in to confirm that migration is successful.

Part IV

Upgrading OSL Release 3.1.2 to OSL Release 3.1.3

Part V provides the steps on how to upgrade OSL Release 3.1.2 to OSL Release 3.1.3.

14

Upgrading Oracle Student Learning from Release 3.1.2 to Release 3.1.3

This chapter describes the steps for upgrading Oracle Student Learning (OSL) 3.1.2 to OSL 3.1.3.

14.1 Prerequisite

OSL 3.1.2 is installed and configured before you perform the upgrade process.

14.2 Updating OSL Learning Tool Database

To update the OSL Learning Tool Database to the current version, use one of these methods:

- Select **Yes** in the **Database Upgrade** screen during the installation process.
- Manually update the database by running the `DB_Upgrade.sql` script in `[OSL home directory]/LearningTool/Scripts` after the installation. Ensure that your current database schema version is the same as the required version of the `DB_Upgrade.sql` script.

Notes:

- The required database schema version for the database upgrade script is specified in the line starting with `--required_version` of `DB_Upgrade.sql`.
- Your current database schema version is specified in the CURRENT_VERSION column of the OSL_PRODUCTS table.

14.3 Installing WLS 10.3.5 and ADF 11.1.1.5.0

OSL 3.1.3 is certified with WLS 10.3.5 and ADF 11.1.1.5.0. Ensure that you upgrade your environment to these versions.

14.4 Deploying the new OSL .ear file

Customize and deploy the new OSL Learning Tool .ear file as explained in Chapter 9, "Deploying OSL Learning Tool Admin and OSL Learning Tool".

14.5 Redploying OBIEE Catalogs

1. Log in to the Fusion Middleware Enterprise Manager.
2. Navigate to **Business Intelligence** > **Core Application**.
3. Select the deployment tab and the repository.
4. Unzip the OSLCatalog.zip file from the [OSL Home directory] > LearningTool > StudentReporting > obiee11g directory.
5. Deploy the configured OSL repository file and catalog files.