Oracle® Retail Store Inventory Management

Installation Guide

Release 13.2.3

E25288-03

June 2013

Oracle® Retail Store Inventory Management Installation Guide, Release 13.2.3

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Value-Added Reseller (VAR) Language

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Oracle Retail Store Inventory Management Installation Guide, Release 13.2.3

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Preface

Oracle Retail Installation Guides contain the requirements and procedures that are necessary for the retailer to install Oracle Retail products.

Audience

This Installation Guide is written for the following audiences:

- Database administrators (DBA)
- System analysts and designers
- Integrators and implementation staff

Related Documents

For more information, see the following documents in the Oracle Retail Store Inventory Management Release 13.2.3 documentation set:

- *Oracle Retail Store Inventory Management Release Notes*
- *Oracle Retail Store Inventory Management Data Model*
- *Oracle Retail Store Inventory Management User Guide*
- *Oracle Retail Store Inventory Management Online Help*
- *Oracle Retail Store Inventory Management Licensing Information*
- *Oracle Retail Store Inventory Management Implementation Guides*
- *Oracle Retail Store Inventory Management Operations Guide*

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:

https://support.oracle.com

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Review Patch Documentation

When you install the application for the first time, you install either a base release (for example, 13.2) or a later patch release (for example, 13.2.3). If you are installing the base release and additional patch and bundled hot fix releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch and bundled hot fix releases can contain critical information related to the base release, as well as information about code changes since the base release.

Oracle Retail Documentation on the Oracle Technology Network

Documentation is packaged with each Oracle Retail product release. Oracle Retail product documentation is also available on the following Web site: http://www.oracle.com/technology/documentation/oracle_retail.html

(Data Model documents are not available through Oracle Technology Network. These documents are packaged with released code, or you can obtain them through My Oracle Support.)

Documentation should be available on this Web site within a month after a product release.

Conventions

Navigate: This is a navigate statement. It tells you how to get to the start of the procedure and ends with a screen shot of the starting point and the statement, "the Window Name window opens."

```
This is a code sample
    It is used to display examples of code
```

1

Preinstallation Tasks

This chapter discusses the tasks to complete before installation.

Check for the Current Version of the Installation Guide

Corrected versions of Oracle Retail installation guides may be published whenever critical corrections are required. For critical corrections, the rerelease of an installation guide may not be attached to a release; the document will simply be replaced on the Oracle Technology Network Web site.

Before you begin installation, check to be sure that you have the most recent version of this installation guide. Oracle Retail installation guides are available on the Oracle Technology Network at the following URL:

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

An updated version of an installation guide is indicated by part number, as well as print date (month and year). An updated version uses the same part number, with a higher-numbered suffix. For example, part number E123456-**02** is an updated version of an installation guide with part number E123456-**01**.

If a more recent version of this installation guide is available, that version supersedes all previous versions. Only use the newest version for your installation.

Implementation Capacity Planning

There is significant complexity involved in the deployment of Oracle Retail applications, and capacity planning is site specific. Oracle Retail strongly suggests that before installation or implementation you engage your integrator (such as the Oracle Retail Consulting team) and hardware vendor to request a disk sizing and capacity planning effort.

Sizing estimates are based on a number of factors, including the following:

- Workload and peak concurrent users and batch transactions
- Hardware configuration and parameters
- Data scarcity
- Application features utilized
- Length of time history is retained

Additional considerations during this process include your high availability needs as well as your backup and recovery methods.

Upgrading SIM

SIM 13.2.3 is a patch installation from 13.2.1. It is possible to upgrade a previous release (for example, from SIM 13.2.0.3) installation to version SIM 13.2.3. If you would like to perform an upgrade from SIM 13.2.0.x, refer to the My Oracle Support document, *Oracle Retail Upgrade Guide* (ID 1073414.1).

Check Supported Database Server Requirements

General Requirements for a database server running SIM include:

Supported On	Versions Supported
Database Server OS	OS certified with Oracle Database 11gR2 Enterprise Edition. Options are: ▪ Oracle Linux 5 Update 5 for x86-64 ▪ Red Hat Enterprise Linux 5 Update (RHEL 5.5) for x86-64 ▪ IBM AIX 6.1 (actual hardware or LPARs) ▪ Solaris 10 Sparc (actual hardware or Logical Domains) ▪ HP-UX 11.31 Integrity (actual hardware, HPVM, or vPars)
Database Server	Oracle Database Enterprise Edition 11gR2 (11.2.0.2) with the following specifications: **Components:** ▪ Oracle Partitioning ▪ Examples CD (Formerly the companion CD) **One-off Patches:** ▪ 10170431 – CTWR consumes a lot of CPU cycles. If ASM is used, apply the following patch to database home: ▪ 11808931 – Merge request on top of 11.2.0.2.0 for defects 10410054 and 10422126. **Other Components:** ▪ Perl compiler 5.0 or later ▪ X-Windows interface

Check Supported Application Server Requirements

The SIM application can be deployed on either Oracle WebLogic 10.3.3 or Oracle Application Server 10g 10.1.3.4.

> **Note:** If you are integrating with RMS 13.1.x products, then SIM 13.2.3 must be run on Oracle Application server (OAS).

General requirements for an Oracle Application Server capable of running the SIM application include the following.

> **Note:** Files required for OCM (Oracle Configuration Manager) are removed after OPatch is used to patch the WebLogic server. This will cause the product installers and OCM installation to fail. To work around this issue, back up the content of the $ORACLE_HOME/utils/ccr/lib directory prior to applying a patch using OPatch, and recopy the content back after you apply any patches. ORACLE_HOME is the location where WebLogic Server has been installed.
>
> **Note:** If using an OPatch on Linux 64-bit platforms, see Installer Fails because of missing .jar in $ORACLE_HOME/utils/ccr/lib in Appendix: Common Installation Errors.

Supported On	**Versions Supported**
Application Server OS	OS certified with Oracle Application Server 10g 10.1.3.4. Options are: ▪ Oracle Linux 5 Update 5 for x86-64 ▪ Red Hat Enterprise Linux 5 Update 5 (RHEL 5.5) for x86-64 ▪ IBM AIX 6.1 (actual hardware or LPARs) ▪ Solaris 10 Sparc (actual hardware or Logical Domains) ▪ HP-UX 11.31 Integrity (actual hardware or HPVM)
Application Server	Oracle Application Server 10g 10.1.3.4 with the following patches: ▪ 4601861 - NEED TO EXPOSE NZOS_SETIOSEMANTICS - Sun ▪ 5632264 - NEED UPDATED TIMEZONE FILES (VERSION 4) FOR MORE DST RULE CHANGES CORE - Generic Platform ▪ 5649850 - IF STRONG VERIFIER, GETCONNECTION FAIL AFTER INVOKE SETCONNECTIONCACHEPROPERTIES - Generic Platform (patch to help with uppercase passwords)

> **Note:** This release of SIM is only supported in a managed OC4J instance as part of OracleAS 10g. It is not supported on OC4J standalone.

General requirements for an Oracle WebLogic Server capable of running the SIM application include the following.

Supported on:	Versions Supported:
Application Server OS	OS certified with Oracle Fusion Middleware 11g Release 1 (11.1.1.3). Options are: ▪ Oracle Linux 5 Update 5 for x86-64 (Actual hardware or Oracle Virtual Machine) ▪ Red Hat Enterprise Linux 5 Update 5 (RHEL 5.5) for x86-64 (Actual hardware or Oracle Virtual Machine) ▪ IBM AIX 6.1 (actual hardware or LPARs) ▪ Solaris 10 Sparc (actual hardware or Logical Domains) ▪ HP-UX 11.31 Integrity (actual hardware or HPVM)
Application Server	Oracle Fusion Middleware 11g Release 1 (11.1.1.3) **Components:** ▪ Oracle WebLogic Server 11g Release 1 (10.3.3) **Other components:** ▪ Oracle BI Publisher 10g (10.1.3.4) **Optional (SSO required)** ▪ Oracle Internet Directory 10g (10.1.4) ▪ Oracle WebTier 11g (11.1.1.3)

Check Single Sign-On Requirements

If SIM is not being deployed in a Single Sign-On environment, skip this section.

If Single Sign-On is to be used, verify the Oracle Infrastructure Server 10g server has been installed. Verify the OAS HTTP server or Oracle HTTP Server for Web Logic server used to launch SIM has been registered with the Oracle Single Sign-On server.

For more details on this, see the *Oracle Single Sign-On Administration Guide*.

Check Directory Server Requirements

SIM uses directory server based user authentication and searching. For LDAP, SIM is certified with the following directory servers:

- Oracle Internet Directory 10.1.4

Check Third-Party Software Dependencies

- Oracle Retail Wireless Foundation Server, provided by Wavelink 4.x.

Check Client PC and Web Browser Requirements

Requirement	Versions
Operating system	Windows XP Windows 7
Display resolution	1024x768 or higher
Processor	1GHz or higher
Memory	512MBytes or higher
Java Runtime Environment	Oracle JRE 6u21-b08 or higher
Browser	Microsoft Internet Explorer 7, Microsoft Internet Explorer 8, or Mozilla Firefox 3.6.x The browser is used to launch the Java WebStart client.

Note: Oracle Retail does not recommend or support installations with less than 128 kb bandwidth available between the PC client and the data center. Limiting the client to less than 128 kb total available bandwidth causes unpredictable network utilization spikes, and performance of the client degrades below requirements established for the product. The 128 kb requirement provides reasonable, predictable performance and network utilization.

Supported Oracle Retail Products

The following Oracle Retail products can be integrated with SIM. Next to each product is an indication of whether it is required or optional for SIM to function properly:

- Retail Integration Bus (RIB) 13.2.3 and all subsequent patches and hot fixes – Required

  Although typically used to integrate SIM with RMS, RIB can also be used to integrate SIM with other merchandising systems.

  Note: RIB requires custom modifications to use a merchandising system other than RMS .

Retail Merchandising System (RMS) 13.2.3 – Optional

- Oracle Retail Price Management 13.2.3 – Optional
- Oracle Retail POS Suite 13.3 – Optional

The above products can be installed before or after SIM. However, it is helpful to know the connection details for the other products ahead of time so that you can provide them to the SIM application installer, which will configure the connection points for you.

Note: SIM 13.2.3 also support integration to RMS 13.1.x, RPM 13.1.x through RIB 13.1.x. The supported applications server for integrating with RIB13.1.x is OAS server.

UNIX User Account Privileges to Install the Software

A UNIX user account is needed to install the software. The UNIX user that is used to install the software should have write access to the WebLogic server installation files.

For example, "oretail."

> **Note:** Installation steps will fail when trying to modify files under the WebLogic installation unless the user has write access.

SIM Installation Overview

The following basic steps are required to install and set up SIM.

1. Install the database (with or without RAC).
2. Install application server (WebLogic or OAS) if it has not been installed
3. Set role-based access control. See Chapter 2 of the *Oracle Retail Store Inventory Management Implementation Guide* for instructions.
4. Install the SIM application.
5. Run data-seeding from RMS.

Customer Profiles

SIM 13.2.3 supports multiple installation scenarios. Find your scenario below and proceed with the instructions listed for your scenario.

- If you are doing a fresh install of SIM 13.2.3 and have Oracle Retail Merchandising 13.1 applications OR ORPOS 13.2 then proceed with installing Oracle Application server 10g and Database install. That is, all these products run on Oracle Application server 10g.
- If you are doing a fresh install of SIM 13.2.3 and have Oracle Retail Merchandising 13.2 applications OR ORPOS 13.3 then proceed with installing Oracle Web logic server 11g and Database install. That is, all these products run on Oracle Web logic server 11g.
- If you are upgrading from SIM 13.2.0.3 to SIM 13.2.3, please see the *Oracle Retail Upgrade Guide* for database upgrade. Your choice of application server will be determined by the release levels of other Oracle Retail software with which SIM integrates.

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RAC and Clustering

The Oracle Retail Store inventory Management System has been validated to run in two configurations on Linux:

- Standalone Oracle Application Server or Web Logic Server and Database installations
- Real Application Cluster Database and Oracle Application Server or Web Logic Server Clustering

The Oracle Retail products have been validated against an 11.2.0.2 RAC database. When using a RAC database, all JDBC connections should be configured to use OCI connections rather than THIN connections. It is suggested that when using OCI connections, the Oracle Retail products database be configured in the tnsnames.ora file used by the Oracle Application Server or Web Logic Server installations.

Clustering for Oracle Application Server 10.1.3 is managed as an Active-Active cluster accessed through a hardware Load Balancer. It is suggested that a VirtualHost be added to the OAS 10.1.3 reflecting the Virtual Server Name configured in the load balancer. It is also suggested that the OC4J select method be configured to prefer the use of local OC4J instances. The Oracle Retail products are currently not validated to be distributable at the application level in an OAS 10.1.3 cluster.

Clustering for Oracle Application Server 10.1.2 is managed as an Active-Active cluster accessed through a hardware Load Balancer. It is suggested that the Web Cache installation included with OAS 10.1.2 be configured to reflect all application server Mid-Tier installations. Validation has been completed utilizing a RAC 11.2.0.2 Oracle Internet Directory database with the OAS 10.1.2 cluster.

Clustering for Web Logic Server 10.3.3 is managed as an Active-Active cluster accessed through a Load Balancer. Validation has been completed utilizing a RAC 11.2.0.2 Oracle Internet Directory database with the Web Logic 10.3.3 cluster. It is suggested that a Web Tier 11.1.1.3 installation be configured to reflect all application server installations if SSO will be utilized.

References for Configuration:

- Oracle® Application Server High Availability Guide 10g Release 3 (10.1.3) Part Number B15977-02
- Oracle® Fusion Middleware High Availability Guide 11g Release 1 (11.1.1) Part Number E10106-09
- Oracle® Real Application Clusters Administration and Deployment Guide 11g Release 2 (11.2) Part Number E16795-11

3

Database Patch Installation Tasks

This chapter describes the tasks required for database patch installation.

Upgrading to the Latest Version

These instructions assume that you are upgrading SIM from 13.2.1 to 13.2.3. If you are currently using a version of SIM prior to 13.2.1 that you want to upgrade to 13.2.3, you must first upgrade to 13.2.1. Refer to the *Oracle Retail Store Inventory Management Installation Guide* for 13.2.1 before proceeding.

Expand the SIM Database Patch

To expand the SIM database schema installation distribution, complete the following steps.

1. Log in to the UNIX server as a user which has sufficient access to run sqlplus from the Oracle Database installation.
2. Create a new staging directory for the SIM database patch (sim-database-change.zip). There should be a minimum of 50 MB disk space available for the database patch files. This location is referred to as INSTALL_DIR for the remainder of this chapter.
3. Copy sim-database-change.zip to <INSTALL_DIR> and extract its contents.

Patching the Database

This step will upgrade your database from version 13.2.1 to version 13.2.3.

1. Expand the sim-database-change.zip file into <INSTALL_DIR> if not already done.
2. Set the following environment variables:
   - Set the ORACLE_HOME to point to an installation that contains sqlplus. It is recommended that this be the ORACLE_HOME of the SIM database.
   - Set the PATH to: $ORACLE_HOME/bin:$PATH
   - Set the ORACLE_SID to the name of your database
   - Set the NLS_LANG for proper locale and character encoding

   Example: Export NLS_LANG=AMERICAN_AMERICA.UTF8
3. Change the directory to the <INSTALL_DIR>.
4. Login via sqlplus to the SIM database as the SIM schema owner, and run the patch script: `@run_all.sql`

UDA Import Instructions

If you previously seeded RMS data into your 13.2.1 SIM schema install (see the chapter on Data Seeding for details), some extra steps are required to import additional UDA (User Defined Attributes) from ORMS (Oracle Retail Merchandise System) 13.2.3. Otherwise, you may skip this next section.

> **Note:** The SIDs for RMS and SIM databases should exist in the machine where these data import scripts are run.

1. The <INSTALL_DIR>/data_import directory is referred to as DATA_IMPORT_DIR for the remainder of this section.
2. In SIM database schema, the DBA needs to create a database link to RMS database, if it has not already been created. To create the link login SIM database and execute the following sql. If the link already exists, you will see errors indicating that the link already exists.

```
CREATE database link rms_seed_dblink CONNECT TO &rms_user
IDENTIFIED BY &rms_pwd USING '&rms_db';
```

3. Change to the <DATA_IMPORT_DIR> directory. Verify the directory and the file permissions. The recommended permissions for data import directories and files are 775 (rwxrwxr-x).

> **Note:** The default shell used in data import scripts is '#!/usr/bin/env bash . For data import run in other platform other than Linux, if encounter a syntax error due to the platform dependency, by modifying the shell to other shell (e.g. ksh93) may resolve the platform dependency issue.

4. Change to the uda directory. Ensure that the file uda_import.sh has execute permissions, for example, 700. Run the uda_import.sh command:

```
./uda_import.sh
```

5. You will be prompted for RMS and SIM database connection strings respectively:

   Enter RMS database connection string:

   For example: rms_*username/rms_password@rms_db*

   Enter SIM database connection string,:

   For example: sim_*username/sim_password@sim_db*

6. Verify the log file created uda_data_seed_log.log at <DATA_IMPORT_DIR>/uda/log for any errors.
7. DBA needs to drop database link rms_seed_dblink after data import.

4

Application Installation

This chapter explains application installation.

Application Server Deployment Options

SIM 13.2.3 supports two different application servers for deployment:

- Oracle WebLogic Server 11g Release 1 (10.3.3)
- Oracle Application Server 10g Enterprise Edition (10.1.3.4)

Your choice of application server is determined by the release levels of Oracle Retail software with which SIM integrates.

- You must use Oracle WebLogic Server 11g to integrate with
  - Oracle Retail Merchandising 13.2 applications using Oracle Retail Integration Bus (RIB) 13.2
  - Oracle Retail Point-of-Service 13.3
- You must use Oracle Application Server 10g to integrate with
  - Oracle Retail Merchandising 13.1 applications using Oracle Retail Integration Bus 13.1
  - Oracle Retail Point-of-Service 13.2

Your application installation steps will vary depending on which application server you are using. Perform your application installation using the appropriate procedure:

- See Chapter 5, Installing the SIM Application on Oracle Application Server (OAS).
- See Chapter 6, Installing the SIM Application on WebLogic.

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Installing the SIM Application on Oracle Application Server (OAS)

Before proceeding you must install Oracle Application Server 10g 10.1.3.4 plus the patches listed in Chapter 1 of this document. The SIM application is deployed to an OC4J instance within the OracleAS 10g installation. It is assumed Oracle database has already been configured and loaded with the appropriate SIM schema for your installation.

Oracle Configuration Manager

The Oracle Retail OCM Installer packaged with this release installs the latest version of OCM and will be the first set of screens in both the OAS and WebLogic application installers.

The following document is available through My Oracle Support: *Oracle Configuration Manager Installer Guide* (ID 1071030.1).

This guide describes the procedures and interface of the Oracle Retail Oracle Configuration Manager Installer that a retailer runs near the completion of its installation process.

Access My Oracle Support at the following URL:

`https://support.oracle.com`

OCM Documentation Link

`http://www.oracle.com/technology/documentation/ocm.html`

Create a New OC4J Instance and Group for SIM

You can skip this section if you are redeploying to an existing OC4J group in Oracle Application Server 10.1.3.4.

The SIM application must be deployed to its own dedicated OC4J group. For instructions on how to create a new OC4J group and instance, see “Adding and Deleting OC4J Instances” in the “Reconfiguring Application Server Instances” chapter of the *Oracle Application Server Administrator’s Guide*.

1. Log in to the server which is running your OracleAS 10g installation. Set your ORACLE_HOME environment variable to point to this installation.
2. Choose a name for the new OC4J instance and group.

   Example: sim-oc4j-instance

   Example: sim_group

   Create this OC4J instance and group as documented in the *Oracle Application Server Administrator’s Guide*.

   Example:
   $ORACLE_HOME/bin/createinstance
   –instanceName sim-oc4j-instance –groupName sim_group

When prompted for the oc4jadmin password, provide the same administrative password you gave for the Oracle Application Server installation. All OC4J instances running Oracle Retail applications must have the same oc4jadmin password.

3. (**Linux only**) Increase memory for the new OC4J instance by modifying $ORACLE_HOME/opmn/conf/opmn.xml. Locate the OC4J instance you just created, and add the -XX:PermSize=256m -XX:MaxPermSize=512m -Xms256m -Xmx256m options to the start-parameters section.

   Example:

   ```
   <process-type id=”orco-inst” module-id=”OC4J”
   status=”enabled”>
      <module-data>
         <category id=”start-parameters”>
            <data id=”java-options” value=”-server
   -XX:PermSize=256m -XX:MaxPermSize=512m -Xms256m -
   Xmx256m -
   Djava.security.policy=$ORACLE_HOME/j2ee/orco-
   inst/config/java2.policy –Djava.awt.headless=true
   –Dhttp.webdir.enabled=false”/>
         </category>
   ```

4. Force OPMN to reload the configuration file.

   Example: $ORACLE_HOME/opmn/bin/opmnctl reload

5. Start the OC4J group. You can do this through the Enterprise Manager Web interface, or on the command line using the opmnctl utility:

   Clustered Example: $ORACLE_HOME/opmn/bin/opmnctl @cluster startproc ias-component=sim_group

   Non-clustered Example:
   $ORACLE_HOME/opmn/bin/opmnctl startproc ias-component=sim_group

6. Verify that the OC4J group was fully started. If you are using the Enterprise Manager Web interface, the instance should have a green arrow indicating that it is running. On the command line, verify that the instance has a status of Alive.

   Example: $ORACLE_HOME/opmn/bin/opmnctl status

   If you are unable to start the OC4J instance after several attempts, try increasing the startup timeouts in ORACLE_HOME/opmn/conf/opmn.xml. If that does not help, consult the Oracle Application Server documentation for further assistance.

Configure Apache for JNLP Files

If this is the first WebStart application that is being installed in the HTTP server, you need to configure the **mime.types** file with the jnlp file type. If you are using the Apache distribution that is included with OracleAS, this file can be found under ORACLE_HOME/Apache/Apache/conf. Add the following line to the file:

```
application/x-java-jnlp-file        jnlp
```

Restart the Apache server for this change to take effect. If you do not add this line then jnlp files are served as plain text and you cannot launch the application.

Example: $ORACLE_HOME/opmn/bin/opmnctl restartproc process-type=HTTP_Server

Set the LANG Environment Variable

The LANG environment variable must be set in the profile of the UNIX user who owns the application server ORACLE_HOME files. If you change the value of LANG or set the value for the first time, you must restart the Application Server in order for the change to take effect.

Example:

LANG=en_US

export LANG

For instructions on how to restart the Application Server, see the *opmnctl Commands* chapter of the *Oracle® Process Manager and Notification Server Administrator's Guide*.

Example:

$ORACLE_HOME/opmn/bin/opmnctl stopall

$ORACLE_HOME/opmn/bin/opmnctl startall

Expand the SIM Application Distribution

To expand the SIM application distribution, complete the following steps.

1. Log into the UNIX server as the user who owns the OracleAS 10g installation. Create a new staging directory for the SIM application distribution (sim13application.zip). There should be a minimum of 800 MB disk space available for the application installation files.

   Example: /u00/webadmin/media/sim

2. Copy sim13application.zip to <INSTALL_DIR> and extract its contents.

   Example: unzip sim13application.zip

Run the SIM Application Installer

This installer configures and deploys the SIM application and Java WebStart client files.

1. If you are installing to a clustered Application Server, perform the preinstallation tasks as described in the Clustered Installations -- Preinstallation Steps section above.
2. Set the ORACLE_HOME and JAVA_HOME environment variables. ORACLE_HOME should point to your OracleAS installation. JAVA_HOME should point to $ORACLE_HOME/jdk.
3. If you are using an X server such as Exceed, set the DISPLAY environment variable so that you can run the installer in GUI mode (recommended). If you are not using an X server, or the GUI is too slow over your network, unset DISPLAY for text mode.
4. Verify that the OC4J instance(s) that you install SIM to are currently running. See the section “Create a New OC4J Instance and Group for SIM” for instructions on how to start the oc4j instance(s).
5. Run the install.sh script. This launches the installer.

6. After installation is completed, a detailed installation log file is created: <INSTALL_DIR>/sim/application/logs/sim-install-app.<timestamp>.log.

> **Note:** See Appendix: SIM Application Oracle Application Server (OAS) Installer Screens for details on every screen and field in the Oracle Application Server application installer.

> **Note:** See Appendix: Common Installation Errors for details on common installation errors.

Review and/or Configure Oracle Single Sign-On

Skip this section if you are not using Single Sign-On for user identification and authentication.

Single Sign-On is applicable only to the JnlpLaunch Servlet. The JnlpLaunch Servlet is a dynamically protected application. The JnlpLaunch Servlet causes the SIM client application to execute under the SSO user name with a temporary password.

> **Note:** The JnlpLaunch servlet may be configured for either an SSO or non-SSO environment.

HTTP Server configuration requirements: The HTTP Server must be registered with the Oracle Single Sign-On server and the mod_osso module enabled. The registration process typically involves running the ssoreg.sh script at the OSSO server installation and copying the output osso.conf file to the HTTP Server. This process is documented in the Oracle Single Sign-On administration documentation.

JnlpLaunch requirements: The JnlpLaunch Servlet uses the configuration file, JnlpLaunch.properties, to control its behavior. Due to security considerations, this file must not be published or readable to the general public.

JnlpLaunch.properties has the following configuration entries that apply to Single Sign-On:

- `secret.key – Used` to create the temporary password, this property should contain a random string. If JnlpLaunch is deployed in a different JVM than the SIM Server EJBs, this string must be an exact match between the JnlpLaunch Servlet and the one available to the SIM EJBs. For security purposes, each separate instance of the SIM application (for example, test versus development) should have a different secret key.
- `user.validation.timeout` – Number of seconds the SIM Server uses to determine if a temporary password is still valid.
- `osso.used` – Determines if the JnlpLaunch Servlet will throw a 499 error when an unathenticated user has been detected. This property must be set to true if Oracle Single Sign-On is used and false if not.

The JnlpLaunch.properties file is initialized by the SIM installer and should contain valid entries for SSO when the Enable Single Sign-On in SIM? prompt was answered with Y or Yes. However, an administrator may want to alter the user.validation.timeout or other property after the initial installation.

SIM Batch Scripts

The SIM application installer places the SIM batch programs with the rest of the SIM application files under $ORACLE_HOME/j2ee/<oc4j-instance-name>/<sim-client-deployment-name>/batch

The batch programs can be run from a different location if you cannot run them from under the application server ORACLE_HOME. To install the batch files in a different location just copy the entire $ORACLE_HOME/j2ee/<oc4j-instance-name>/<sim-client-deployment-name>/batch directory to the appropriate destination.

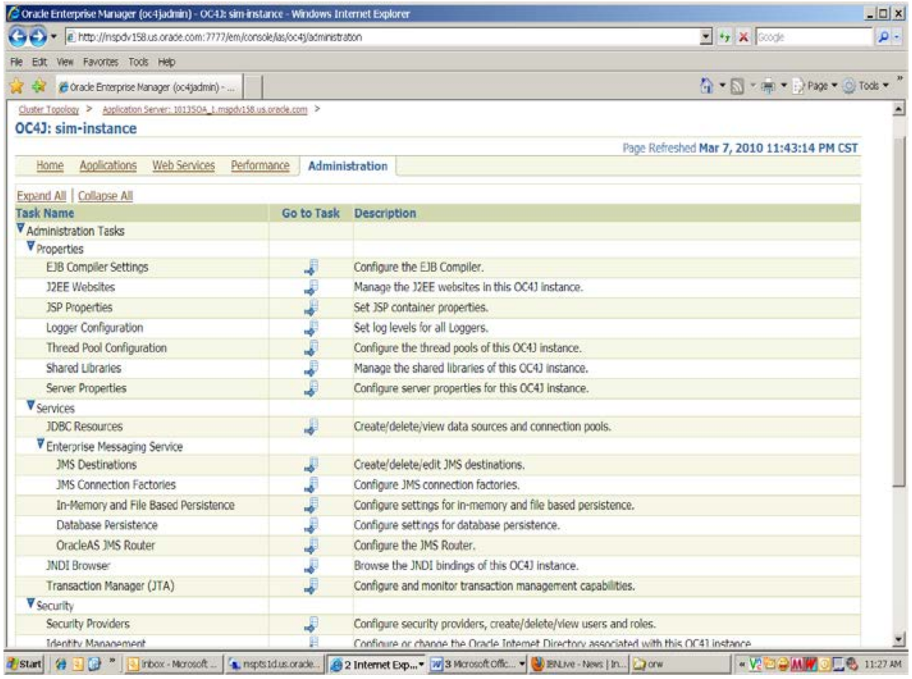
The batch location is assumed to be located on the same server as the application server. If you copy the batch to a location on a different server, then you need to configure the file path to the sim-batch.log file, which is defined in batch /resources/log4j.xml.

See the Batch Detail section of the *Oracle Retail Store Inventory Management Operations Guide* for information on how to run batches.

Adding Users to Application Server for Web Services

Once the application has been installed, you need to add users to the user role for web services.

1. Go to the Enterprise Manager console for the Application Server where you installed SIM.
2. Click the SIM instance where you installed the application.
3. Click the Administration link.
4. Click the **Security Provider** task icon in the Security category.

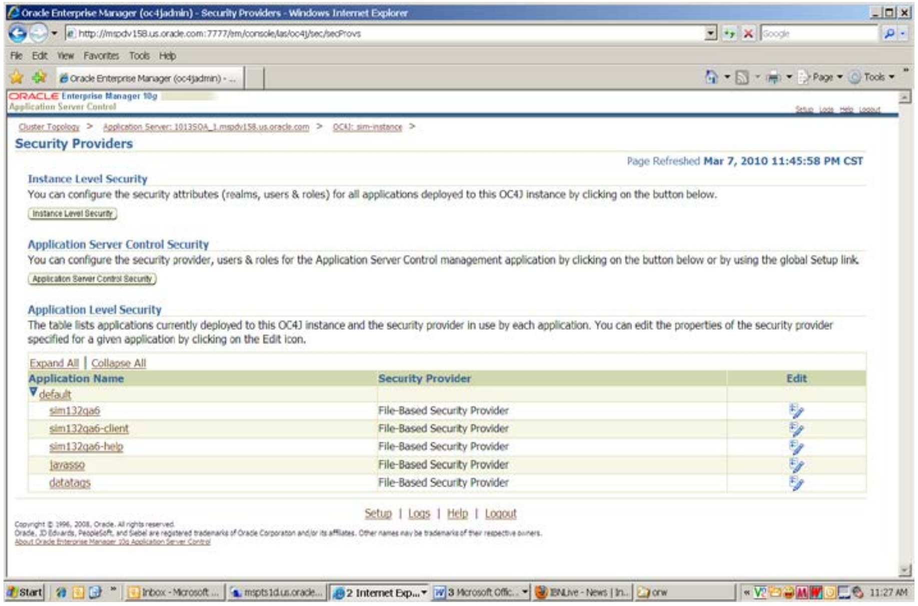

Oracle Enterprise Manager (oc4jadmin) - OC4J: sim-instance - Windows Internet Explorer
http://mspdv158.us.oracle.com:7777/em/console/ias/oc4j/administration
Google
File Edit View Favorites Tools Help
Oracle Enterprise Manager (oc4jadmin) - ...
Page Tools
Cluster Topology > Application Server: 1013SOA_1.mspdv158.us.oracle.com >
Home Applications Web Services Performance Administration
Expand All | Collapse All
Start Inbox - Microsoft ... mspts1d.us.oracle... 2 Internet Exp... 3 Microsoft Offic... IBNLive - News | In... orw 11:27 AM

OC4J: sim-instance

Page Refreshed **Mar 7, 2010 11:43:14 PM CST**

Task Name	Go to Task	Description
▼Administration Tasks		
▼Properties		
EJB Compiler Settings		Configure the EJB Compiler.
J2EE Websites		Manage the J2EE websites in this OC4J instance.
JSP Properties		Set JSP container properties.
Logger Configuration		Set log levels for all Loggers.
Thread Pool Configuration		Configure the thread pools of this OC4J instance.
Shared Libraries		Manage the shared libraries of this OC4J instance.
Server Properties		Configure server properties for this OC4J instance.
▼Services		
JDBC Resources		Create/delete/view data sources and connection pools.
▼Enterprise Messaging Service		
JMS Destinations		Create/delete/edit JMS destinations.
JMS Connection Factories		Configure JMS connection factories.
In-Memory and File Based Persistence		Configure settings for in-memory and file based persistence.
Database Persistence		Configure settings for database persistence.
OracleAS JMS Router		Configure the JMS Router.
JNDI Browser		Browse the JNDI bindings of this OC4J instance.
Transaction Manager (JTA)		Configure and monitor transaction management capabilities.
▼Security		
Security Providers		Configure security providers, create/delete/view users and roles.
Identity Management		Configure or change the Oracle Internet Directory associated with this OC4J instance.

5. Click **Instance Level Security**.



Oracle Enterprise Manager (oc4jadmin) - Security Providers - Windows Internet Explorer
http://mspdv158.us.oracle.com:7777/em/console/ias/oc4j/sec/secProvs
File Edit View Favorites Tools Help
Oracle Enterprise Manager (oc4jadmin) - ...
Page Tools
ORACLE Enterprise Manager 10g
Application Server Control
Setup Logs Help Logout
Start
Inbox - Microsoft ...
mspts1d.us.oracle...
2 Internet Exp...
3 Microsoft Offic...
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11:27 AM

Cluster Topology > Application Server: 1013SOA_1.mspdv158.us.oracle.com > OC4J: sim-instance >

Security Providers

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Instance Level Security

You can configure the security attributes (realms, users & roles) for all applications deployed to this OC4J instance by clicking on the button below.

Instance Level Security

Application Server Control Security

You can configure the security provider, users & roles for the Application Server Control management application by clicking on the button below or by using the global Setup link.

Application Server Control Security

Application Level Security

The table lists applications currently deployed to this OC4J instance and the security provider in use by each application. You can edit the properties of the security provider specified for a given application by clicking on the Edit icon.

Expand All | Collapse All

Application Name	Security Provider	Edit
▼default		
sim132qa6	File-Based Security Provider	✎
sim132qa6-client	File-Based Security Provider	✎
sim132qa6-help	File-Based Security Provider	✎
javasso	File-Based Security Provider	✎
datatags	File-Based Security Provider	✎

Setup | Logs | Help | Logout

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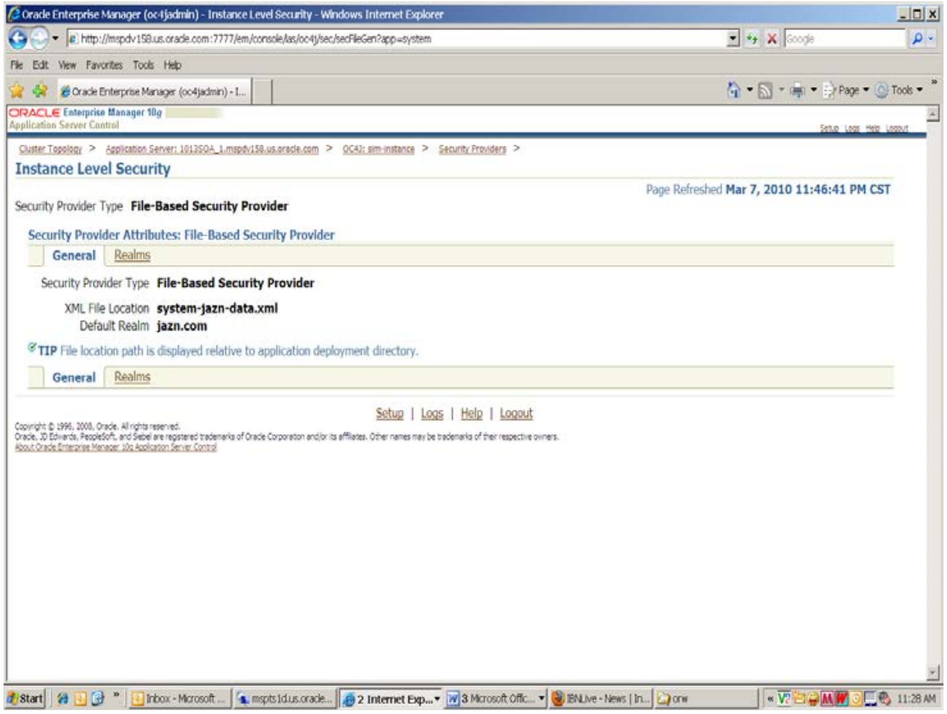
About Oracle Enterprise Manager 10g Application Server Control

6. Click **Realms**.



Oracle Enterprise Manager (oc4jadmin) - Instance Level Security - Windows Internet Explorer
http://mspdv158.us.oracle.com:7777/em/console/ias/oc4j/sec/secFileGen?app=system
File Edit View Favorites Tools Help
Oracle Enterprise Manager (oc4jadmin) - I...
Page Tools
ORACLE Enterprise Manager 10g
Application Server Control
Setup Logs Help Logout
Start
Inbox - Microsoft ...
mspts1d.us.oracle...
2 Internet Exp...
3 Microsoft Offic...
IBNLive - News | In...
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Cluster Topology > Application Server: 1013SOA_1.mspdv158.us.oracle.com > OC4J: sim-instance > Security Providers >

Instance Level Security

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Security Provider Type **File-Based Security Provider**

Security Provider Attributes: File-Based Security Provider

General | Realms

Security Provider Type **File-Based Security Provider**

XML File Location **system-jazn-data.xml**
Default Realm **jazn.com**

✓ TIP File location path is displayed relative to application deployment directory.

General | Realms

Setup | Logs | Help | Logout

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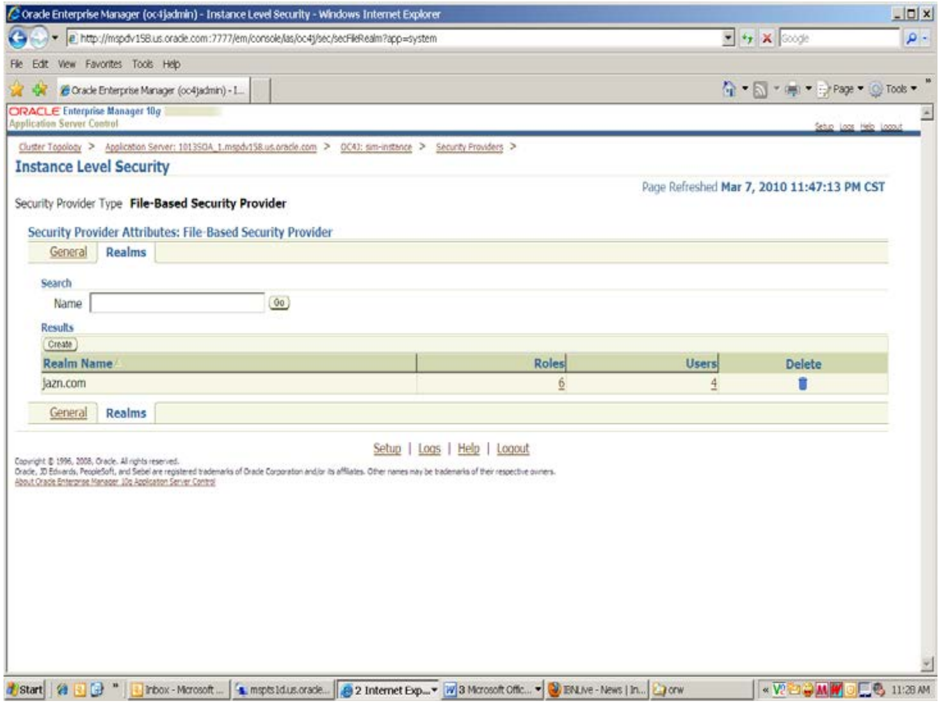
About Oracle Enterprise Manager 10g Application Server Control

7. Click **Users** (click the number under the Users column).


Oracle Enterprise Manager (oc4jadmin) - Instance Level Security - Windows Internet Explorer
File Edit View Favorites Tools Help
ORACLE Enterprise Manager 10g
Application Server Control
Setup Logs Help Logout

http://mspdv158.us.oracle.com:7777/em/console/ias/oc4j/sec/secFileRealm?app=system

Cluster Topology > Application Server: 1013SOA_1.mspdv158.us.oracle.com > OC4J: sim-instance > Security Providers >

Instance Level Security

Page Refreshed **Mar 7, 2010 11:47:13 PM CST**

Security Provider Type **File-Based Security Provider**

Security Provider Attributes: File-Based Security Provider

General | Realms

Search

Name [ ] (Go)

Results

(Create)

Realm Name	Roles	Users	Delete
jazn.com	6	4	🗑

Setup | Logs | Help | Logout

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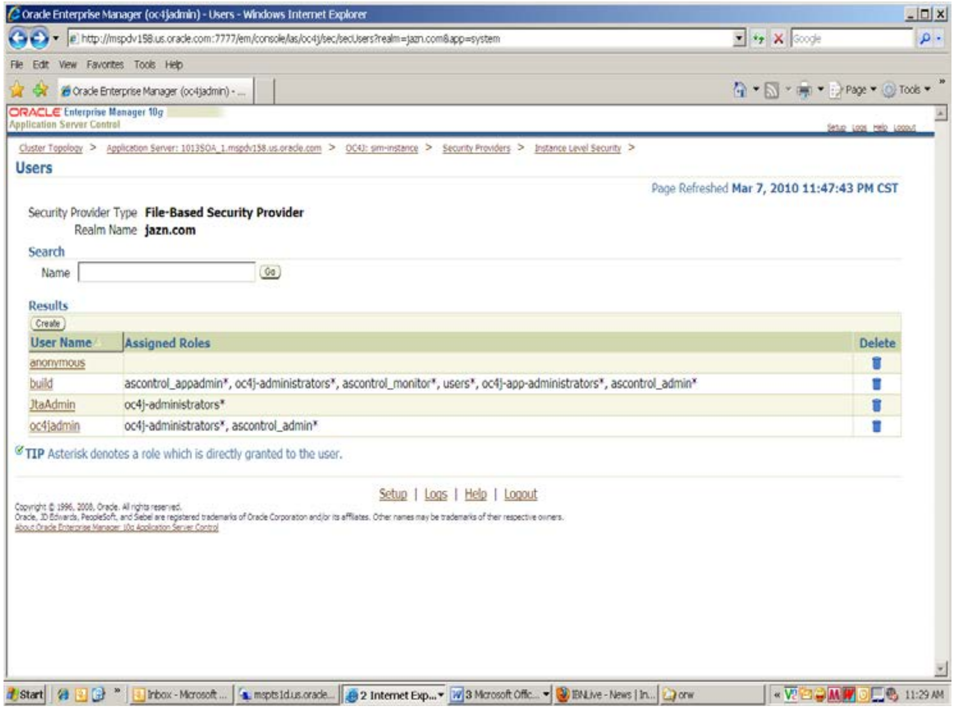
About Oracle Enterprise Manager 10g Application Server Control

8. Create the user by clicking the **Create** button:


Oracle Enterprise Manager (oc4jadmin) - Users - Windows Internet Explorer
File Edit View Favorites Tools Help
ORACLE Enterprise Manager 10g
Application Server Control
Setup Logs Help Logout

http://mspdv158.us.oracle.com:7777/em/console/ias/oc4j/sec/secUsers?realm=jazn.com&app=system

Cluster Topology > Application Server: 1013SOA_1.mspdv158.us.oracle.com > OC4J: sim-instance > Security Providers > Instance Level Security >

Users

Page Refreshed **Mar 7, 2010 11:47:43 PM CST**

Security Provider Type **File-Based Security Provider**
Realm Name **jazn.com**

Search

Name [ ] (Go)

Results

(Create)

User Name	Assigned Roles	Delete
anonymous		🗑
build	ascontrol_appadmin*, oc4j-administrators*, ascontrol_monitor*, users*, oc4j-app-administrators*, ascontrol_admin*	🗑
JtaAdmin	oc4j-administrators*	🗑
oc4jadmin	oc4j-administrators*, ascontrol_admin*	🗑

TIP Asterisk denotes a role which is directly granted to the user.

Setup | Logs | Help | Logout

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About Oracle Enterprise Manager 10g Application Server Control

9. Create the user by adding user name, password, choosing the user role. Click **OK**.

Resolving Errors Encountered During Application Installation

If the application installer encounters any errors, it halts execution immediately. You can run the installer in silent mode so that you do not have to retype the settings for your environment. See Appendix: Installer Silent Mode for information about silent mode.

See Appendix: Common Installation Errors for a list of common installation errors.

Since the application installation is a full reinstall every time, any previous partial installs are overwritten by the successful installation.

Web Help Files

The application installer automatically copies the web help files to the proper location. They are accessible from the help links within the application.

Starting and Stopping SIM

SIM can also be restarted by using the Enterprise Manager to restart the OC4J instance that contains SIM. However, if you use the Enterprise Manager to restart SIM, the Wavelink server needs to be restarted manually.

Starting and Stopping the Wavelink Server

In order to use handheld wireless devices with SIM, the Wavelink server must be running.

> **Note:** If you use the Enterprise Manager to restart SIM you must restart the Wavelink server manually.

If you use SIM's startup and shutdown scripts to restart SIM on the command line, then the Wavelink server will also be restarted along with SIM. However, if you use the Enterprise Manager to restart SIM, the Wavelink server is not affected. So it must be restarted manually once SIM is running again.

The Wavelink server scripts can be found here:

ORACLE_HOME/ j2ee/<oc4j-instance-name>/<sim-deployment-name>/wireless/bin/wavelink-startup.sh

ORACLE_HOME/ j2ee/<oc4j-instance-name>/s<sim-deployment-name>/wireless/bin/wavelink-shutdown.sh

> **Note:** The wireless functionality in SIM is dependent on Wavelink and includes a client and server component. Wavelink software ensures that the wireless user interface of SIM can work with various handheld devices.
>
> For the handheld to interact correctly with SIM, it is required to install the appropriate Wavelink studio client. The Wavelink studio client and its installation instructions can be found at http://www.wavelink.com/download/downloads.aspx.
>
> The Oracle Retail Wireless Foundation Server is bundled with the SIM server. It has a single session free license. For multiple sessions additional licenses need to be obtained.

Please contact your Oracle sales representative or client partner for Wavelink Studio Client and Oracle Retail Wireless Foundation Server license information.

Note: For configurations of physical handheld devices or wireless network setup, check your hardware manufacturer’s manual or Wavelink’s studio client information. This information is not covered in this guide.

Note: For additional information about LDAP configuration see the *Oracle Retail Store Inventory Management Implementation Guide*.

6

Installing the SIM Application on WebLogic

These instructions apply to new installations. Before proceeding, you must install Oracle WebLogic Server 11g Release 1 (10.3.3) and patches listed in the Chapter 1 of this document. The Oracle Retail Allocation application is deployed to a WebLogic Managed server within the WebLogic installation. It is assumed Oracle Database has already been configured and loaded with the appropriate RMS and Oracle Retail Allocation schemas for your installation.

If Oracle Forms 11g has been installed in the same WebLogic that is being used for this application, a domain called "ClassicDomain" is installed. Installing a separate domain under the same WebLogic server is recommended. It can be called "APPDomain" (or something similar) and will be used to install the non-ORACLE Forms managed servers. Applications such as RPM, SIM, Allocation, ReIM, RIB, AIP, and RSL can be installed in the "APPDomain."

Oracle Configuration Manager

The Oracle Retail OCM Installer packaged with this release installs the latest version of OCM and will be the first set of screens in both the OAS and WebLogic application installers.

The following document is available through My Oracle Support.

Access My Oracle Support at the following URL:

`https://metalink.oracle.com`

Oracle Configuration Manager Installer Guide (ID 1071030.1)

This guide describes the procedures and interface of the Oracle Retail Oracle Configuration Manager Installer that a retailer runs near the completion of its installation process.

OCM Documentation Link

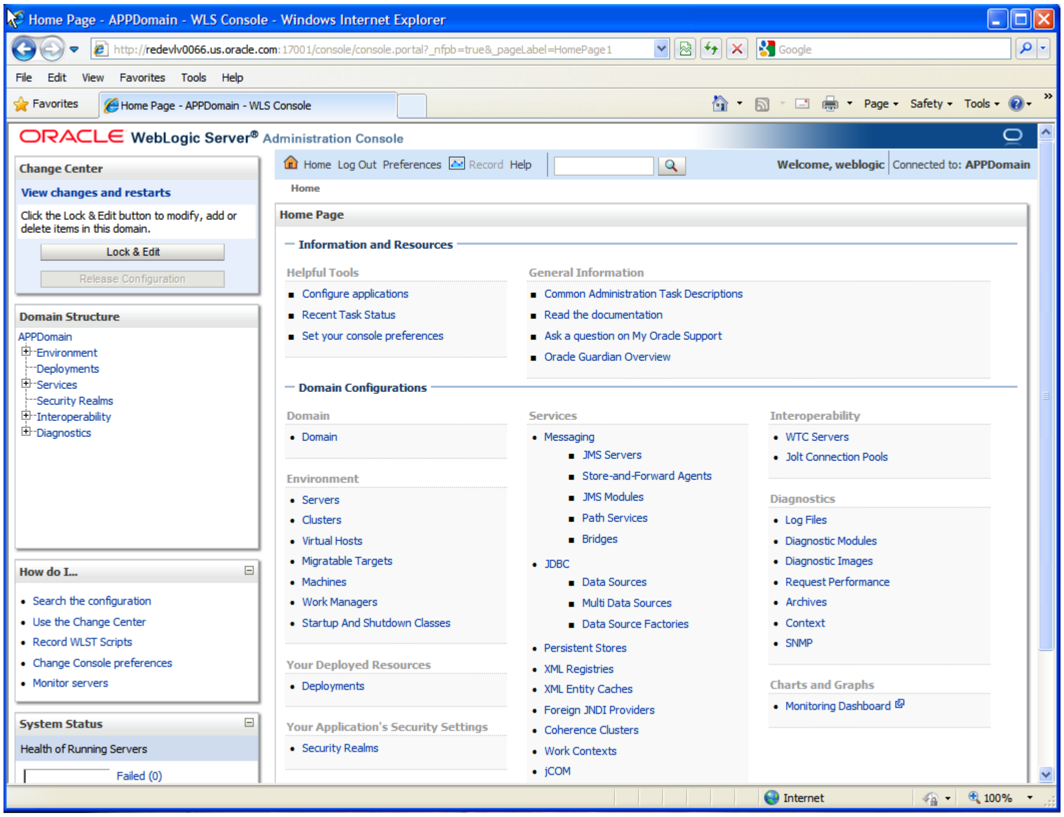
`http://www.oracle.com/technology/documentation/ocm.html`

Install Managed Server in WebLogic

Before running the application installer, you must install the managed server in WebLogic if it was not created during the domain install.

> **Note:** If integrating SIM with RSL, having SIM and RSL servers configured in the same domain is recommended. If the RSL server is installed in a different domain, you must set up a "trusted relationship" between the two WebLogic domains for RMI calls.

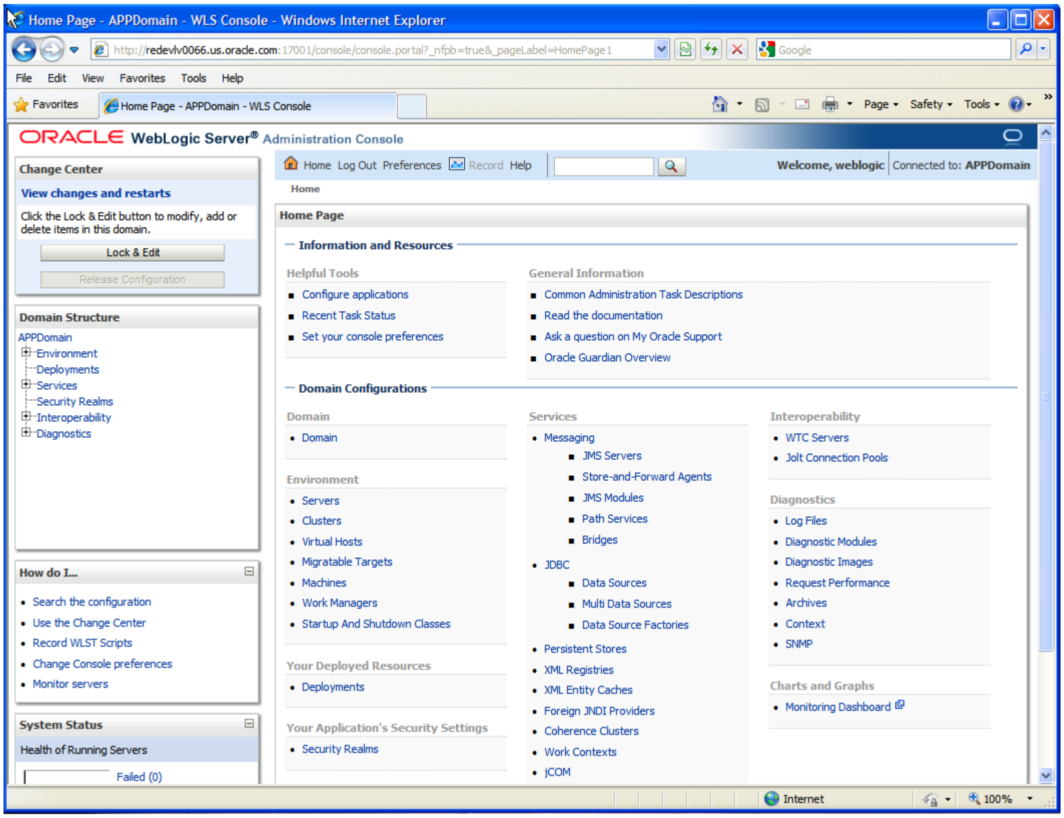
1. Log in to the admin console



Click the Lock & Edit button to modify, add or delete items in this domain.

2. Click **Lock & Edit**.

3. Navigate to Environment->Servers and select new tab of the servers on the right side.

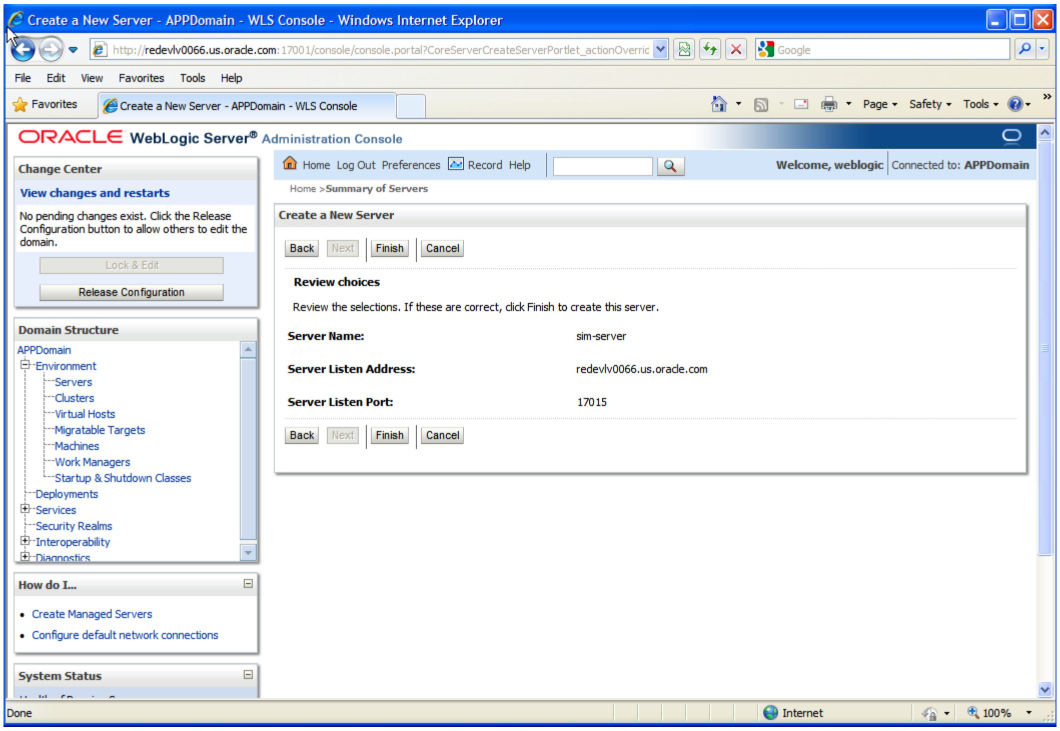


Click the Lock & Edit button to modify, add or delete items in this domain.

4. Set the following variables:
   - **Server Name**: These should be some name specific to your application targeted

     Example: sim-server
   - **Server Listen Address**: <weblogic server> (for example, redevlv0065.us.oracle.com).
   - **Server Listen Port**: A free port; you should check for availability.

     A suggestion is to increment the AdminServer port by two and keep incrementing by two for each managed server (for example, 18003, 18005, 18007 and so on).
5. Click **Next**.



Create a New Server - APPDomain - WLS Console - Windows Internet Explorer
http://redevlv0066.us.oracle.com:17001/console/console.portal?CoreServerCreateServerPortlet_actionOverric
Google
File Edit View Favorites Tools Help
Favorites
Create a New Server - APPDomain - WLS Console
Page Safety Tools
ORACLE WebLogic Server® Administration Console
Change Center
View changes and restarts
Lock & Edit
Release Configuration
Home Log Out Preferences Record Help
Welcome, weblogic Connected to: APPDomain
Home >Summary of Servers
Create a New Server
Back Next Finish Cancel
Domain Structure
APPDomain
Environment
Servers
Clusters
Virtual Hosts
Migratable Targets
Machines
Work Managers
Startup & Shutdown Classes
Deployments
Services
Security Realms
Interoperability
Diagnostics
How do I...
Create Managed Servers
Configure default network connections
System Status
Done
Internet
100%

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.

Review choices

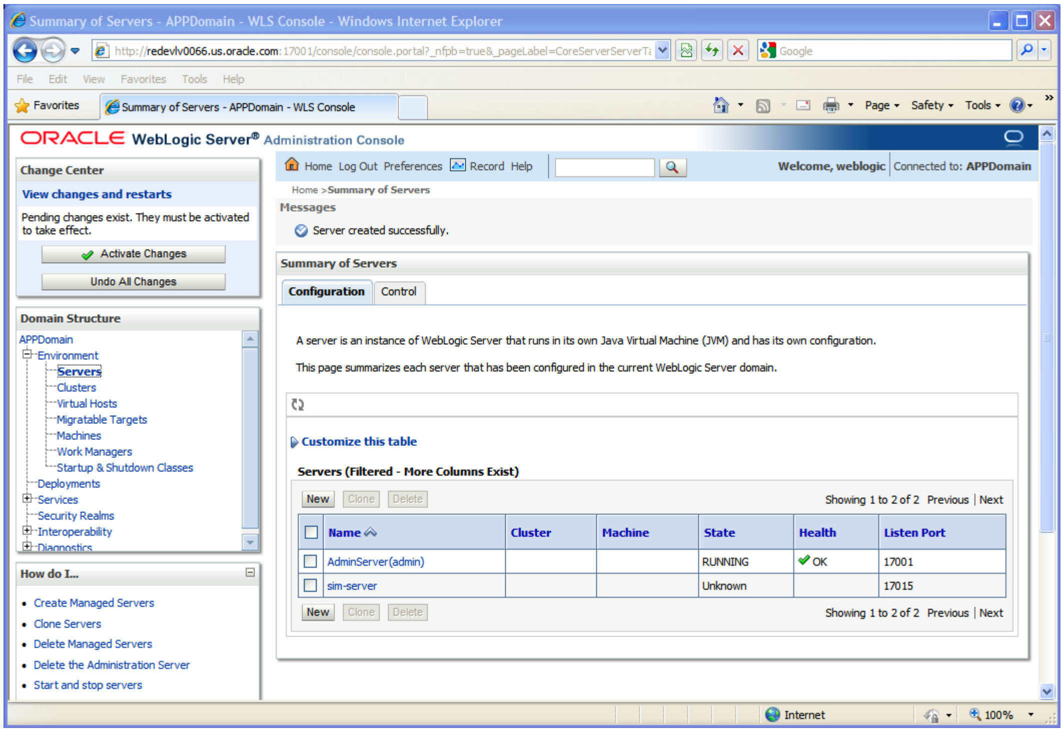
Review the selections. If these are correct, click Finish to create this server.

Server Name: sim-server

Server Listen Address: redevlv0066.us.oracle.com

Server Listen Port: 17015

6. Click **Finish**.


Summary of Servers - APPDomain - WLS Console - Windows Internet Explorer
http://redevlv0066.us.oracle.com:17001/console/console.portal?_nfpb=true&_pageLabel=CoreServerServerT
File Edit View Favorites Tools Help
Favorites
Summary of Servers - APPDomain - WLS Console
Page Safety Tools
ORACLE WebLogic Server® Administration Console
Home Log Out Preferences Record Help
Welcome, weblogic Connected to: APPDomain
Home >Summary of Servers
Change Center
View changes and restarts
Activate Changes
Undo All Changes
Domain Structure
APPDomain
Environment
Servers
Clusters
Virtual Hosts
Migratable Targets
Machines
Work Managers
Startup & Shutdown Classes
Deployments
Services
Security Realms
Interoperability
Diagnostics
How do I...
Create Managed Servers
Clone Servers
Delete Managed Servers
Delete the Administration Server
Start and stop servers
Configuration
Control
Customize this table
New
Clone
Delete
Internet
100%

Pending changes exist. They must be activated to take effect.

Messages

Server created successfully.

Summary of Servers

A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration.

This page summarizes each server that has been configured in the current WebLogic Server domain.

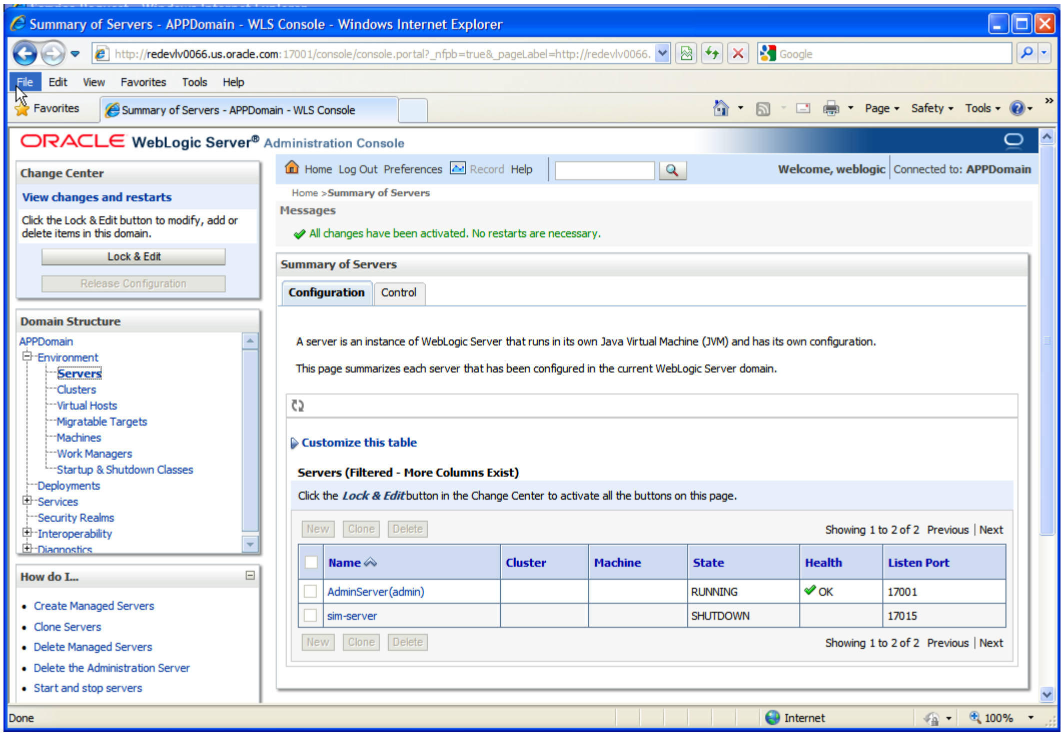
Servers (Filtered - More Columns Exist)

Showing 1 to 2 of 2 Previous | Next

□	Name	Cluster	Machine	State	Health	Listen Port
□	AdminServer(admin)			RUNNING	✓ OK	17001
□	sim-server			Unknown		17015

Showing 1 to 2 of 2 Previous | Next

7. Click **Activate Changes** on the left hand side.


Summary of Servers - APPDomain - WLS Console - Windows Internet Explorer
http://redevlv0066.us.oracle.com:17001/console/console.portal?_nfpb=true&_pageLabel=http://redevlv0066.
File Edit View Favorites Tools Help
Favorites
Summary of Servers - APPDomain - WLS Console
Page Safety Tools
ORACLE WebLogic Server® Administration Console
Home Log Out Preferences Record Help
Welcome, weblogic Connected to: APPDomain
Home >Summary of Servers
Change Center
View changes and restarts
Lock & Edit
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Domain Structure
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Migratable Targets
Machines
Work Managers
Startup & Shutdown Classes
Deployments
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Security Realms
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How do I...
Create Managed Servers
Clone Servers
Delete Managed Servers
Delete the Administration Server
Start and stop servers
Configuration
Control
Customize this table
New
Clone
Delete
Done
Internet
100%

Click the Lock & Edit button to modify, add or delete items in this domain.

Messages

All changes have been activated. No restarts are necessary.

Summary of Servers

A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration.

This page summarizes each server that has been configured in the current WebLogic Server domain.

Servers (Filtered - More Columns Exist)

Click the *Lock & Edit* button in the Change Center to activate all the buttons on this page.

Showing 1 to 2 of 2 Previous | Next

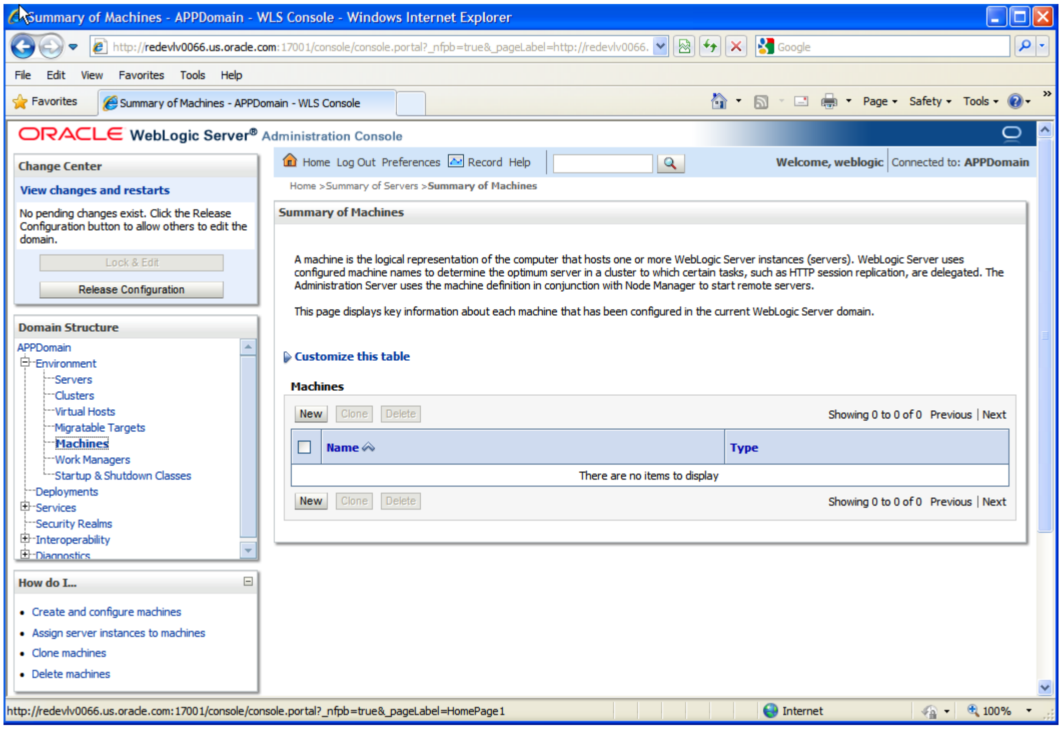
□	Name	Cluster	Machine	State	Health	Listen Port
□	AdminServer(admin)			RUNNING	✓ OK	17001
□	sim-server			SHUTDOWN		17015

Showing 1 to 2 of 2 Previous | Next

Install NodeManager

Install NodeManager if it was not created during domain install. NodeManager is required so that the managed servers can be started and stopped via the admin console. Only one NodeManager is needed per WebLogic install.

1. Log in to the admin console.
2. Click **Lock & Edit** and navigate to Environments > Machines.


Summary of Machines - APPDomain - WLS Console - Windows Internet Explorer
http://redevlv0066.us.oracle.com:17001/console/console.portal?_nfpb=true&_pageLabel=http://redevlv0066.
Google
File Edit View Favorites Tools Help
Favorites
Summary of Machines - APPDomain - WLS Console
Page Safety Tools
ORACLE WebLogic Server® Administration Console
Home Log Out Preferences Record Help
Welcome, weblogic Connected to: APPDomain
Home >Summary of Servers >Summary of Machines
Change Center
View changes and restarts
Lock & Edit
Release Configuration
Domain Structure
APPDomain
Environment
Servers
Clusters
Virtual Hosts
Migratable Targets
Machines
Work Managers
Startup & Shutdown Classes
Deployments
Services
Security Realms
Interoperability
Diagnostics
How do I...
Create and configure machines
Assign server instances to machines
Clone machines
Delete machines
Summary of Machines
Customize this table
New Clone Delete
Showing 0 to 0 of 0 Previous | Next
http://redevlv0066.us.oracle.com:17001/console/console.portal?_nfpb=true&_pageLabel=HomePage1
Internet
100%

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.

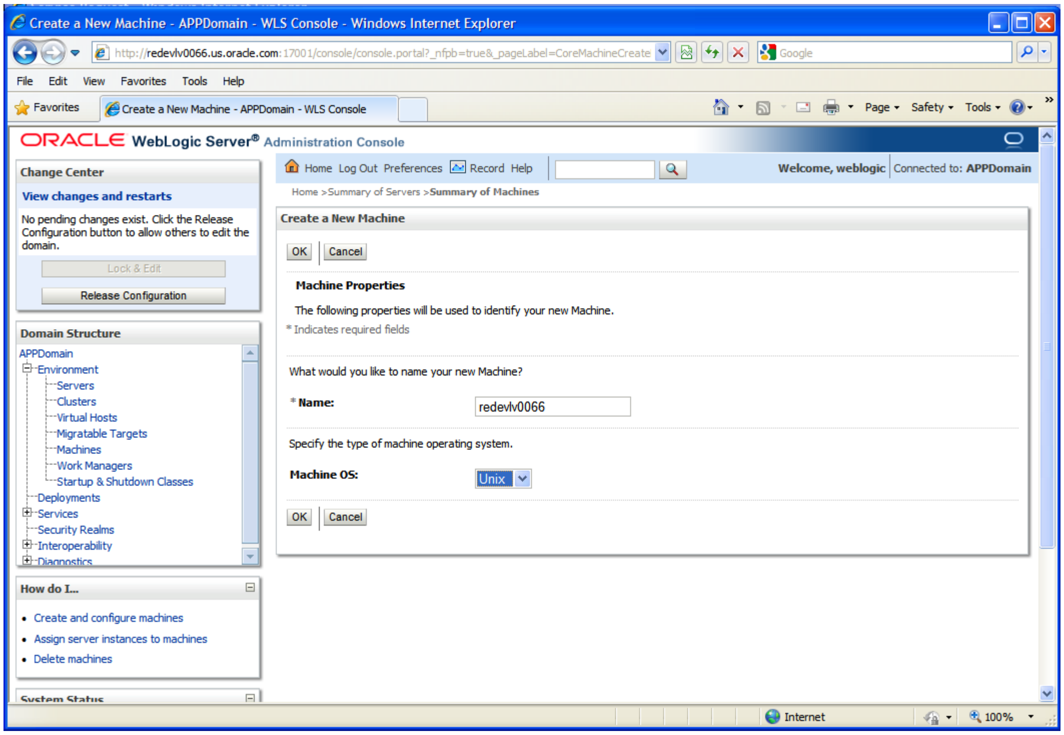
A machine is the logical representation of the computer that hosts one or more WebLogic Server instances (servers). WebLogic Server uses configured machine names to determine the optimum server in a cluster to which certain tasks, such as HTTP session replication, are delegated. The Administration Server uses the machine definition in conjunction with Node Manager to start remote servers.

This page displays key information about each machine that has been configured in the current WebLogic Server domain.

Machines

□	Name	Type
There are no items to display		

3. Click **New**.


Create a New Machine - APPDomain - WLS Console - Windows Internet Explorer
http://redevlv0066.us.oracle.com:17001/console/console.portal?_nfpb=true&_pageLabel=CoreMachineCreate
ORACLE WebLogic Server® Administration Console
Change Center
View changes and restarts
Lock & Edit
Release Configuration
Domain Structure
APPDomain
Environment
Servers
Clusters
Virtual Hosts
Migratable Targets
Machines
Work Managers
Startup & Shutdown Classes
Deployments
Services
Security Realms
Interoperability
Diagnostics
How do I...
Create and configure machines
Assign server instances to machines
Delete machines
System Status
Home Log Out Preferences Record Help
Welcome, weblogic
Connected to: APPDomain
Home >Summary of Servers >Summary of Machines
OK
Cancel

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.

Create a New Machine

Machine Properties

The following properties will be used to identify your new Machine.

* Indicates required fields

What would you like to name your new Machine?

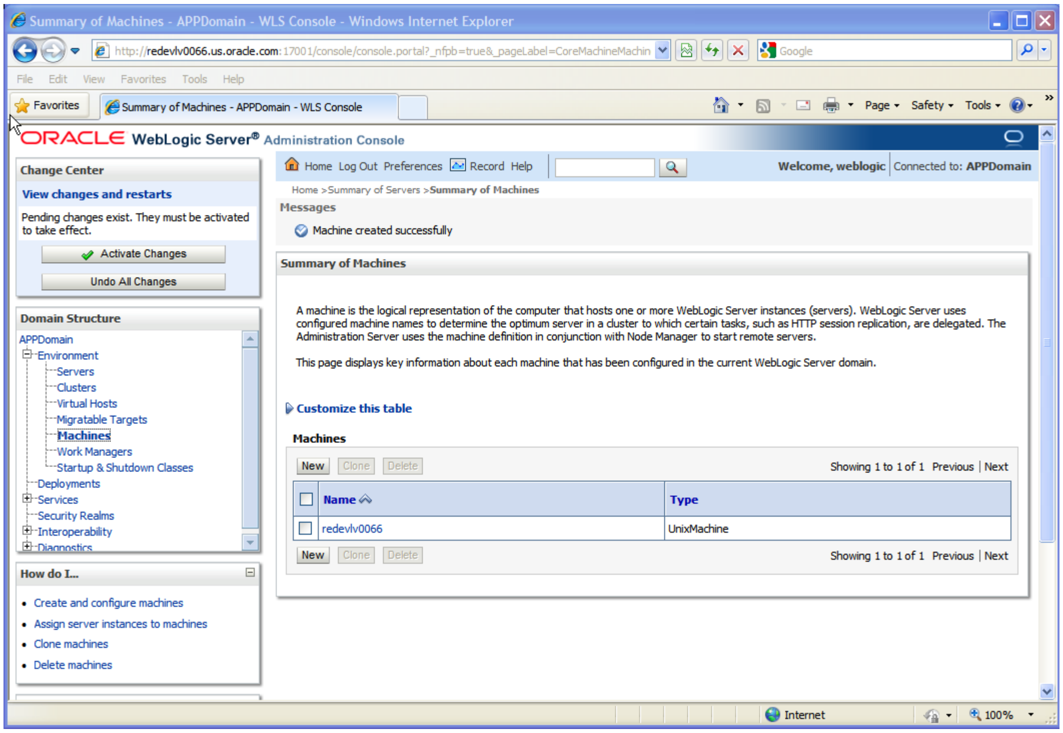
* Name: redevlv0066

Specify the type of machine operating system.

Machine OS: Unix

4. Set the following variables:
   - **Name**: Logical machine name
   - **Machine OS**: UNIX
5. Click **OK**.

6. Click on the machine created below.


Summary of Machines - APPDomain - WLS Console - Windows Internet Explorer
http://redevlv0066.us.oracle.com:17001/console/console.portal?_nfpb=true&_pageLabel=CoreMachineMachin
ORACLE WebLogic Server® Administration Console
Change Center
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Deployments
Services
Security Realms
Interoperability
Diagnostics
How do I...
Create and configure machines
Assign server instances to machines
Clone machines
Delete machines
Home Log Out Preferences Record Help
Welcome, weblogic Connected to: APPDomain
Home >Summary of Servers >Summary of Machines
Customize this table
New Clone Delete
Showing 1 to 1 of 1 Previous | Next

Pending changes exist. They must be activated to take effect.

Messages

Machine created successfully

Summary of Machines

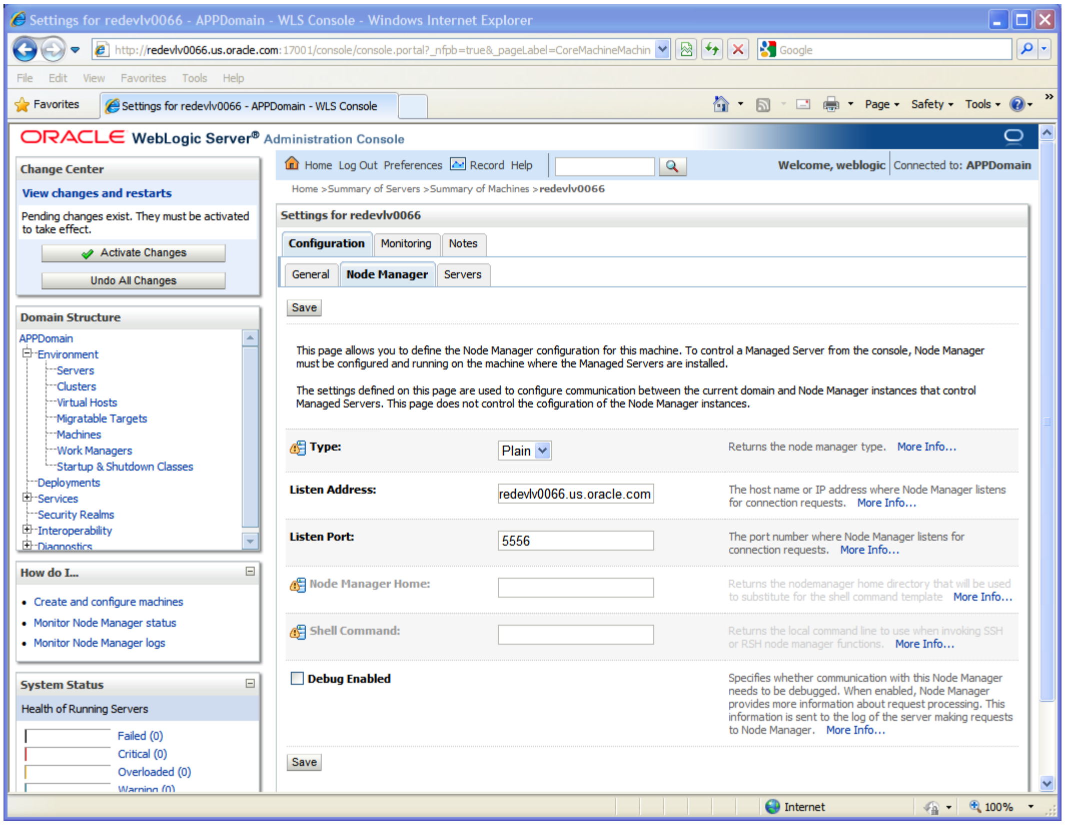
A machine is the logical representation of the computer that hosts one or more WebLogic Server instances (servers). WebLogic Server uses configured machine names to determine the optimum server in a cluster to which certain tasks, such as HTTP session replication, are delegated. The Administration Server uses the machine definition in conjunction with Node Manager to start remote servers.

This page displays key information about each machine that has been configured in the current WebLogic Server domain.

Machines

□	Name	Type
□	redevlv0066	UnixMachine

7. Click on the NodeManager tab and update the details below.
   - **Type**: Plain
   - **Listen Address**: redevlv0065.us.oracle.com
   - **Listen Port**: NodeManager will be assigned a default port (for example, 5556)


Settings for redevlv0066 - APPDomain - WLS Console - Windows Internet Explorer
http://redevlv0066.us.oracle.com:17001/console/console.portal?_nfpb=true&_pageLabel=CoreMachineMachin
File Edit View Favorites Tools Help
Favorites
Settings for redevlv0066 - APPDomain - WLS Console
Page Safety Tools
ORACLE WebLogic Server® Administration Console
Home Log Out Preferences Record Help
Welcome, weblogic
Connected to: APPDomain
Home >Summary of Servers >Summary of Machines >redevlv0066
Change Center
View changes and restarts
Activate Changes
Undo All Changes
Domain Structure
APPDomain
Environment
Servers
Clusters
Virtual Hosts
Migratable Targets
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Work Managers
Startup & Shutdown Classes
Deployments
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Interoperability
Diagnostics
How do I...
Create and configure machines
Monitor Node Manager status
Monitor Node Manager logs
System Status
Health of Running Servers
Failed (0)
Critical (0)
Overloaded (0)
Warning (0)
Configuration
Monitoring
Notes
General
Node Manager
Servers
Save
Internet
100%

Pending changes exist. They must be activated to take effect.

Settings for redevlv0066

This page allows you to define the Node Manager configuration for this machine. To control a Managed Server from the console, Node Manager must be configured and running on the machine where the Managed Servers are installed.

The settings defined on this page are used to configure communication between the current domain and Node Manager instances that control Managed Servers. This page does not control the cofiguration of the Node Manager instances.

Type: Plain — Returns the node manager type. More Info...

Listen Address: redevlv0066.us.oracle.com — The host name or IP address where Node Manager listens for connection requests. More Info...

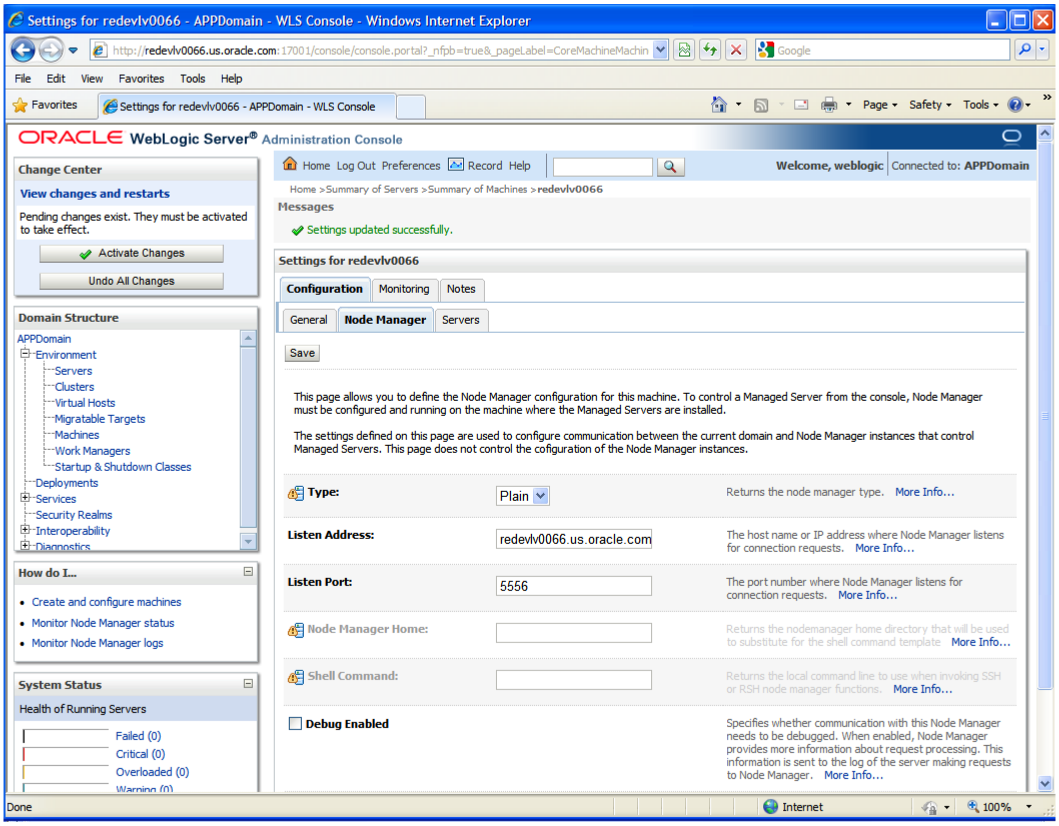
Listen Port: 5556 — The port number where Node Manager listens for connection requests. More Info...

Node Manager Home: — Returns the nodemanager home directory that will be used to substitute for the shell command template More Info...

Shell Command: — Returns the local command line to use when invoking SSH or RSH node manager functions. More Info...

☐ **Debug Enabled** — Specifies whether communication with this Node Manager needs to be debugged. When enabled, Node Manager provides more information about request processing. This information is sent to the log of the server making requests to Node Manager. More Info...

8. Click **Save**.



Settings for redevlv0066 - APPDomain - WLS Console - Windows Internet Explorer
http://redevlv0066.us.oracle.com:17001/console/console.portal?_nfpb=true&_pageLabel=CoreMachineMachin
File Edit View Favorites Tools Help
Favorites
Settings for redevlv0066 - APPDomain - WLS Console
Page Safety Tools
ORACLE WebLogic Server® Administration Console
Home Log Out Preferences Record Help
Welcome, weblogic Connected to: APPDomain
Change Center
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Activate Changes
Undo All Changes
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Machines
Work Managers
Startup & Shutdown Classes
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Security Realms
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Diagnostics
How do I...
Create and configure machines
Monitor Node Manager status
Monitor Node Manager logs
System Status
Health of Running Servers
Failed (0)
Critical (0)
Overloaded (0)
Warning (0)
Configuration
Monitoring
Notes
General
Node Manager
Servers
Save
Done
Internet
100%

Pending changes exist. They must be activated to take effect.

Home >Summary of Servers >Summary of Machines >redevlv0066

Messages

✓ Settings updated successfully.

Settings for redevlv0066

This page allows you to define the Node Manager configuration for this machine. To control a Managed Server from the console, Node Manager must be configured and running on the machine where the Managed Servers are installed.

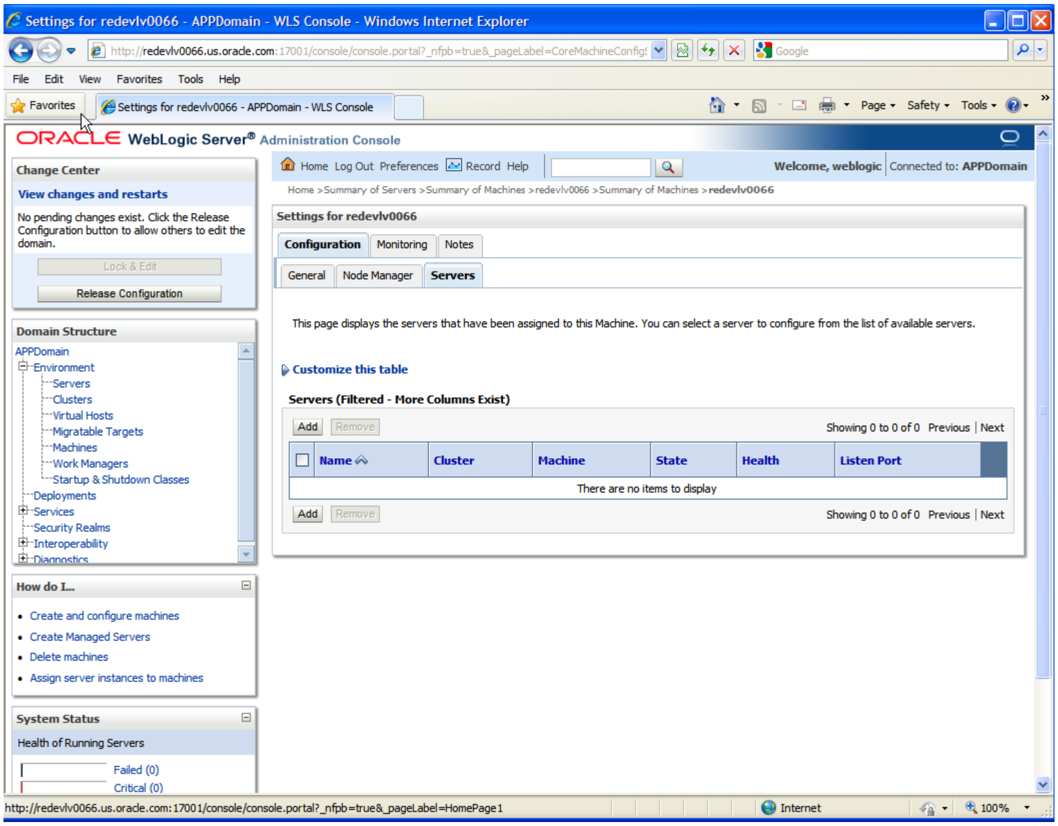
The settings defined on this page are used to configure communication between the current domain and Node Manager instances that control Managed Servers. This page does not control the cofiguration of the Node Manager instances.

Type:	Plain	Returns the node manager type. More Info...
Listen Address:	redevlv0066.us.oracle.com	The host name or IP address where Node Manager listens for connection requests. More Info...
Listen Port:	5556	The port number where Node Manager listens for connection requests. More Info...
Node Manager Home:		Returns the nodemanager home directory that will be used to substitute for the shell command template More Info...
Shell Command:		Returns the local command line to use when invoking SSH or RSH node manager functions. More Info...
□ Debug Enabled		Specifies whether communication with this Node Manager needs to be debugged. When enabled, Node Manager provides more information about request processing. This information is sent to the log of the server making requests to Node Manager. More Info...

9. Click **Activate Changes**.

10. Click **Lock & Edit**.

11. Navigate to Environments > machines. Click on the machine name. Select the Servers tab.



Settings for redevlv0066 - APPDomain - WLS Console - Windows Internet Explorer
http://redevlv0066.us.oracle.com:17001/console/console.portal?_nfpb=true&_pageLabel=CoreMachineConfig
Google
File Edit View Favorites Tools Help
Favorites
Settings for redevlv0066 - APPDomain - WLS Console
Page Safety Tools
ORACLE WebLogic Server® Administration Console
Home Log Out Preferences Record Help
Welcome, weblogic Connected to: APPDomain
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How do I...
Create and configure machines
Create Managed Servers
Delete machines
Assign server instances to machines
System Status
Health of Running Servers
Failed (0)
Critical (0)
Configuration Monitoring Notes
General Node Manager Servers
Customize this table
Add Remove
Showing 0 to 0 of 0 Previous | Next
http://redevlv0066.us.oracle.com:17001/console/console.portal?_nfpb=true&_pageLabel=HomePage1
Internet
100%

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.

Home >Summary of Servers >Summary of Machines >redevlv0066 >Summary of Machines >redevlv0066

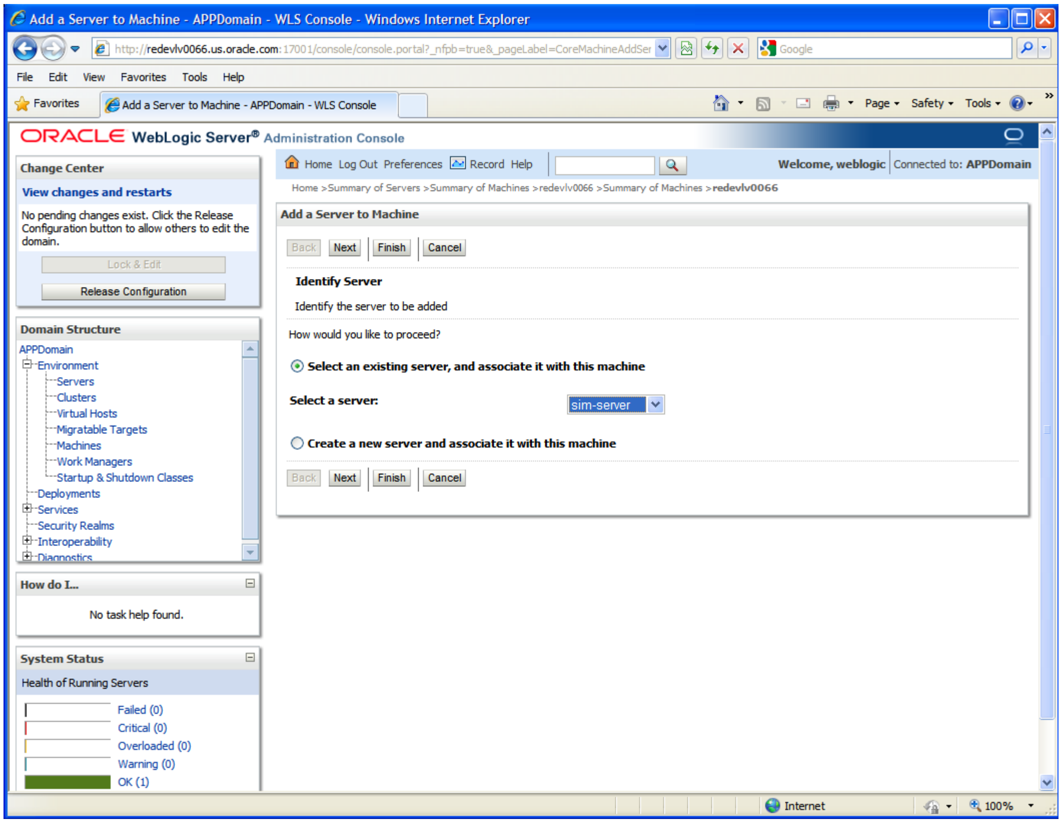
Settings for redevlv0066

This page displays the servers that have been assigned to this Machine. You can select a server to configure from the list of available servers.

Servers (Filtered - More Columns Exist)

□	Name	Cluster	Machine	State	Health	Listen Port
	There are no items to display					

12. Click **Add**. Add the managed servers that need to be configured with NodeManager.


Add a Server to Machine - APPDomain - WLS Console - Windows Internet Explorer
http://redevlv0066.us.oracle.com:17001/console/console.portal?_nfpb=true&_pageLabel=CoreMachineAddSer
File Edit View Favorites Tools Help
Favorites
Add a Server to Machine - APPDomain - WLS Console
Page Safety Tools
ORACLE WebLogic Server® Administration Console
Home Log Out Preferences Record Help
Welcome, weblogic Connected to: APPDomain
Home >Summary of Servers >Summary of Machines >redevlv0066 >Summary of Machines >redevlv0066
Change Center
View changes and restarts
Lock & Edit
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APPDomain
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Machines
Work Managers
Startup & Shutdown Classes
Deployments
Services
Security Realms
Interoperability
Diagnostics
How do I...
System Status
Health of Running Servers
Failed (0)
Critical (0)
Overloaded (0)
Warning (0)
OK (1)
Back Next Finish Cancel
Internet
100%

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.

No task help found.

Add a Server to Machine

Identify Server

Identify the server to be added

How would you like to proceed?

● **Select an existing server, and associate it with this machine**

Select a server: sim-server

○ **Create a new server and associate it with this machine**

13. Set the following variables:
    - Server: <sim-server>
14. Click **Next.** Click **Finish**.
15. Click **Activate Changes**.

> **Note:** To activate changes the server must be stopped:
>
> $WLS_HOME/user_projects/domains/<AppDomain>/bin
> /stopManagedWebLogic.sh adf_MS
> ${server_name}:${server_port}
>
> Go to each managed server that is being added to the machine and click the Server Start tab. In the Class Path box, add the following text after you have done a Lock & Edit:
>
> `<full-path-to-domain>/servers/<managed-server>`
>
> For example:
> `/u00/webadmin/product/10.3.3_RIB/WLS_64/user_projects/domains/APPDomain/servers/sim-server`

16. After the CLASSPATH changes are finished, click **Save.**
17. Click **Activate Changes**.
18. Start NodeManager from the server using the startNodeManager.sh at $WLS_HOME/wlserver_10.3/server/bin.

19. Update nodemanager.properties file at the following location and set the SecureListener variable to false.
    $WLS_HOME/wlserver_10.3/common/nodemanager/nodemanager.properties

    SecureListener=false

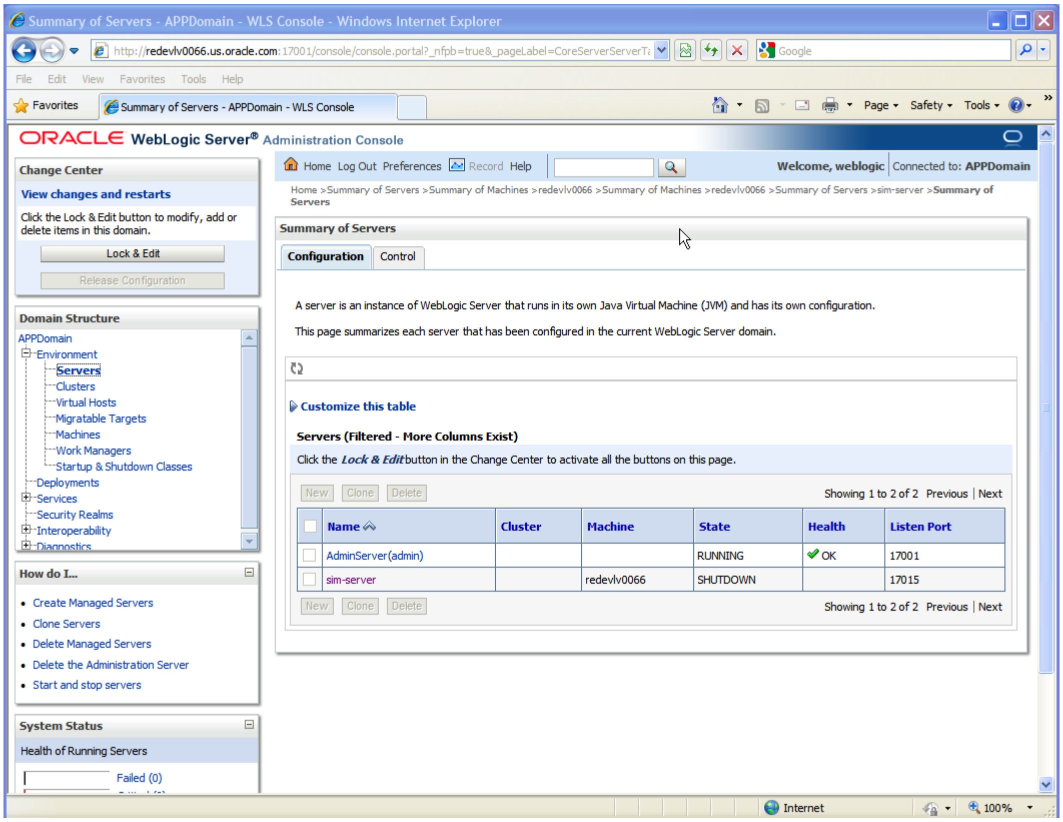
20. After making changes to the nodemanager.properties file, NodeManager must be restarted.

> **Note:** The nodemanager.properties file is created after NodeManager is started for the first time. It is not available before that point.

Start the Managed Server

After NodeManager is started, the managed servers can be started via the admin console.

1. Navigate to Environments > Servers. Select sim-server.



Click the Lock & Edit button to modify, add or delete items in this domain.

Home >Summary of Servers >Summary of Machines >redevlv0066 >Summary of Machines >redevlv0066 >Summary of Servers >sim-server >**Summary of Servers**

Summary of Servers

A server is an instance of WebLogic Server that runs in its own Java Virtual Machine (JVM) and has its own configuration.

This page summarizes each server that has been configured in the current WebLogic Server domain.

Servers (Filtered - More Columns Exist)

Click the ***Lock & Edit*** button in the Change Center to activate all the buttons on this page.

Showing 1 to 2 of 2

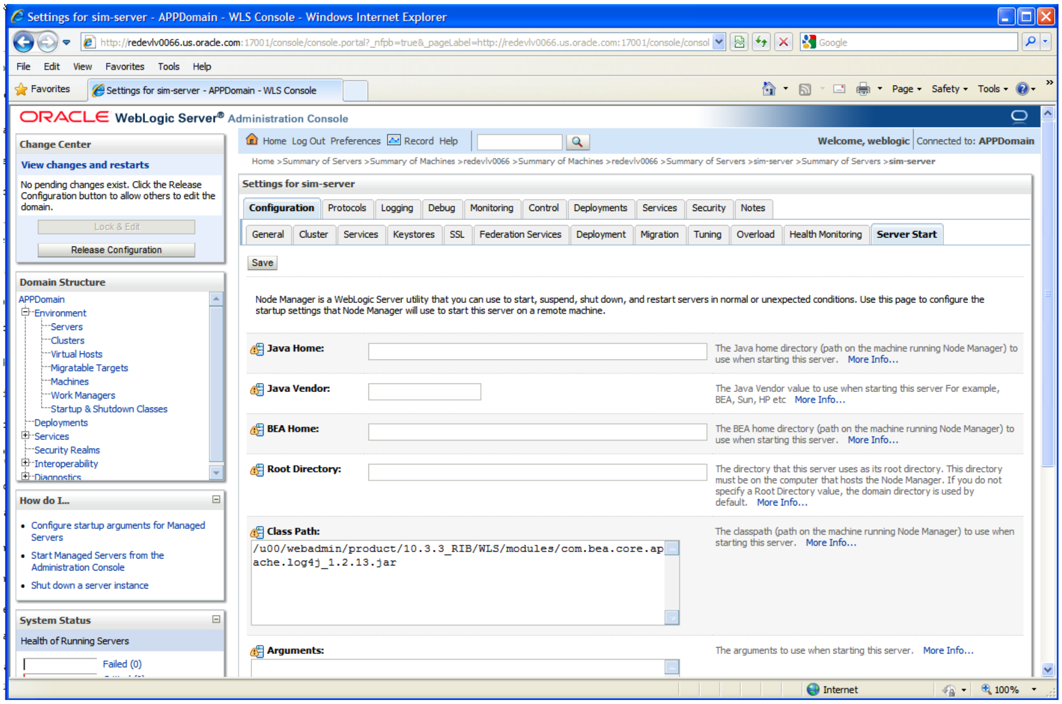
□	Name	Cluster	Machine	State	Health	Listen Port
□	AdminServer(admin)			RUNNING	✓ OK	17001
□	sim-server		redevlv0066	SHUTDOWN		17015

Showing 1 to 2 of 2

2. Click **Lock & Edit**. In WebLogic console > servers > <app>-server->server start tab > Classpath, apply the following text.

```
<WLS_HOME>/modules/com.bea.core.apache.log4j_1.2.13.jar
```

3. Click **Activate Changes**.


Settings for sim-server - APPDomain - WLS Console - Windows Internet Explorer
File Edit View Favorites Tools Help
ORACLE WebLogic Server® Administration Console
Home Log Out Preferences Record Help
Welcome, weblogic Connected to: APPDomain
Home >Summary of Servers >Summary of Machines >redevlv0066 >Summary of Machines >redevlv0066 >Summary of Servers >sim-server >Summary of Servers >sim-server
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View changes and restarts
Lock & Edit
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APPDomain
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Interoperability
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How do I...
Configure startup arguments for Managed Servers
Start Managed Servers from the Administration Console
Shut down a server instance
System Status
Health of Running Servers
Failed (0)
Settings for sim-server
Configuration Protocols Logging Debug Monitoring Control Deployments Services Security Notes
General Cluster Services Keystores SSL Federation Services Deployment Migration Tuning Overload Health Monitoring Server Start
Save
Internet
100%

No pending changes exist. Click the Release Configuration button to allow others to edit the domain.

Node Manager is a WebLogic Server utility that you can use to start, suspend, shut down, and restart servers in normal or unexpected conditions. Use this page to configure the startup settings that Node Manager will use to start this server on a remote machine.

Java Home: The Java home directory (path on the machine running Node Manager) to use when starting this server. More Info...

Java Vendor: The Java Vendor value to use when starting this server For example, BEA, Sun, HP etc More Info...

BEA Home: The BEA home directory (path on the machine running Node Manager) to use when starting this server. More Info...

Root Directory: The directory that this server uses as its root directory. This directory must be on the computer that hosts the Node Manager. If you do not specify a Root Directory value, the domain directory is used by default. More Info...

Class Path: `/u00/webadmin/product/10.3.3_RIB/WLS/modules/com.bea.core.apache.log4j_1.2.13.jar` The classpath (path on the machine running Node Manager) to use when starting this server. More Info...

Arguments: The arguments to use when starting this server. More Info...

4. Export WEBLOGIC_DOMAIN_HOME=<WLS_HOME>/user_projects/domains/<domain name>

5. Update <WLS_HOME>/server/lib/weblogic.policy file with the information below.

> **Note:** If copying the following text from this guide to UNIX, ensure that it is properly formatted in UNIX. Each line entry beginning with "permission" must terminate on the same line with a semi colon. Also, the AdminServer must be restarted for these changes to take effect.

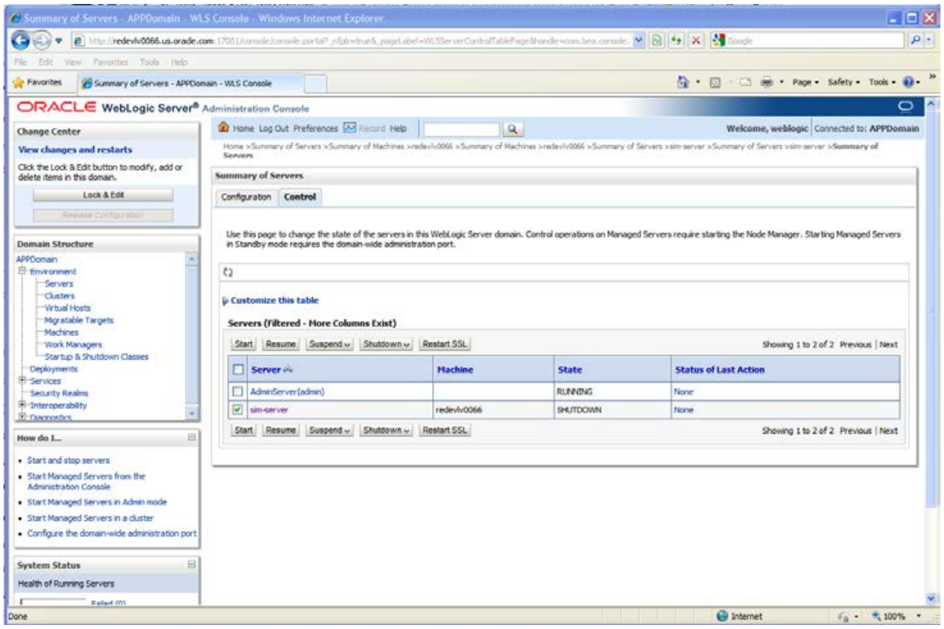
> **Note:** <WEBLOGIC_DOMAIN_HOME> in the example below is the full path of the WebLogic domain; <managed_server> is the RPM managed server created. See the example. There should not be any space between file:<WEBLOGIC_DOMAIN_HOME.

```
grant codeBase
"file:<WEBLOGIC_DOMAIN_HOME>/servers/<managed_server>/tmp/_WL_user/-"
{
permission java.security.AllPermission;
permission
oracle.security.jps.service.credstore.CredentialAccessPermission "
credstoressp.credstore", "read,write,update,delete";
permission
oracle.security.jps.service.credstore.CredentialAccessPermission "
credstoressp.credstore.*", "read,write,update,delete";
};
```

```
grant codeBase
"file:<WEBLOGIC_DOMAIN_HOME>/servers/<managed_server>/cache/EJBCompil
erCache/-" {
permission java.security.AllPermission;
permission
oracle.security.jps.service.credstore.CredentialAccessPermission
"credstoressp.credstore", "read,write,update,delete";
permission
oracle.security.jps.service.credstore.CredentialAccessPermission
"credstoressp.credstore.*", "read,write,update,delete";
};

An example of the full entry that might be entered is:
grant codeBase
"file:/u00/webadmin/product/10.3.3/WLS/user_projects/domains/APPDomai
n/servers/sim-server/tmp/_WL_user/-" {
permission java.security.AllPermission;
permission
oracle.security.jps.service.credstore.CredentialAccessPermission "
credstoressp.credstore", "read,write,update,delete";
permission
oracle.security.jps.service.credstore.CredentialAccessPermission "
credstoressp.credstore.*", "read,write,update,delete";
};
grant codeBase
"file:/u00/webadmin/product/10.3.3/WLS/user_projects/domains/APPDomai
n/servers/sim-server/cache/EJBCompilerCache/-" {
permission java.security.AllPermission;
permission
oracle.security.jps.service.credstore.CredentialAccessPermission
"credstoressp.credstore", "read,write,update,delete";
permission
oracle.security.jps.service.credstore.CredentialAccessPermission
"credstoressp.credstore.*", "read,write,update,delete";
};
```

6. Start the sim-server. Navigate to Environments > Servers > Control Tab. Select the sim-server and click **Start**.


Summary of Servers - APPDomain - WLS Console - Windows Internet Explorer
http://redevlv0066.us.oracle.com
File Edit View Favorites Tools Help
Favorites
Summary of Servers - APPDomain - WLS Console
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Diagnostics
How do I...
Start and stop servers
Start Managed Servers from the Administration Console
Start Managed Servers in Admin mode
Start Managed Servers in a cluster
Configure the domain-wide administration port
System Status
Health of Running Servers
Failed (0)
Summary of Servers
Configuration
Control
Customize this table
Start
Resume
Suspend
Shutdown
Restart SSL
Showing 1 to 2 of 2 Previous | Next
Done
Internet
100%

Click the Lock & Edit button to modify, add or delete items in this domain.

Home >Summary of Servers >Summary of Machines >redevlv0066 >Summary of Machines >redevlv0066 >Summary of Servers >sim-server >Summary of Servers >sim-server >Summary of Servers

Use this page to change the state of the servers in this WebLogic Server domain. Control operations on Managed Servers require starting the Node Manager. Starting Managed Servers in Standby mode requires the domain-wide administration port.

Servers (Filtered - More Columns Exist)

□	Server	Machine	State	Status of Last Action
□	AdminServer(admin)		RUNNING	None
☑	sim-server	redevlv0066	SHUTDOWN	None

Set the LANG Environment Variable

The LANG environment variable must be set in the profile of the UNIX user who owns the application server ORACLE_HOME files. If you change the value of LANG or set the value for the first time, you must restart the Application Server in order for the change to take effect.

Example:

LANG=en_US

export LANG

Expand the SIM Application Distribution

To expand the SIM application distribution, do the following.

1. Log in to the UNIX server as the user who owns the Web Logic installation. Create a new staging directory for the SIM application distribution (sim13application.zip). There should be a minimum of 300 MB disk space available for the application installation files.

   This location is referred to as INSTALL_DIR for the remainder of this chapter.
2. Copy sim13application.zip to <INSTALL_DIR> and extract its contents.

Run the SIM Application Installer

This installer configures and deploys the SIM application and Java WebStart client files.

1. Set the ORACLE_HOME, JAVA_HOME, and WEBLOGIC_DOMAIN_HOME environment variables. ORACLE_HOME should point to your WebLogic installation. JAVA_HOME should point to a valid Java 1.6 installation that is being used by WebLogic Application server. WEBLOGIC_DOMAIN_HOME should point to the full path of the domain into which SIM will be installed.
2. If you are using an X server such as Exceed, set the DISPLAY environment variable so that you can run the installer in GUI mode (recommended). If you are not using an X server, or the GUI is too slow over your network, unset DISPLAY for text mode.
3. Verify that the managed servers to which SIM will be installed are currently running.
4. Run the install.sh script. This launches the installer. After installation is completed, a detailed installation log file is created: <INSTALL_DIR>/sim/application/logs/sim-install-app.<timestamp>.log.

Note: The manual install option in the installer is not functional for this release. See the section, "Files not available to copy at the end of installation, results in non working applications – Weblogic only" in Appendix E: Common Installation Errors.

Note: See "Appendix: SIM Application WebLogic Server Installer Screens" for details on every screen and field in the WebLogic application installer.

Note: See "Appendix: Common Installation Errors" for details on common installation errors.

Clustered Installations – Post-Installation Steps

Skip this section if you are not clustering the application server.

If you are installing the SIM application to a clustered Web Logic Server environment, there are some extra steps you need to take to complete the installation. In these instructions, the application server node with the ORACLE_HOME you used for the SIM installer is referred to as the master server. All other nodes are referred to as the remote server.

Copy the <weblogic domain path>/retail/<deployed sim client app name> directory from the master server to each remote server that is a member of the cluster that contains the deployed sim application.

Review and/or Configure Oracle Single Sign-On

Skip this section if you are not using Single Sign-On for user identification and authentication.

Single Sign-On is applicable only to the JnlpLaunch Servlet. The JnlpLaunch Servlet is a dynamically protected application. The JnlpLaunch Servlet causes the SIM client application to execute under the SSO user name with a temporary password.

Note: The JnlpLaunch servlet may be configured for either an SSO or non-SSO environment.

HTTP Server configuration requirements: The HTTP Server must be registered with the Oracle Single Sign-On server and the mod_osso module enabled. The registration process typically involves running the ssoreg.sh script at the OSSO server installation and copying the output osso.conf file to the HTTP Server. This process is documented in the Oracle Single Sign-On administration documentation.

JnlpLaunch requirements: The JnlpLaunch Servlet uses the configuration file, JnlpLaunch.properties, to control its behavior. Due to security considerations, this file must not be published or readable to the general public.

JnlpLaunch.properties has the following configuration entries that apply to Single Sign-On:

- secret.key – Used to create the temporary password, this property should contain a random string. If JnlpLaunch is deployed in a different JVM than the SIM Server EJBs, this string must be an exact match between the JnlpLaunch Servlet and the one available to the SIM EJBs. For security purposes, each separate instance of the SIM application (for example, test versus development) should have a different secret key.
- user.validation.timeout – Number of seconds the SIM Server uses to determine if a temporary password is still valid.
- osso.used – Determines if the JnlpLaunch Servlet will throw a 499 error when an unathenticated user has been detected. This property must be set to True if Oracle Single Sign-On is used and False if not.

The JnlpLaunch.properties file is initialized by the SIM installer and should contain valid entries for SSO when the Enable Single Sign-On in SIM? prompt was answered by a Y or Yes. However, an administrator may want to alter the user.validation.timeout or other property after the initial installation.

For instructions for setting up SSO for WebLogic, see Appendix: Oracle Single Sign-On for WebLogic.

SIM Batch Scripts

The SIM batch programs are installed in the location that was specified during application installation.

The batch programs can be run from a different location if you cannot run them from under the application server <WEBLOGIC_DOMAIN_HOME>.. To install the batch files in a different location just copy the entire batch folder to the appropriate destination.

The batch directory is assumed to be located on the same server as the application server. If you copy the SIM batch directory to a location on a different server, then you need to configure the file path to the sim-batch.log file, which is defined in batch/resources/log4j.xml.

See the "Batch Detail" section of the *Oracle Retail Store Inventory Management Operations Guide* for information about how to run batches.

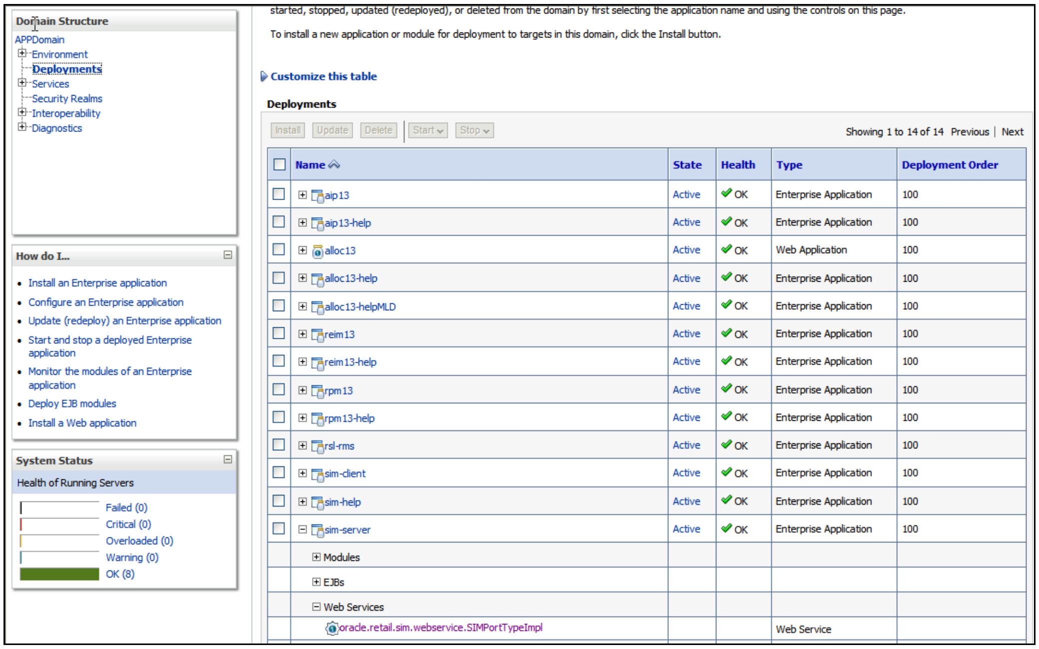
Configure Web Service Security in SIM

SIM web service is pre-configured with username-token-digest security policy.

User and role must be configured through WebLogic admin console as follows.

1. Create the user for the Web service. Click the **Security Realms** link in the **Domain Structure** window.
2. Default realm is displayed (for example, my realm). Click the link for the realm.
3. Click the **Users and Groups** tab.
4. Click **New**. Enter user name (for example, simwsuser) and password on the next screen. Leave the default value for Provider.
5. Click **OK** to save the changes. It will show the new user in the list of users

6. Navigate to the SIM web service deployment. Click the **Deployments** link in the **Domain Structure** window. Expand the **sim-server** deployment by clicking the "+" next to it. There should be a SIM Web service link at the bottom of the sim-client deployment list:



Domain Structure
APPDomain
⊞ Environment
Deployments
⊞ Services
Security Realms
⊞ Interoperability
⊞ Diagnostics

How do I...
- Install an Enterprise application
- Configure an Enterprise application
- Update (redeploy) an Enterprise application
- Start and stop a deployed Enterprise application
- Monitor the modules of an Enterprise application
- Deploy EJB modules
- Install a Web application

System Status
Health of Running Servers
Failed (0)
Critical (0)
Overloaded (0)
Warning (0)
OK (8)

started, stopped, updated (redeployed), or deleted from the domain by first selecting the application name and using the controls on this page.

To install a new application or module for deployment to targets in this domain, click the Install button.

Customize this table

Deployments

Install | Update | Delete | Start | Stop — Showing 1 to 14 of 14 Previous | Next

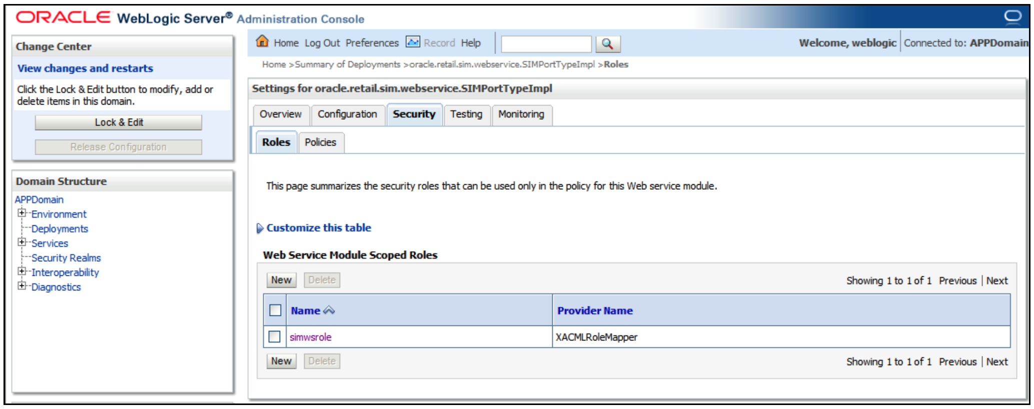
□	Name	State	Health	Type	Deployment Order
□	⊞ aip13	Active	✓ OK	Enterprise Application	100
□	⊞ aip13-help	Active	✓ OK	Enterprise Application	100
□	⊞ alloc13	Active	✓ OK	Web Application	100
□	⊞ alloc13-help	Active	✓ OK	Enterprise Application	100
□	⊞ alloc13-helpMLD	Active	✓ OK	Enterprise Application	100
□	⊞ reim13	Active	✓ OK	Enterprise Application	100
□	⊞ reim13-help	Active	✓ OK	Enterprise Application	100
□	⊞ rpm13	Active	✓ OK	Enterprise Application	100
□	⊞ rpm13-help	Active	✓ OK	Enterprise Application	100
□	⊞ rsl-rms	Active	✓ OK	Enterprise Application	100
□	⊞ sim-client	Active	✓ OK	Enterprise Application	100
□	⊞ sim-help	Active	✓ OK	Enterprise Application	100
□	⊟ sim-server	Active	✓ OK	Enterprise Application	100
	⊞ Modules				
	⊞ EJBs				
	⊟ Web Services				
	oracle.retail.sim.webservice.SIMPortTypeImpl			Web Service	

7. Click the Web Service link. Select Security tab. Select Roles tabs.

8. In the Roles tab, click **New**.

9. Enter the role name in the **Name** field (for example, simwsrole). Leave the **Provider Name** as the default.

10. Click **OK**. The newly created role is in the List tab.



Change Center
View changes and restarts
Click the Lock & Edit button to modify, add or delete items in this domain.
Lock & Edit
Release Configuration

Domain Structure
APPDomain
⊞ Environment
Deployments
⊞ Services
Security Realms
⊞ Interoperability
⊞ Diagnostics

Home Log Out Preferences Record Help — Welcome, weblogic | Connected to: APPDomain

Home >Summary of Deployments >oracle.retail.sim.webservice.SIMPortTypeImpl >Roles

Settings for oracle.retail.sim.webservice.SIMPortTypeImpl

Overview | Configuration | Security | Testing | Monitoring

Roles | Policies

This page summarizes the security roles that can be used only in the policy for this Web service module.

Customize this table

Web Service Module Scoped Roles

New | Delete — Showing 1 to 1 of 1 Previous | Next

□	Name	Provider Name
□	simwsrole	XACMLRoleMapper

New | Delete — Showing 1 to 1 of 1 Previous | Next

11. Associate the user to the role. Click the newly created role.

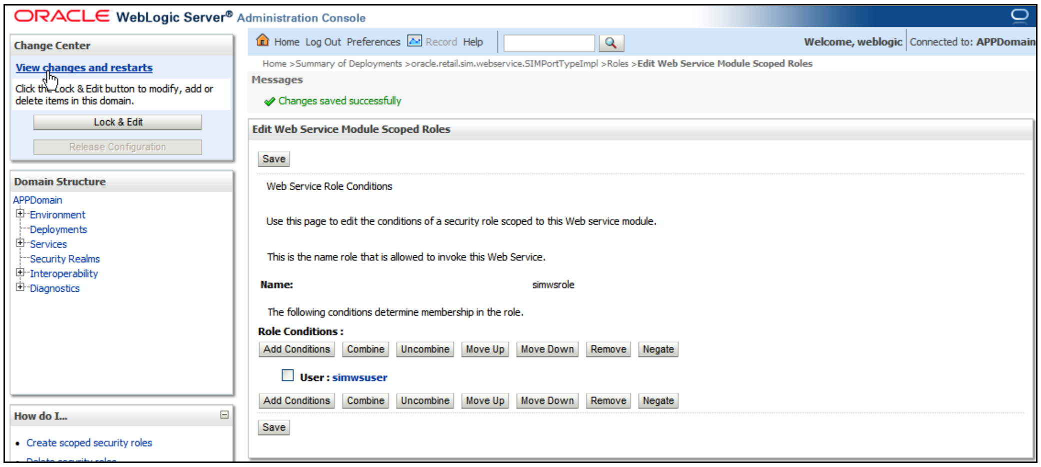
12. Click **Add Conditions**.

13. Select **User** in the **Predicate List** drop-down and click **Next**.

14. Enter the user name that was created in the security realm and click **Add**. It will get added to the list below the text box.

15. Click **Finish**.

16. Click **Save**.The SIM Web Service user is now associated to the SIM Web Service role:



Home >Summary of Deployments >oracle.retail.sim.webservice.SIMPortTypeImpl >Roles >Edit Web Service Module Scoped Roles

Click the Lock & Edit button to modify, add or delete items in this domain.

Messages

✓ Changes saved successfully

Edit Web Service Module Scoped Roles

Web Service Role Conditions

Use this page to edit the conditions of a security role scoped to this Web service module.

This is the name role that is allowed to invoke this Web Service.

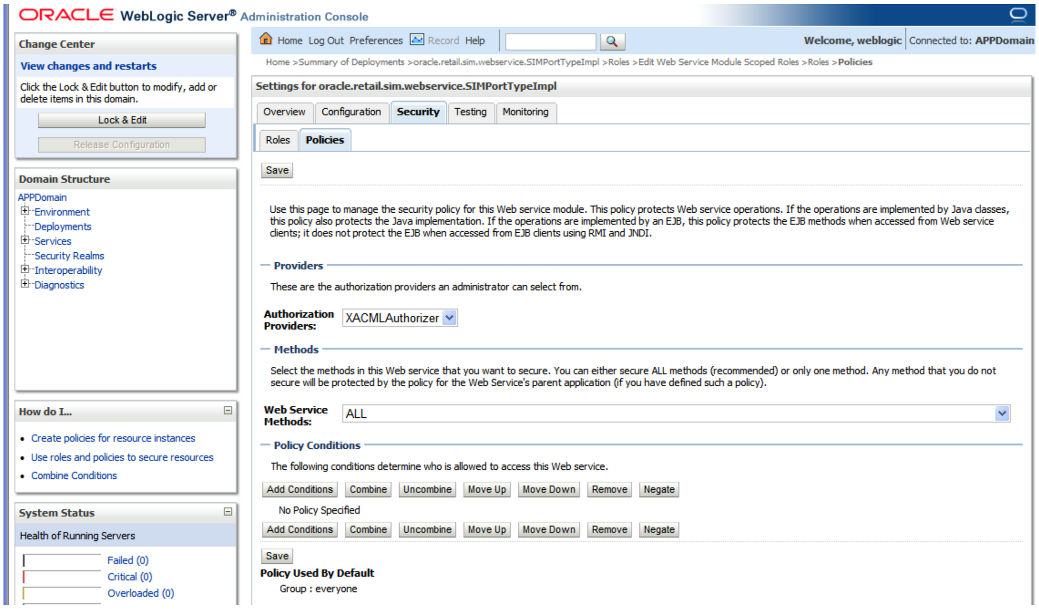
Name: simwsrole

The following conditions determine membership in the role.

Role Conditions :

□ **User : simwsuser**

17. Navigate back to the **Security > Policies** tab of the Web service.



Home >Summary of Deployments >oracle.retail.sim.webservice.SIMPortTypeImpl >Roles >Edit Web Service Module Scoped Roles >Roles >Policies

Click the Lock & Edit button to modify, add or delete items in this domain.

Settings for oracle.retail.sim.webservice.SIMPortTypeImpl

Use this page to manage the security policy for this Web service module. This policy protects Web service operations. If the operations are implemented by Java classes, this policy also protects the Java implementation. If the operations are implemented by an EJB, this policy protects the EJB methods when accessed from Web service clients; it does not protect the EJB when accessed from EJB clients using RMI and JNDI.

Providers

These are the authorization providers an administrator can select from.

Authorization Providers: XACMLAuthorizer

Methods

Select the methods in this Web service that you want to secure. You can either secure ALL methods (recommended) or only one method. Any method that you do not secure will be protected by the policy for the Web Service's parent application (if you have defined such a policy).

Web Service Methods: ALL

Policy Conditions

The following conditions determine who is allowed to access this Web service.

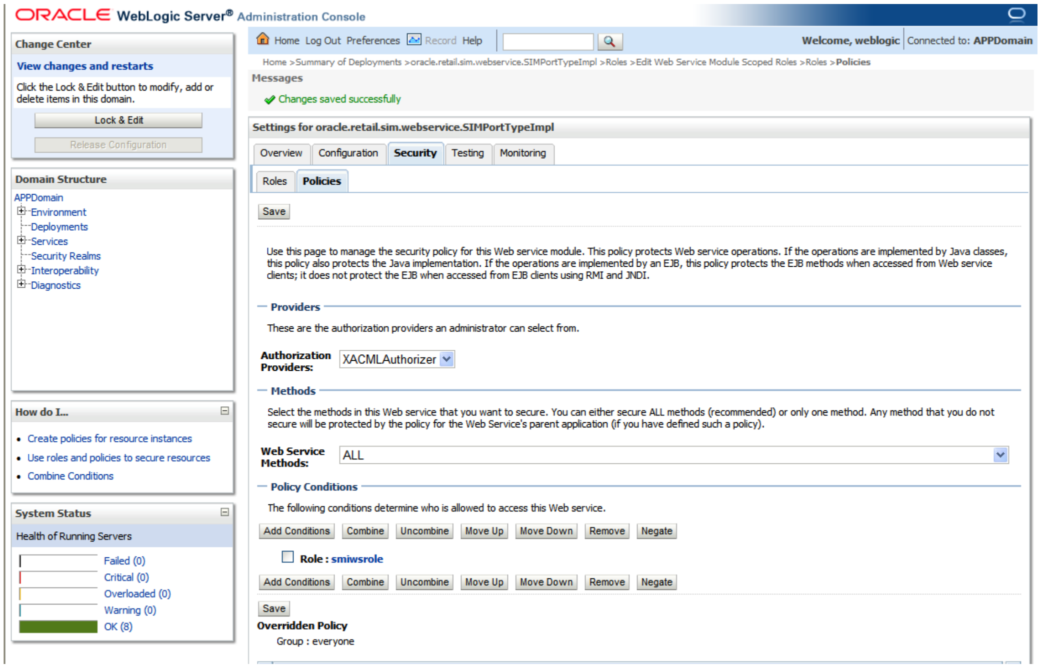
No Policy Specified

Policy Used By Default

Group : everyone

18. Click **Add Conditions**.

19. Select **Role** in the **Predicate List** drop down. Click **Next**.



Click the Lock & Edit button to modify, add or delete items in this domain.

Home >Summary of Deployments >oracle.retail.sim.webservice.SIMPortTypeImpl >Roles >Edit Web Service Module Scoped Roles >Roles >Policies

Messages

✓ Changes saved successfully

Settings for oracle.retail.sim.webservice.SIMPortTypeImpl

Use this page to manage the security policy for this Web service module. This policy protects Web service operations. If the operations are implemented by Java classes, this policy also protects the Java implementation. If the operations are implemented by an EJB, this policy protects the EJB methods when accessed from Web service clients; it does not protect the EJB when accessed from EJB clients using RMI and JNDI.

Providers

These are the authorization providers an administrator can select from.

Authorization Providers: XACMLAuthorizer

Methods

Select the methods in this Web service that you want to secure. You can either secure ALL methods (recommended) or only one method. Any method that you do not secure will be protected by the policy for the Web Service's parent application (if you have defined such a policy).

Web Service Methods: ALL

Policy Conditions

The following conditions determine who is allowed to access this Web service.

□ Role : smiwsrole

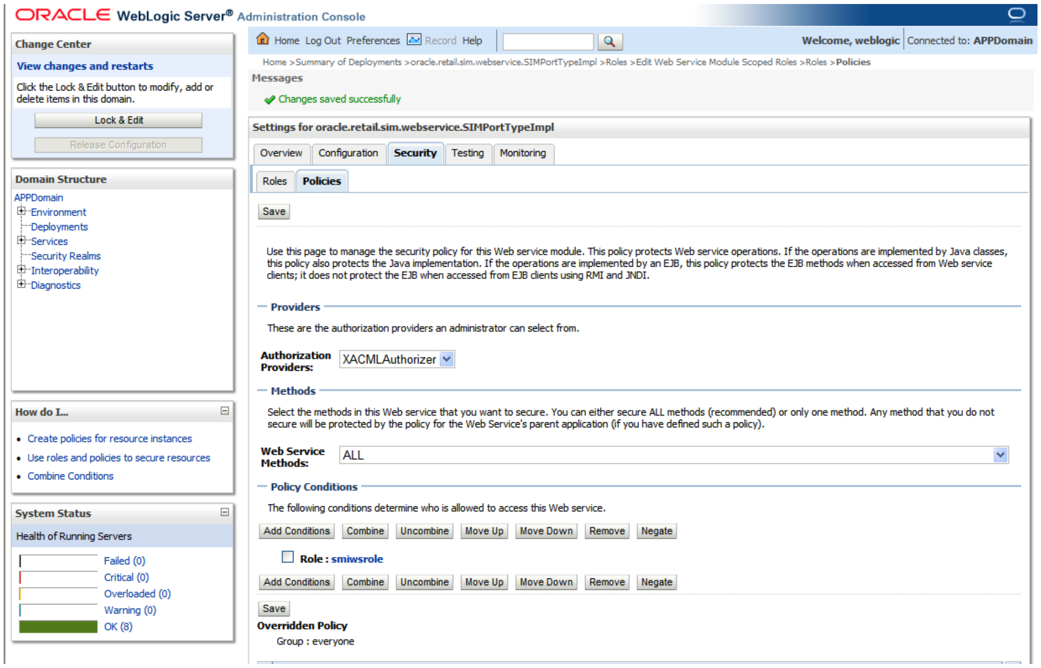
Overridden Policy

Group : everyone

20. Enter the role name that was created earlier. Click **Add**. The role is added to the list below the text box.

21. Click **Finish**.

22. Click **Save**.


Click the Lock & Edit button to modify, add or delete items in this domain.

Home >Summary of Deployments >oracle.retail.sim.webservice.SIMPortTypeImpl >Roles >Edit Web Service Module Scoped Roles >Roles >Policies

Messages

✓ Changes saved successfully

Settings for oracle.retail.sim.webservice.SIMPortTypeImpl

Use this page to manage the security policy for this Web service module. This policy protects Web service operations. If the operations are implemented by Java classes, this policy also protects the Java implementation. If the operations are implemented by an EJB, this policy protects the EJB methods when accessed from Web service clients; it does not protect the EJB when accessed from EJB clients using RMI and JNDI.

Providers

These are the authorization providers an administrator can select from.

Authorization Providers: XACMLAuthorizer

Methods

Select the methods in this Web service that you want to secure. You can either secure ALL methods (recommended) or only one method. Any method that you do not secure will be protected by the policy for the Web Service's parent application (if you have defined such a policy).

Web Service Methods: ALL

Policy Conditions

The following conditions determine who is allowed to access this Web service.

□ Role : smiwsrole

Overridden Policy

Group : everyone

Resolving Errors Encountered During Application Installation

If the application installer encounters any errors, it halts execution immediately. You can run the installer in silent mode so that you do not have to retype the settings for your environment. See Appendix D of this document for instructions on silent mode.

See Appendix E of this document for a list of common installation errors.

Since the application installation is a full reinstall every time, any previous partial installs are overwritten by the successful installation.

Web Help Files

The application installer automatically copies the web help files to the proper location. They are accessible from the help links within the application.

Starting and Stopping the Wavelink Server

In order to use handheld wireless devices with SIM, the Wavelink server must be running. The SIM application installer installs, configures, and starts the Wavelink server for you, so once the SIM application install is complete, the Wavelink server is ready to be used.

Note: If you use the Enterprise Manager to restart SIM, then you need to restart the Wavelink server manually.

If you use SIM's startup and shutdown scripts to restart SIM on the command line, then the Wavelink server will also be restarted along with SIM. However, if you use the Enterprise Manager to restart SIM, the Wavelink server is not affected. Thus it needs to be restarted manually once SIM is running again.

The Wavelink server scripts are installed into the <sim-wireless-directory>/bin.

Note: The wireless functionality in SIM is dependent on Wavelink and includes a client and server component. Wavelink software ensures that the wireless user interface of SIM can work with various handheld devices.

For the handheld to interact correctly with SIM, it is required to install the appropriate Wavelink studio client. The Wavelink studio client and its installation instructions can be found at http://www.wavelink.com/download/downloads.aspx.

The Oracle Retail Wireless Foundation Server is bundled with the SIM server. It has a single session free license. For multiple sessions additional licenses need to be obtained.

Contact your Oracle sales representative or client partner for Wavelink Studio Client and Oracle Retail Wireless Foundation Server license information.

Note: For configurations of physical handheld devices or wireless network setup, check your hardware manufacturer’s manual or Wavelink’s studio client information. This information is not covered in this guide.

7

Test the SIM Application

Once SIM database and application are installed, foundation data is imported into SIM, you should have a working SIM application installation. To launch the application client, open a web browser and go to the client URL. You can find the URL in the next steps section of the log file that was produced by the installer.

Example:

OAS: http://myhost:7778/sim-client/launch?template=sim_jnlp_template.vm

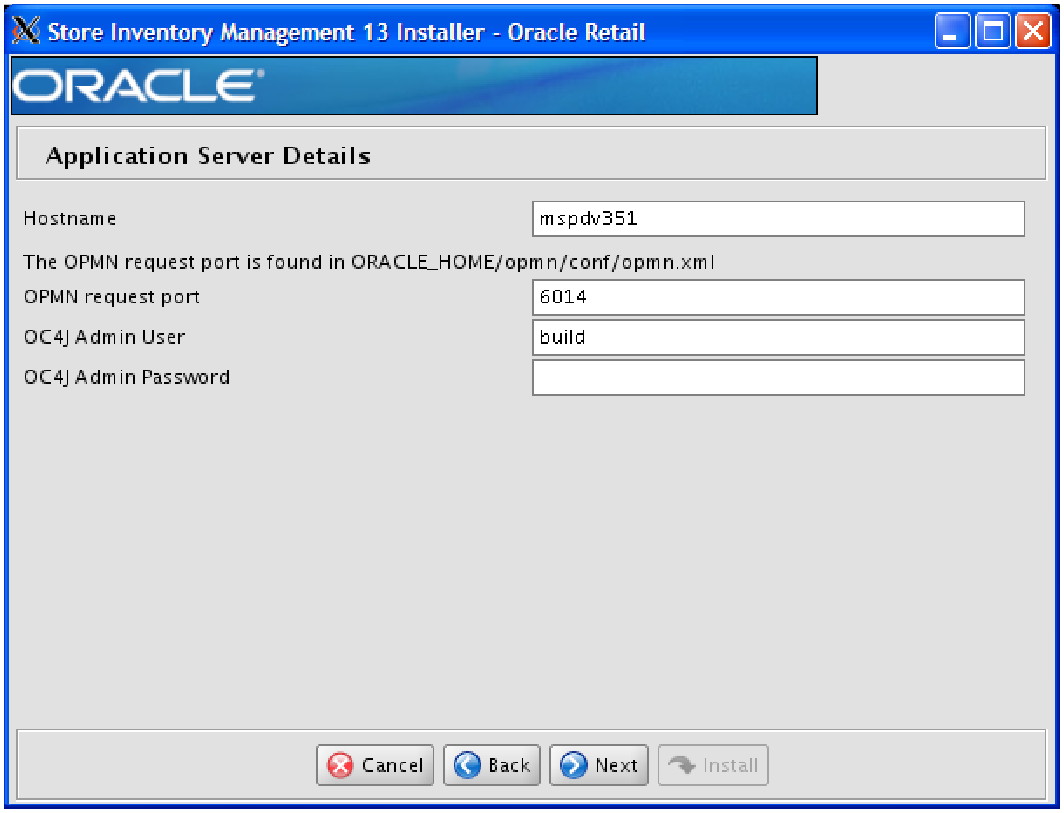
WLS: http://redevlv0066.us.oracle.com:17015/sim-client/launch?template=sim_jnlp_template.vm

A

Appendix: SIM Application Oracle Application Server (OAS) Installer Screens

You need the following details about your environment for the installer to successfully deploy the SIM application. Depending on the options you select, you may not see some screens.

Screen: Application Server Details



Store Inventory Management 13 Installer - Oracle Retail

Application Server Details

Hostname: mspdv351

The OPMN request port is found in ORACLE_HOME/opmn/conf/opmn.xml

OPMN request port: 6014

OC4J Admin User: build

OC4J Admin Password:

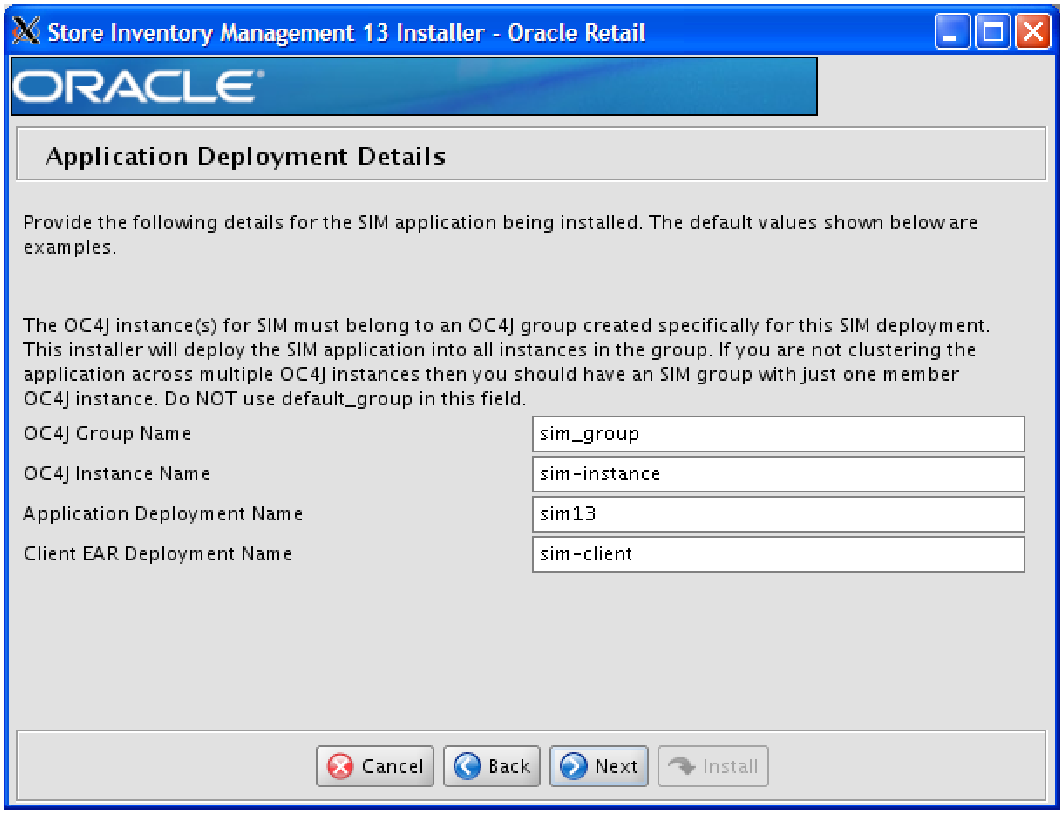
Field Title	Hostname
Field Description	The hostname of the server where the application server is installed
Destination	client.cfg, jndi.cfg,JnlpLaunch.properties
Example	myhost.us.oracle.com
Notes	Used by installer scripts to deploy EAR and WAR files and to create default inputs for client codebase and JNDI provider URL.

Field Title	OPMN request port
Field Description	The OPMN request port found in $ORACLE_HOME/opmn/conf/opmn.xml <port local="6100" remote="6200" request="6003"/>
Example	6003
Notes	Used by installer scripts to deploy EAR and WAR files and to create default input for JNDI provider URL.

Field Title	OC4J Admin User
Destination	jndi.cfg, JnlpLaunch.properties
Example	oc4jadmin
Notes	Used by installer scripts to deploy EAR and WAR files

Field Title	OC4J Admin Password
Field Description	The password of the OC4J Admin User.
Destination	jndi.cfg, JnlpLaunch.properties
Notes	Used by installer scripts to deploy EAR and WAR files.

Screen: Application Deployment Details



Application Deployment Details

Provide the following details for the SIM application being installed. The default values shown below are examples.

The OC4J instance(s) for SIM must belong to an OC4J group created specifically for this SIM deployment. This installer will deploy the SIM application into all instances in the group. If you are not clustering the application across multiple OC4J instances then you should have an SIM group with just one member OC4J instance. Do NOT use default_group in this field.

OC4J Group Name	sim_group
OC4J Instance Name	sim-instance
Application Deployment Name	sim13
Client EAR Deployment Name	sim-client

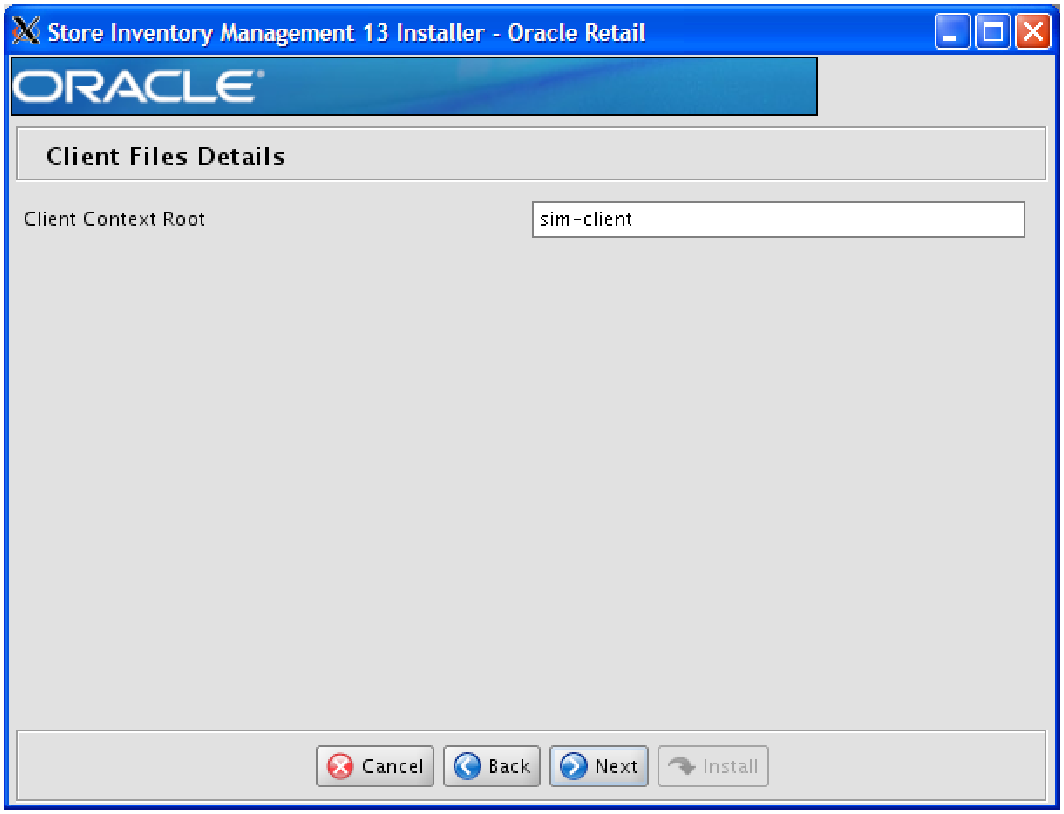
Field Title	OC4J Group Name
Field Description	Name of the OC4J group that was created for this SIM application. The OC4J instance given in the OC4J Instance Name field should be a member of this group. The installer deploys the SIM application to all OC4J instances which are members of this group. For this reason, you should not use default_group. A new group dedicated to SIM should be created instead.
Example	sim_group

Field Title	OC4J Instance Name
Field Description	The name of the OC4J instance to which the SIM application will be deployed.
Destination	log4j.xml, MANIFEST.MF, startup.sh, shutdown.sh
Example	sim-oc4j-instance

Field Title	Application Deployment Name
Field Description	The name used by the application server to identify the SIM application.
Example	sim13
Notes	Used by installer scripts to deploy the application and to create default values for JNDI provider URL.

Field Title	Client EAR Deployment Name
Field Description	The name used by the application server to deploy the sim-client.ear file.
Example	sim-client

Screen: Client Files Details

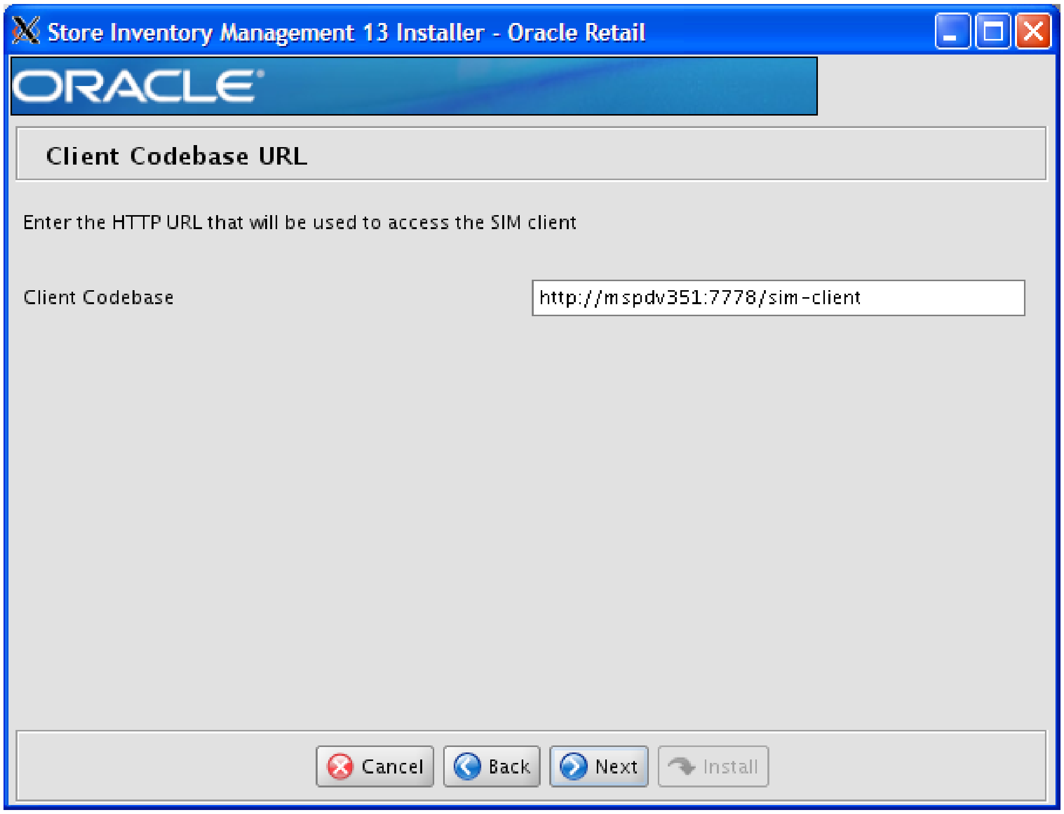

Store Inventory Management 13 Installer - Oracle Retail

Client Files Details

Client Context Root: sim-client

Field Title	Client Context Root
Field Description	Context root for sim-client.war
Destination	JnlpLaunch.properties
Example	sim-client
Notes	Used by installer to create default value for Client Codebase URL.

Screen: Client Codebase URL



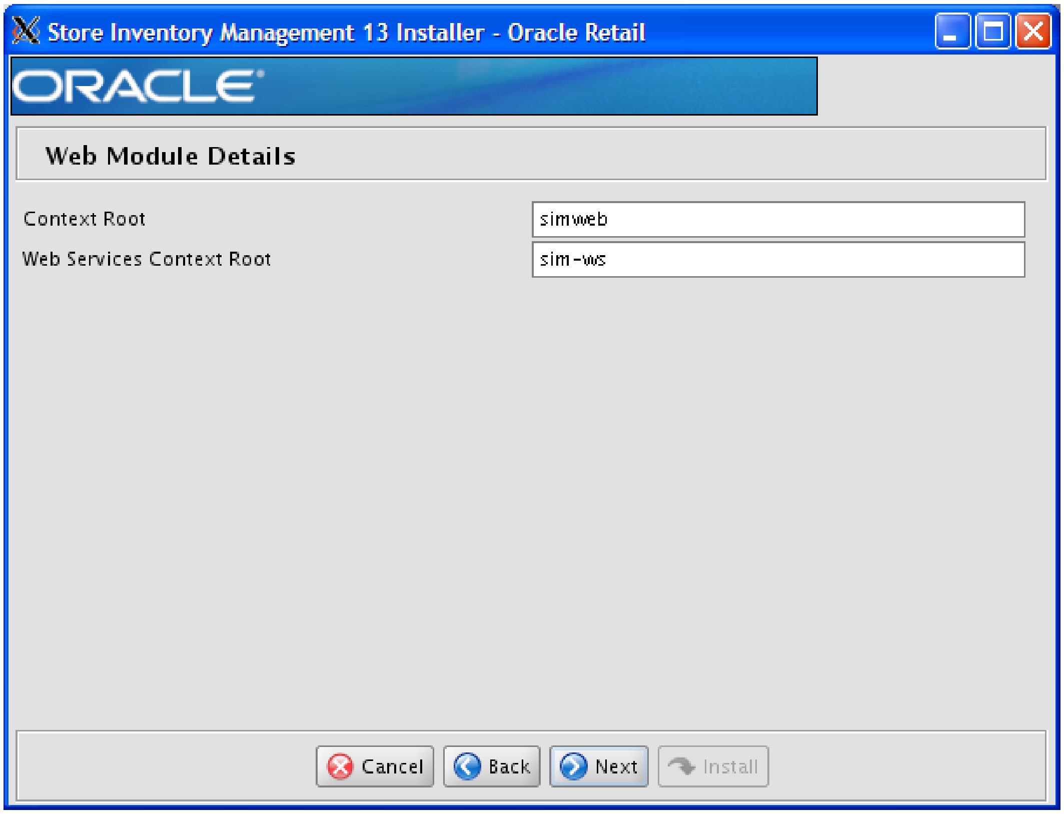
Client Codebase URL

Enter the HTTP URL that will be used to access the SIM client

Client Codebase: http://mspdv351:7778/sim-client

Field Title	Client Codebase
Field Description	The HTTP URL that points to the SIM client installation. The URL is made up of the Hostname, the HTTP port, and the Client Context Root.
Destination	JNLPLaunch.properties, sim_config.jnlp, client.cfg
Example	http://myhost:7777/sim-client
Notes	The Client Codebase URL must match the Client Context Root from the previous screen.

Screen: Web Module Details



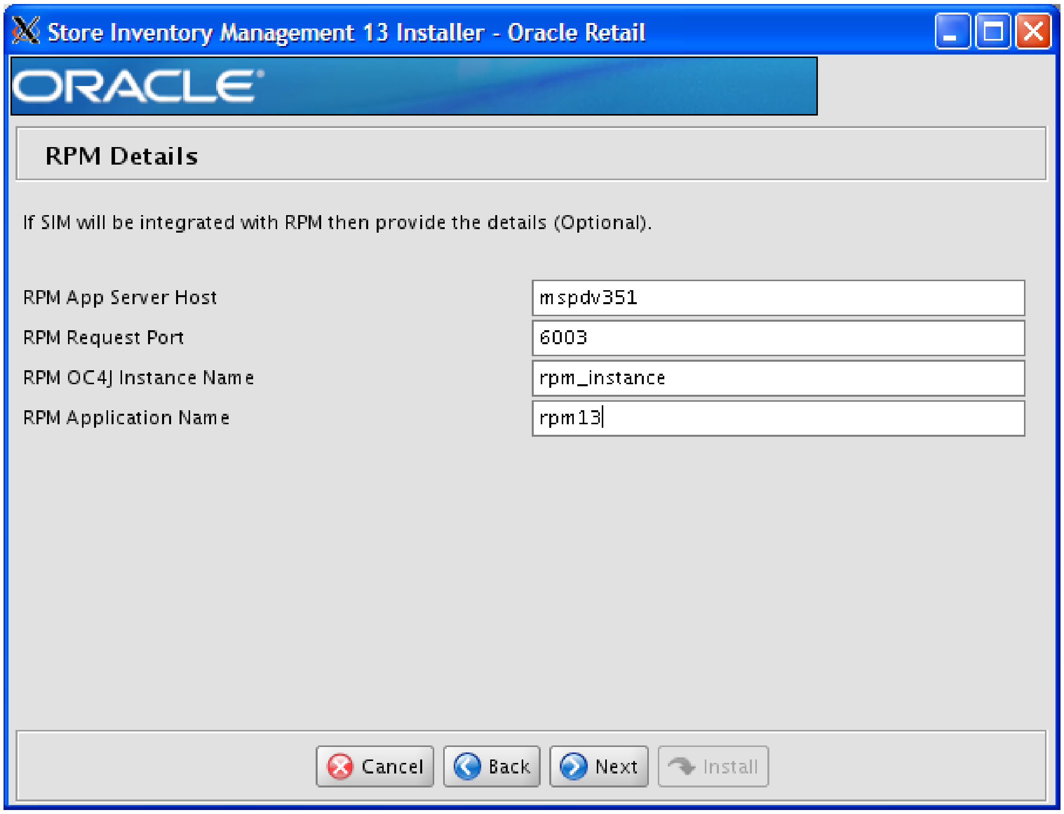
Context Root: simweb

Web Services Context Root: sim-ws

Field Title	Context Root
Field Description	The context root for sim.war.
Destination	application.xml
Example	simweb

Field Title	Web Services Context Root
Field Description	The context root for sim-ws.war.
Destination	application.xml
Example	sim-ws

Screen: RPM Details



RPM Details

If SIM will be integrated with RPM then provide the details (Optional).

RPM App Server Host	mspdv351
RPM Request Port	6003
RPM OC4J Instance Name	rpm_instance
RPM Application Name	rpm13

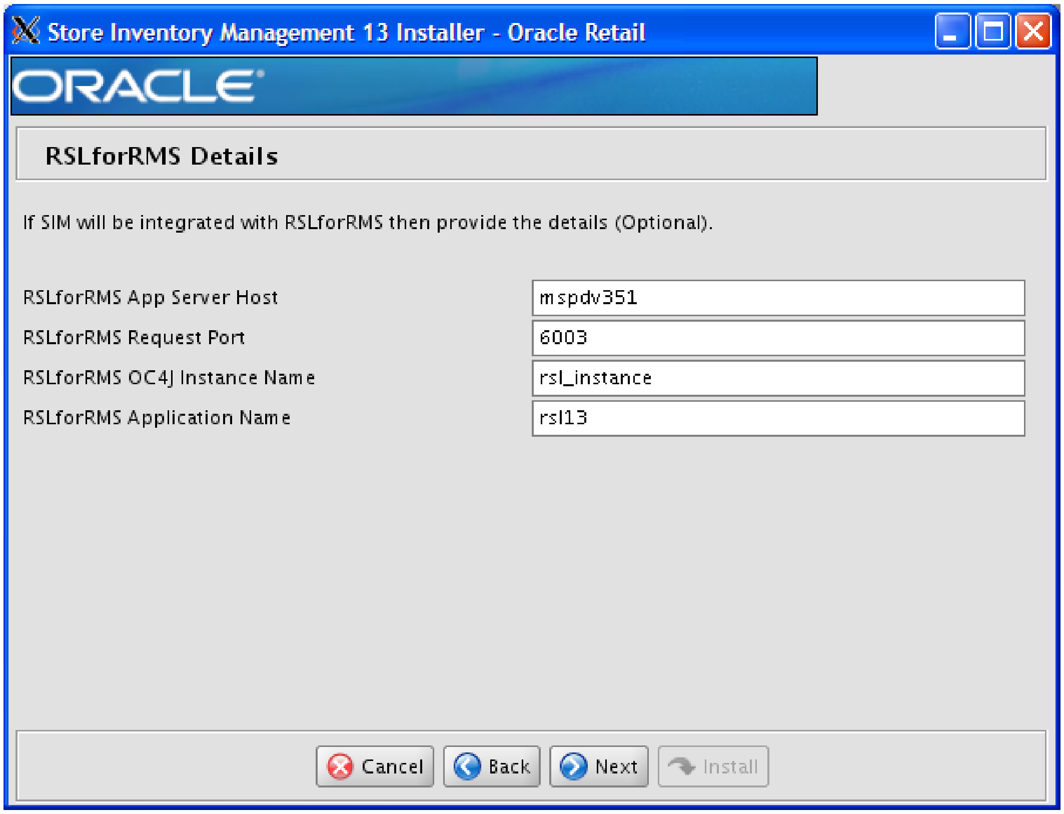
Field Title	RPM App Server Host
Field Description	The name of the application server host where the RPM application is installed.
Destination	jndi_providers.xml
Example	myhost.us.oracle.com
Notes	Used only if integrating SIM with RPM.

Field Title	RPM Request Port
Field Description	The OPMN request port for the application server where RPM is intalled. The OPMN request port is found in $ORACLE_HOME/opmn/conf/opmn.xml <port local="6100" remote="6200" request="6003"/>
Destination	jndi_providers.xml
Example	6003
Notes	Used only if integrating SIM with RPM.

Field Title	RPM OC4J Instance Name
Field Description	The name of the OC4J instance where the RPM application is installed.
Destination	jndi_providers.xml
Example	rpm-o4cj-instance
Notes	Used only if integrating SIM with RPM

Field Title	RPM Application Name
Field Description	The name that will be used by the application server to identify the RPM application.
Destination	jndi_providers.xml
Example	rpm13
Notes	Used only if integrating SIM with RPM.

Screen: RSLforRMS Details



RSLforRMS Details

If SIM will be integrated with RSLforRMS then provide the details (Optional).

RSLforRMS App Server Host	mspdv351
RSLforRMS Request Port	6003
RSLforRMS OC4J Instance Name	rsl_instance
RSLforRMS Application Name	rsl13

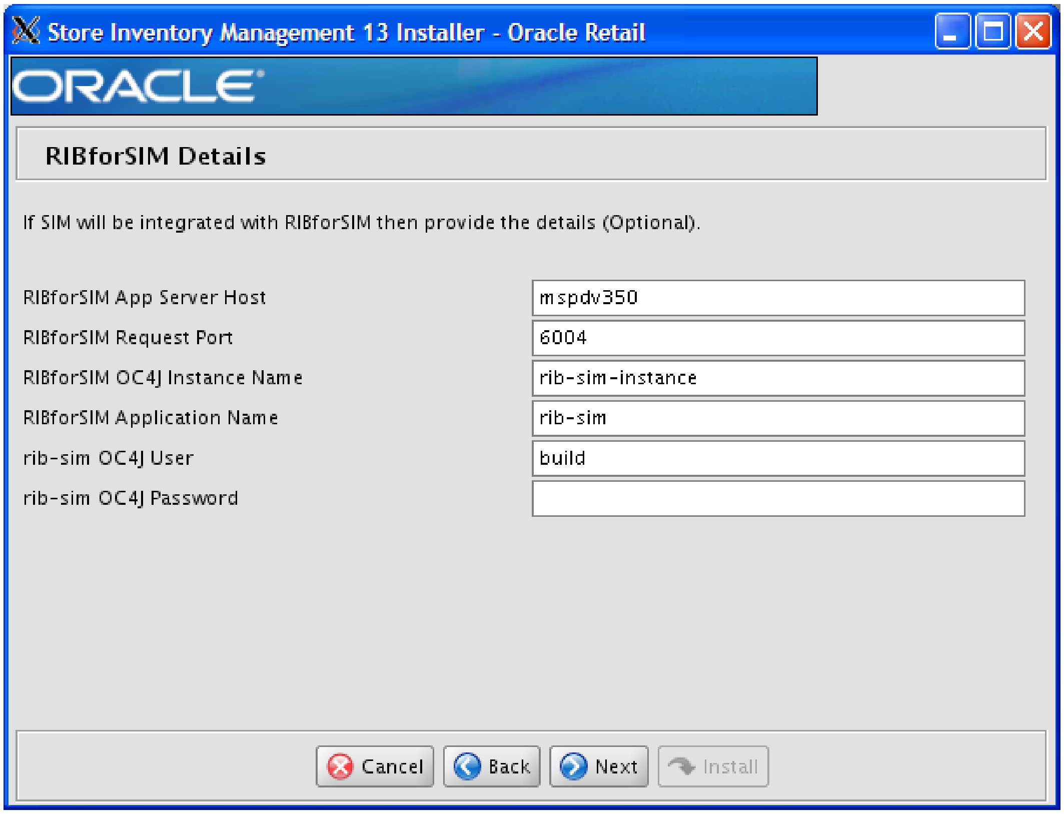
Field Title	RSLforRMS App Server Host
Field Description	The name of the application server host where the RSLforRMS application is installed.
Destination	jndi_providers.xml
Example	myhost.us.oracle.com
Notes	Used only if integrating SIM with RSLforRMS.

Field Title	RSLforRMS Request Port
Field Description	The OPMN request port for the application server where RSLforRMS is intalled. The OPMN request port is found in $ORACLE_HOME/opmn/conf/opmn.xml <port local="6100" remote="6200" request="6003"/>
Destination	jndi_providers.xml
Example	6003
Notes	Used only if integrating SIM with RSLforRMS.

Field Title	RSLforRMS OC4J Instance Name
Field Description	The name of the OC4J instance where the RSLforRMS application is installed.
Destination	jndi_providers.xml
Example	rsl-rms-o4cj-instance
Notes	Used only if integrating SIM with RSLforRMS.

Field Title	RSLforRMS Application Name
Field Description	The name that will be used by the application server to identify the RSLforRMS application.
Destination	jndi_providers.xml
Example	rsl-rsm
Notes	Used only if integrating SIM with RSLforRMS.

Screen: RIBforSIM Details



RIBforSIM Details

If SIM will be integrated with RIBforSIM then provide the details (Optional).

RIBforSIM App Server Host	mspdv350
RIBforSIM Request Port	6004
RIBforSIM OC4J Instance Name	rib-sim-instance
RIBforSIM Application Name	rib-sim
rib-sim OC4J User	build
rib-sim OC4J Password	

Field Title	RIBforSIM App Server Host
Field Description	The name of the application server host where the RIBforSIM application is installed.
Destination	jndi_providers_ribclient.xml
Example	myhost.us.oracle.com
Notes	Used only if integrating SIM with RIBforSIM.

Field Title	RIBforSIM Request Port
Field Description	The OPMN request port for the application server where RIBforSIM is intalled. The OPMN request port is found in $ORACLE_HOME/opmn/conf/opmn.xml <port local="6100" remote="6200" request="6003"/>
Destination	jndi_providers_ribclient.xml
Example	6003
Notes	Used only if integrating SIM with RIBforSIM.

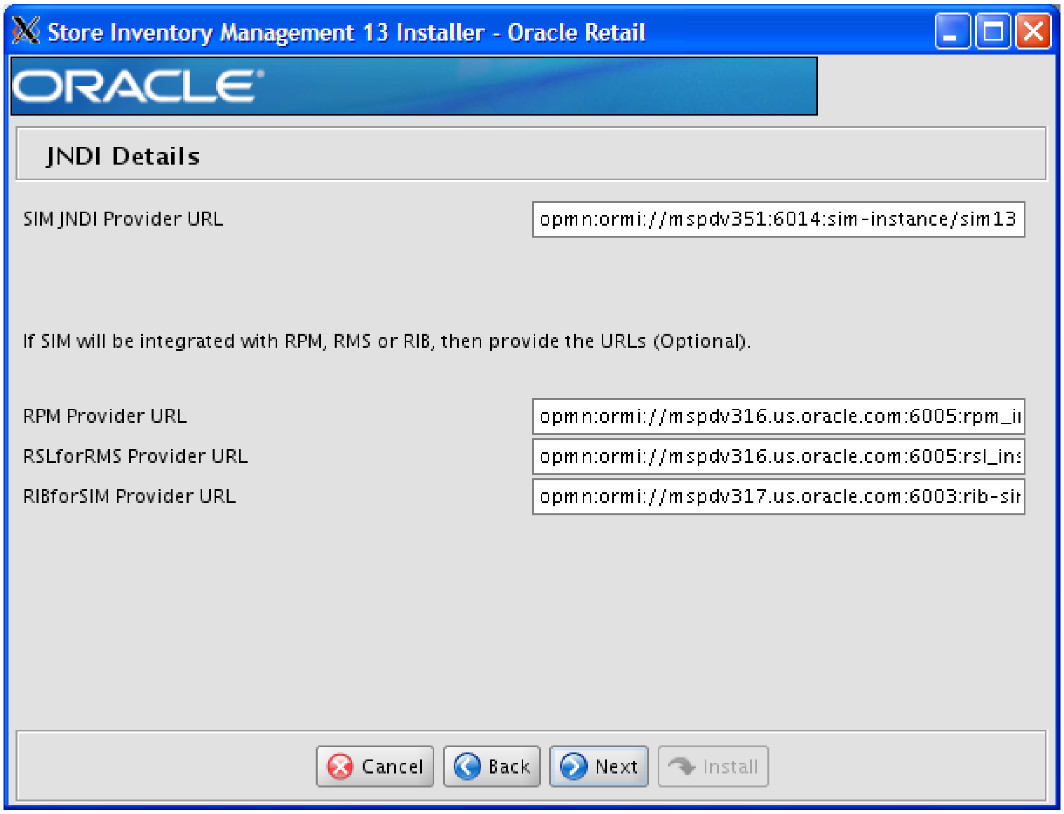
Field Title	RIBforSIM OC4J Instance Name
Field Description	The name of the OC4J instance where the RIBforSIM application is installed.
Destination	jndi_providers_ribclient.xml
Example	rib-sim-o4cj-instance
Notes	Used only if integrating SIM with RIBforSIM

Field Title	RIBforSIM Application Name
Field Description	The name that will be used by the application server to identify the RIBforSIM application.
Destination	jndi_providers_ribclient.xml
Example	rib-sim
Notes	Used only if integrating SIM with RIBforSIM.

Field Title	rib-sim OC4J User
Field Description	The OC4J Admin User for the OC4J instance where rib-sim is installed.
Destination	jndi_providers_ribclient.xml
Example	oc4jadmin
Notes	Used only if integrating SIM with RIBforSIM.

Field Title	rib-sim OC4J Password
Field Description	The password of the OC4J Admin User for the OC4J instance where rib-sim is installed.
Destination	jndi_providers_ribclient.xml
Notes	Used only if integrating SIM with RIBforSIM.

Screen: JNDI Details



JNDI Details

SIM JNDI Provider URL: opmn:ormi://mspdv351:6014:sim-instance/sim13

If SIM will be integrated with RPM, RMS or RIB, then provide the URLs (Optional).

RPM Provider URL: opmn:ormi://mspdv316.us.oracle.com:6005:rpm_i

RSLforRMS Provider URL: opmn:ormi://mspdv316.us.oracle.com:6005:rsl_in

RIBforSIM Provider URL: opmn:ormi://mspdv317.us.oracle.com:6003:rib-si

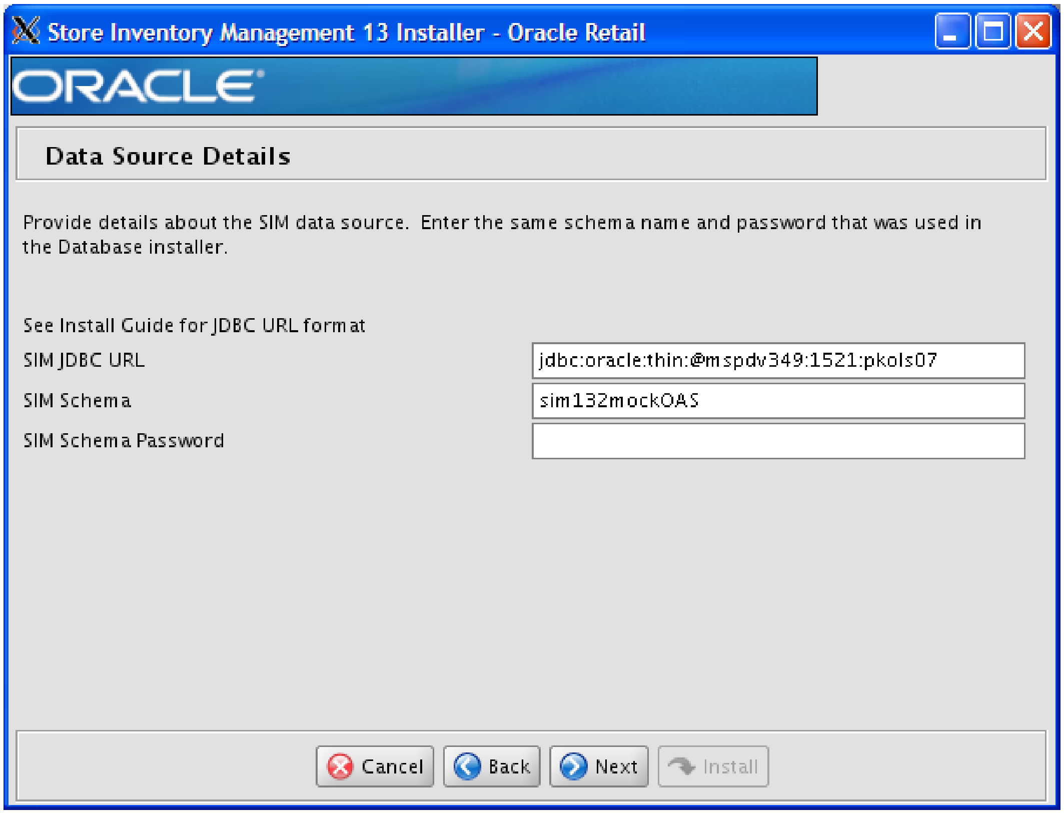
Field Title	SIM JNDI Provider URL
Field Description	JNDI provider URL for the SIM application.
Destination	jndi.cfg, JnlpLaunch.properties
Example	opmn:ormi://myhost.us.oracle.com:6003:sim-oc4j-instance/sim13
Notes	Confirm the JNDI provider URL, which is constructed based on previous inputs for Hostname, OPMN Request Port, OC4J Instance Name, and Application Deployment Name.

Field Title	RPM Provider URL
Field Description	JNDI provider URL for the RPM application.
Destination	jndi_providers.xml
Example	opmn:ormi://myhost.us.oracle.com:6003:rpm-oc4j-instance/rpm13
Notes	Confirm the JNDI provider URL, which is constructed based on previous inputs for Hostname, OPMN Request Port, OC4J Instance Name, and Application Deployment Name.

Field Title	RSLforRMS Provider URL
Field Description	JNDI provider URL for the RSLforRMS application.
Destination	jndi_providers.xml
Example	opmn:ormi://myhost.us.oracle.com:6003:rsl-rms-oc4j-instance/rsl
Notes	Confirm the JNDI provider URL, which is constructed based on previous inputs for Hostname, OPMN Request Port, OC4J Instance Name, and Application Deployment Name.

Field Title	RIBforSIM Provider URL
Field Description	JNDI provider URL for the RIBforSIM application.
Destination	jndi_providers.xml
Example	opmn:ormi://myhost.us.oracle.com:6003:rib-sim-oc4j-instance/rib-sim
Notes	Confirm the JNDI provider URL, which is constructed based on previous inputs for Hostname, OPMN Request Port, OC4J Instance Name, and Application Deployment Name.

Screen: Data Source Details



Data Source Details

Provide details about the SIM data source. Enter the same schema name and password that was used in the Database installer.

See Install Guide for JDBC URL format

SIM JDBC URL: jdbc:oracle:thin:@mspdv349:1521:pkols07

SIM Schema: sim132mockOAS

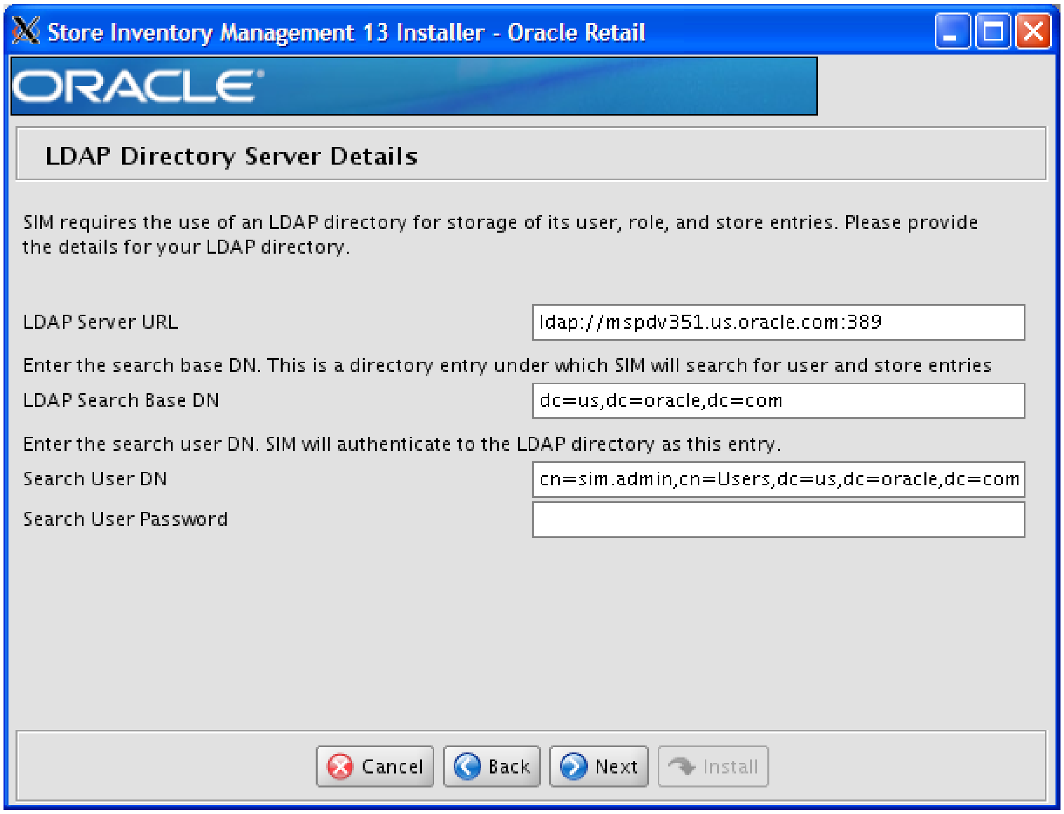
SIM Schema Password:

Field Title	SIM JDBC URL
Field Description	URL used by the SIM application to access the SIM database schema.
Destination	data-sources.xml
Example	jdbc:oracle:thin:@myhost:1521:mydatabase jdbc:oracle:thin:@(DESCRIPTION =(ADDRESS_LIST =(ADDRESS = (PROTOCOL = TCP)(HOST = myhost1)(PORT = 1521))(ADDRESS = (PROTOCOL = TCP)(HOST = myhost2)(PORT = 1521))(LOAD_BALANCE = yes))(CONNECT_DATA =(SERVICE_NAME = mydatabase)))

Field Title	SIM Schema
Field Description	The schema name
Destination	data-sources.xml
Notes	The schema name should match the name you provided when you ran the database schema installer.

Field Title	SIM Schema Password
Field Description	The password for the SIM Schema
Destination	data-sources.xml

Screen: LDAP Directory Server Details



LDAP Directory Server Details

SIM requires the use of an LDAP directory for storage of its user, role, and store entries. Please provide the details for your LDAP directory.

LDAP Server URL: ldap://mspdv351.us.oracle.com:389

Enter the search base DN. This is a directory entry under which SIM will search for user and store entries

LDAP Search Base DN: dc=us,dc=oracle,dc=com

Enter the search user DN. SIM will authenticate to the LDAP directory as this entry.

Search User DN: cn=sim.admin,cn=Users,dc=us,dc=oracle,dc=com

Search User Password:

Field Title	LDAP Server URL
Field Description	URL for your LDAP directory server.
Destination	Sim-server.ear/lib/sim-server-resources.jar/conf/ldap.cfg
Example	ldap://myhost:389

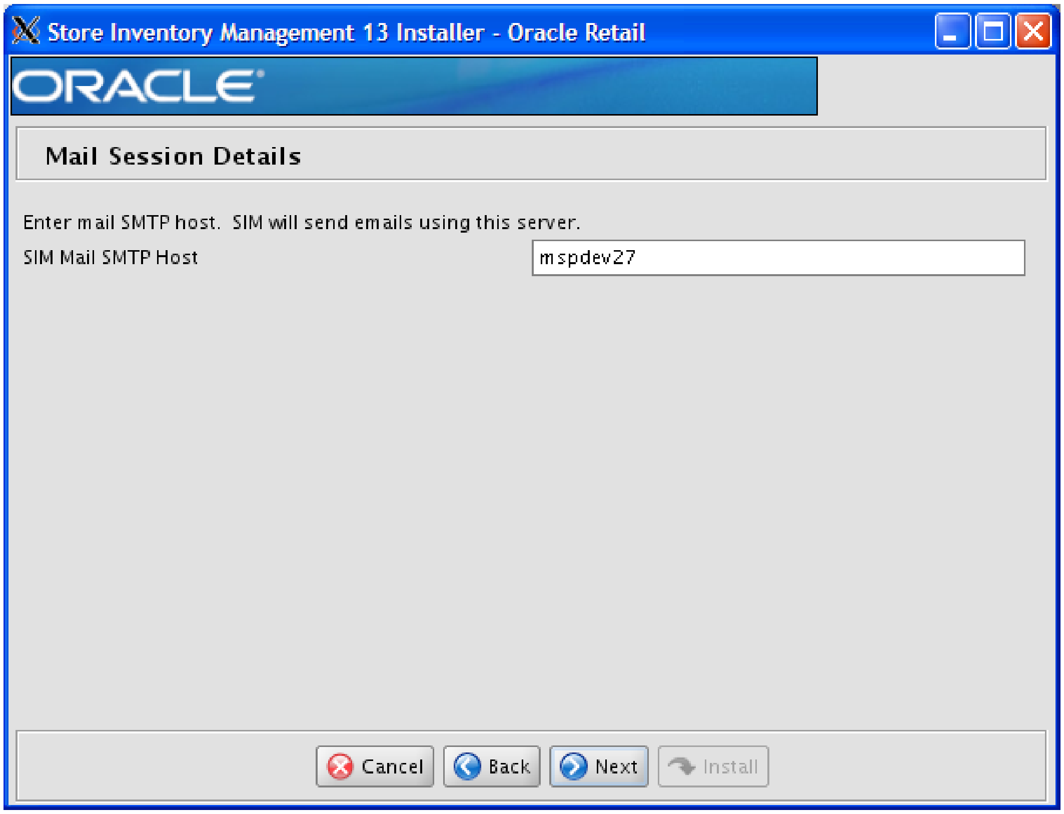
Field Title	LDAP Search Base DN
Field Description	Distinguished name of the LDAP directory entry under which SIM should search for users.
Destination	Sim-server.ear/lib/sim-server-resources.jar/conf/ldap.cfg
Example	cn=Users,dc=mycompany,dc=com

Field Title	Search User DN
Field Description	Distinguished name of the user that SIM will use to authenticate to the LDAP directory.
Destination	Sim-server.ear/lib/sim-server-resources.jar/conf/ldap.cfg
Example	cn=admin,dc=mycompany,dc=com

Field Title	Search User Password
Field Description	Password for the search user DN.
Destination	Sim-server.ear/lib/sim-server-resources.jar/conf/ldap.cfg

Note: For additional information about LDAP configuration see the *Oracle Retail Store Inventory Management Implementation Guide*.

Screen: Mail Session Details



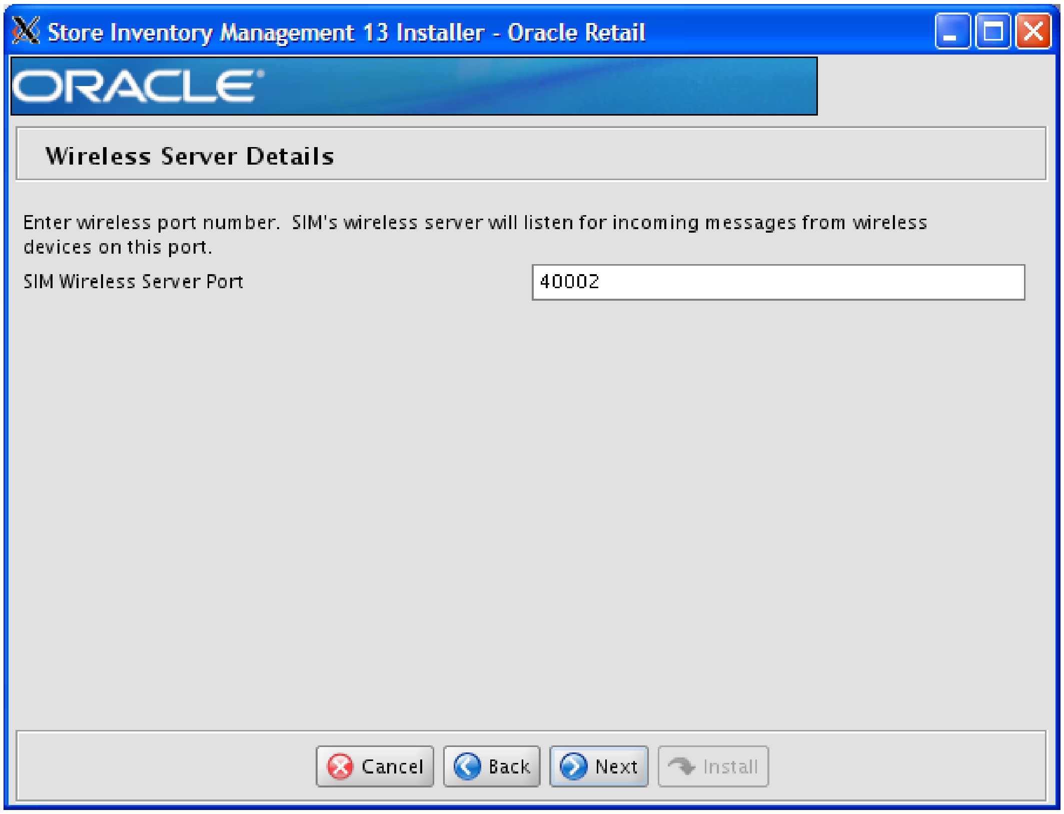
Mail Session Details

Enter mail SMTP host. SIM will send emails using this server.

SIM Mail SMTP Host: mspdev27

Field Title	SIM Mail SMTP Host
Field Description	Enter mail SMTP host. SIM will send emails using this server.
Destination	mail.cfg
Example	smtp.yourmailhost.com

Screen: Wireless Server Details



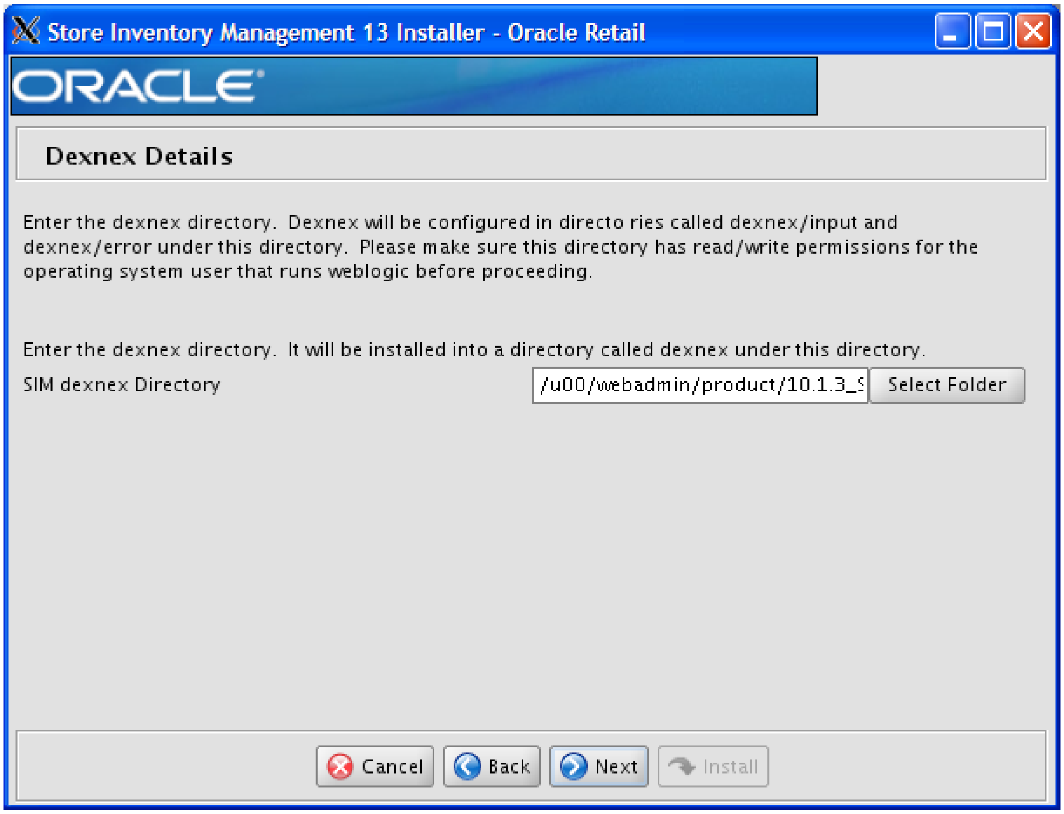
Wireless Server Details

Enter wireless port number. SIM's wireless server will listen for incoming messages from wireless devices on this port.

SIM Wireless Server Port: 40002

Field Title	SIM Wireless Server Port
Field Description	Choose an available port that the Wavelink server will use to listen for incoming messages from wireless devices.
Destination	wireless_services.cfg, wavelink-startup.sh
Example	40002

Screen: Dexnex Details



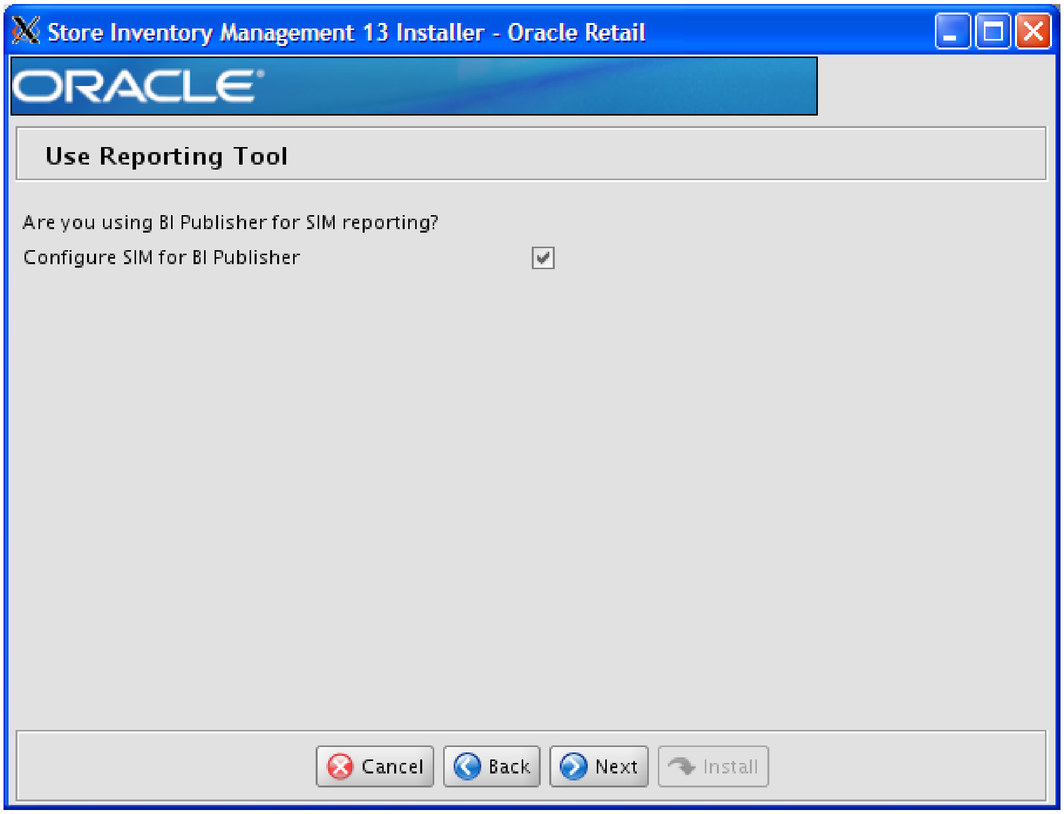
Enter the dexnex directory. Dexnex will be configured in directo ries called dexnex/input and dexnex/error under this directory. Please make sure this directory has read/write permissions for the operating system user that runs weblogic before proceeding.

Enter the dexnex directory. It will be installed into a directory called dexnex under this directory.

SIM dexnex Directory /u00/webadmin/product/10.1.3_S

Field Title	SIM dexnex directory
Field Description	The dexnex directory
Example	/u00/webadmin/product/10.1.3_9/OAS/user_projects/domains/java_domain

Screen: Use Reporting Tool



Use Reporting Tool

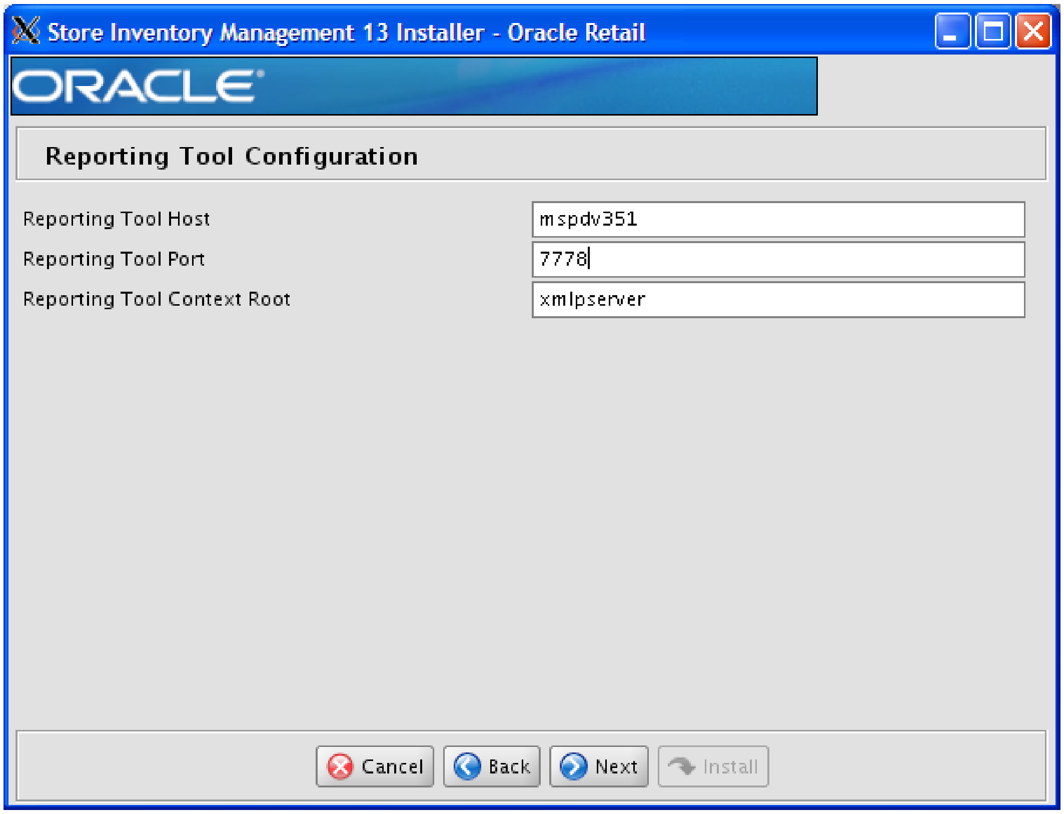
Are you using BI Publisher for SIM reporting?

Configure SIM for BI Publisher ☑

> **Note:** See the *Oracle Retail Store Inventory Management Implementation Guide* for SIM reports installation details. If SIM reports will be installed at a later time, leave the reporting configuration values as the default values. They can be configured using the Store and Reporting Tool at a later time.

Field Title	Configure SIM for BI Publisher
Field Description	Toggle field indicating whether to configure SIM for BI Publisher Reporting tool.
Destination	insert_default_st_config_val.pls
Example	True
Notes	The following configuration screens will only appear if this checkbox is marked.

Screen: Reporting Tool Configuration


Store Inventory Management 13 Installer - Oracle Retail
ORACLE
Reporting Tool Configuration

Reporting Tool Host: mspdv351

Reporting Tool Port: 7778

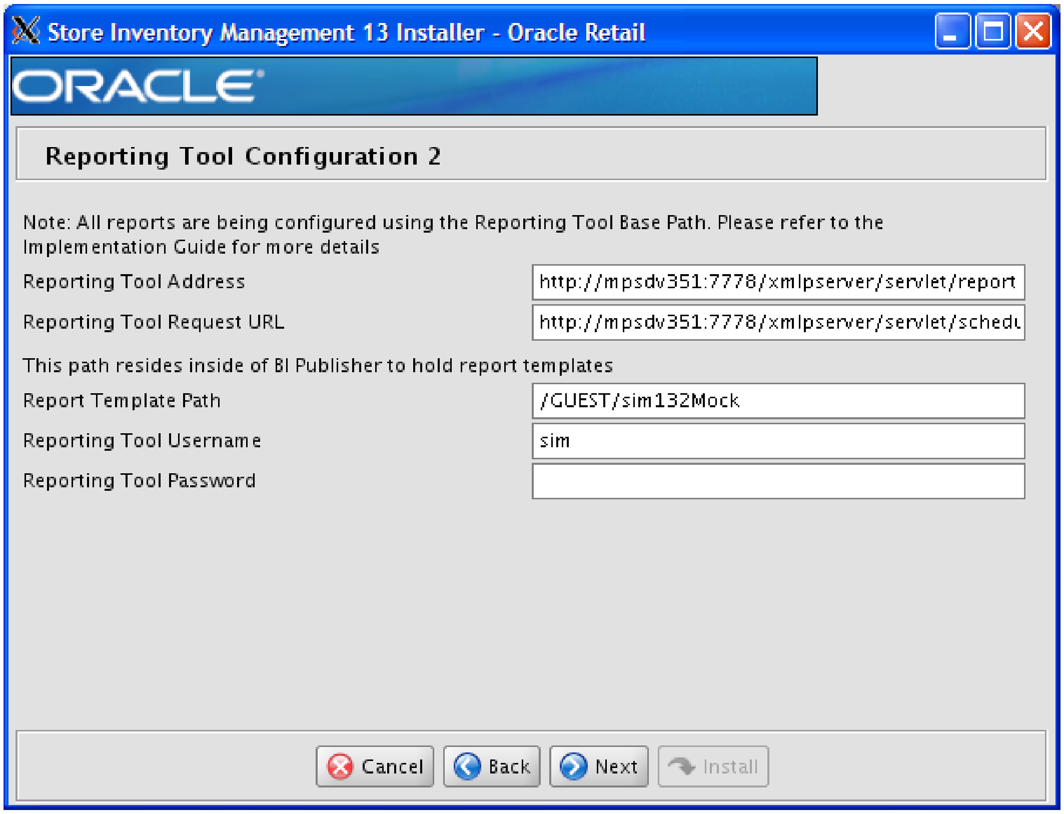
Reporting Tool Context Root: xmlpserver

Field Title	Reporting Tool Host
Field Description	Name of host where the reporting tool is installed.
Destination	Updates the reporting tool related default values in SIM database..
Example	myhost.us.oracle.com

Field Title	Reporting Tool Port
Field Description	Port where Reporting Tool is configured.
Destination	Updates the reporting tool related default values in SIM database.
Example	7777

Field Title	Reporting Tool Context Root
Field Description	Context root where the reporting tool is installed.
Destination	Updates the reporting tool related default values in SIM database.
Example	Xmlpserver

Screen: Reporting Tool Configuration 2



Reporting Tool Configuration 2

Note: All reports are being configured using the Reporting Tool Base Path. Please refer to the Implementation Guide for more details

Reporting Tool Address: http://mpsdv351:7778/xmlpserver/servlet/report

Reporting Tool Request URL: http://mpsdv351:7778/xmlpserver/servlet/schedu

This path resides inside of BI Publisher to hold report templates

Report Template Path: /GUEST/sim132Mock

Reporting Tool Username: sim

Reporting Tool Password:

Field Title	Reporting Tool Address
Field Description	Confirmation field of address configured from values provided on previous screen.
Destination	Updates the reporting tool related default values in SIM database.
Example	http://myhost.us.oracle.com:7777/xmlpserver/servlet/report

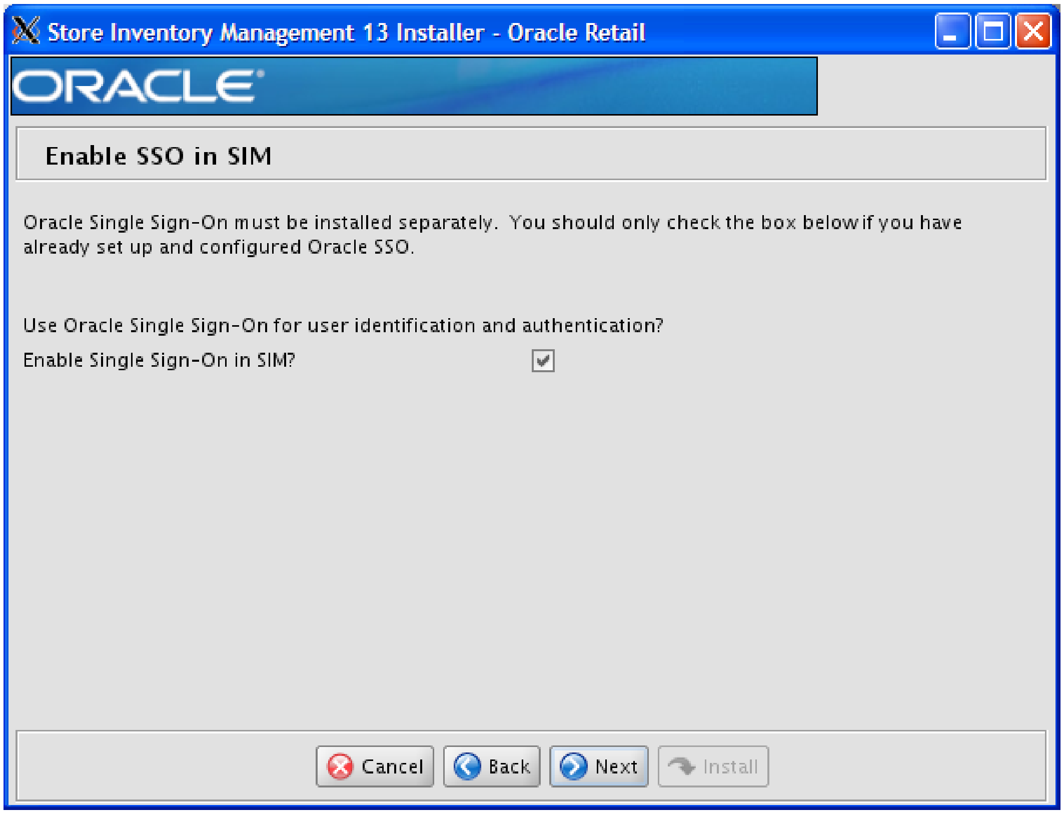
Field Title	Reporting Tool Request URL
Field Description	Confirmation field of address configured from values provided on previous screen.
Destination	Updates the reporting tool related default values in SIM database.
Example	http://myhost.us.oracle.com:7777/xmlpserver/servlet/scheduler

Field Title	Reporting Template Path
Field Description	The folder where SIM report templates have been uploaded on the BI Publisher server. For example, if they have been uploaded in the Guest folder, it is /Guest.
Destination	Updates the reporting tool related default values in SIM database.
Example	/Base/SIM/13.2

Field Title	Reporting Tool Username
Field Description	<BIP_REPORTS_USER> or <OSSO_USER>
Destination	Updates the reporting tool related default values in SIM database.
Example	my username

Field Title	Reporting Tool Password
Field Description	<BIP_REPORTS_USER_PASSWORD> or <OSSO_PASSWORD>
Destination	Updates the reporting tool related default values in SIM database.

Screen: Enable SSO in SIM



Enable SSO in SIM

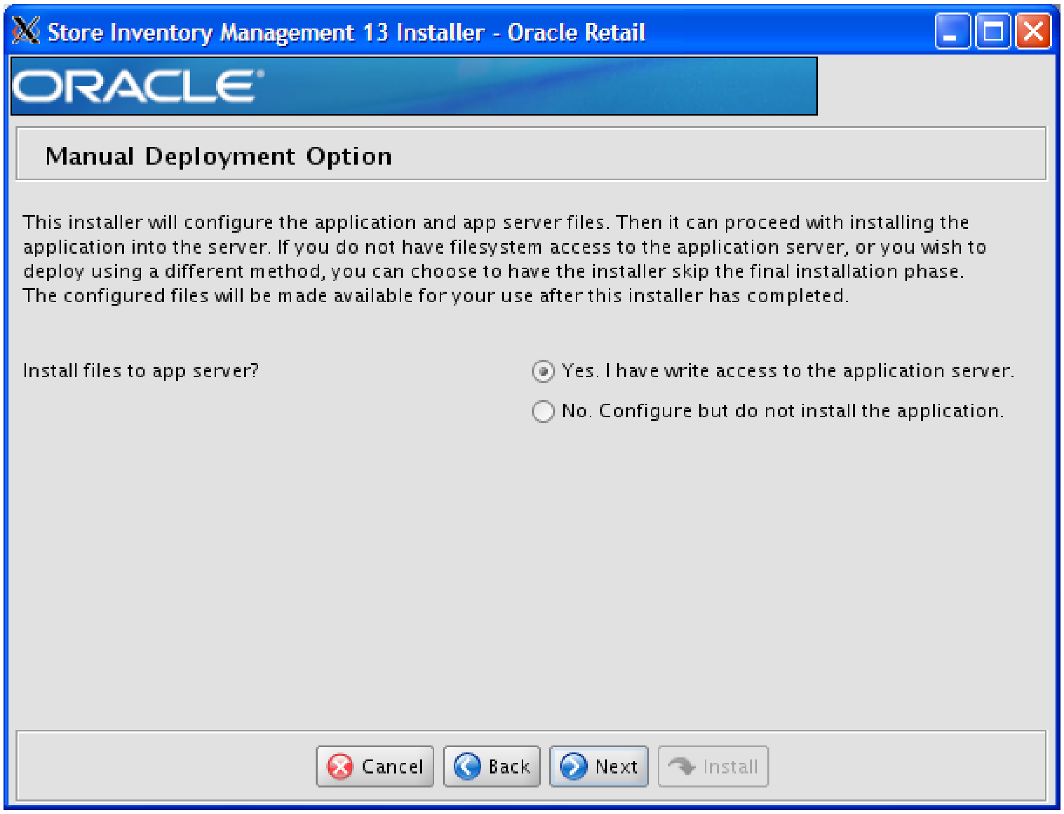
Oracle Single Sign-On must be installed separately. You should only check the box below if you have already set up and configured Oracle SSO.

Use Oracle Single Sign-On for user identification and authentication?

Enable Single Sign-On in SIM? ☑

Field Title	Enable Single Sign-On in SIM?
Field Description	Configures SIM to enable/disable SSO
Destination	JnlpLaunch.properties

Screen: Manual Deployment Options



Manual Deployment Option

This installer will configure the application and app server files. Then it can proceed with installing the application into the server. If you do not have filesystem access to the application server, or you wish to deploy using a different method, you can choose to have the installer skip the final installation phase. The configured files will be made available for your use after this installer has completed.

Install files to app server?

● Yes. I have write access to the application server.

○ No. Configure but do not install the application.

Field Title	Install files to app server?
Field Description	If you are running the installer as a user without permissions to write to the file system under the ORACLE_HOME, select **No** so the installer performs all the configuration within the staging directory but does not install any files into the ORACLE_HOME.
Notes	If you select **No**, you must perform manual steps to complete the installation.

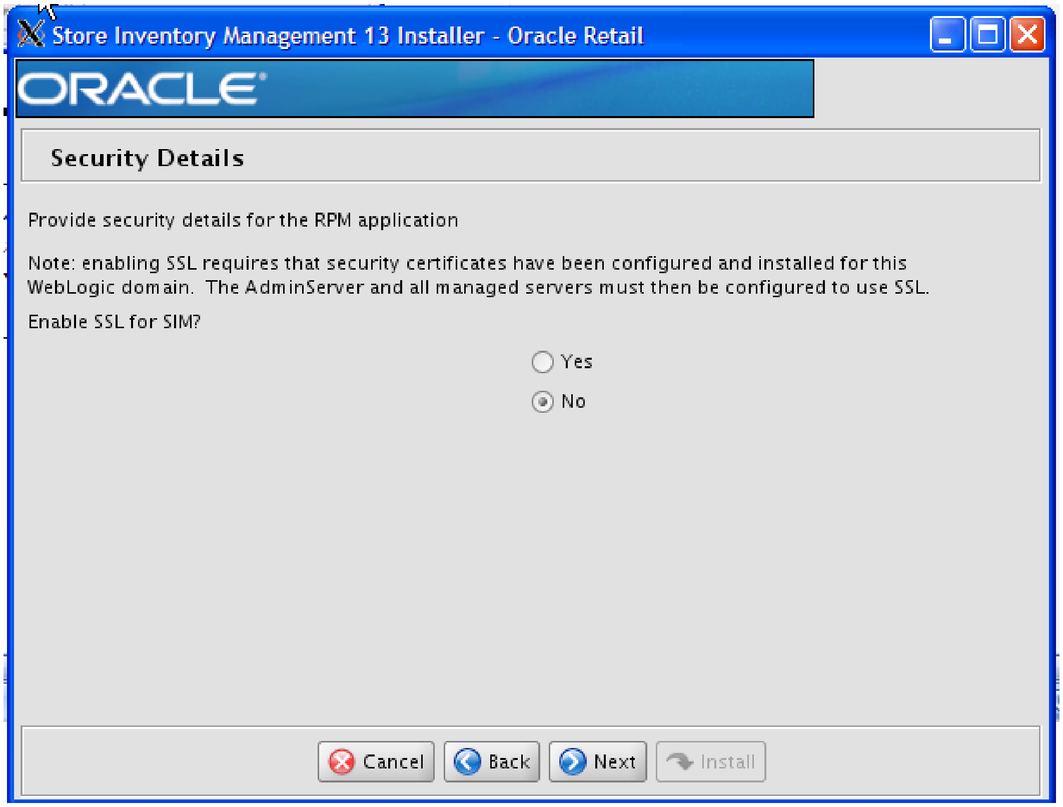
Note: Following the SIM installation, some of the configuration files need to be updated. See the Configuration Files section of the *Oracle Retail Store Inventory Management Operations Guide* for configuration file locations.

B

Appendix: SIM Application WebLogic Server Installer Screens

You need the following details about your environment for the installer to successfully deploy the SIM application. Depending on the options you select, you may not see some screens.

Screen: Security Details



Security Details

Provide security details for the RPM application

Note: enabling SSL requires that security certificates have been configured and installed for this WebLogic domain. The AdminServer and all managed servers must then be configured to use SSL.

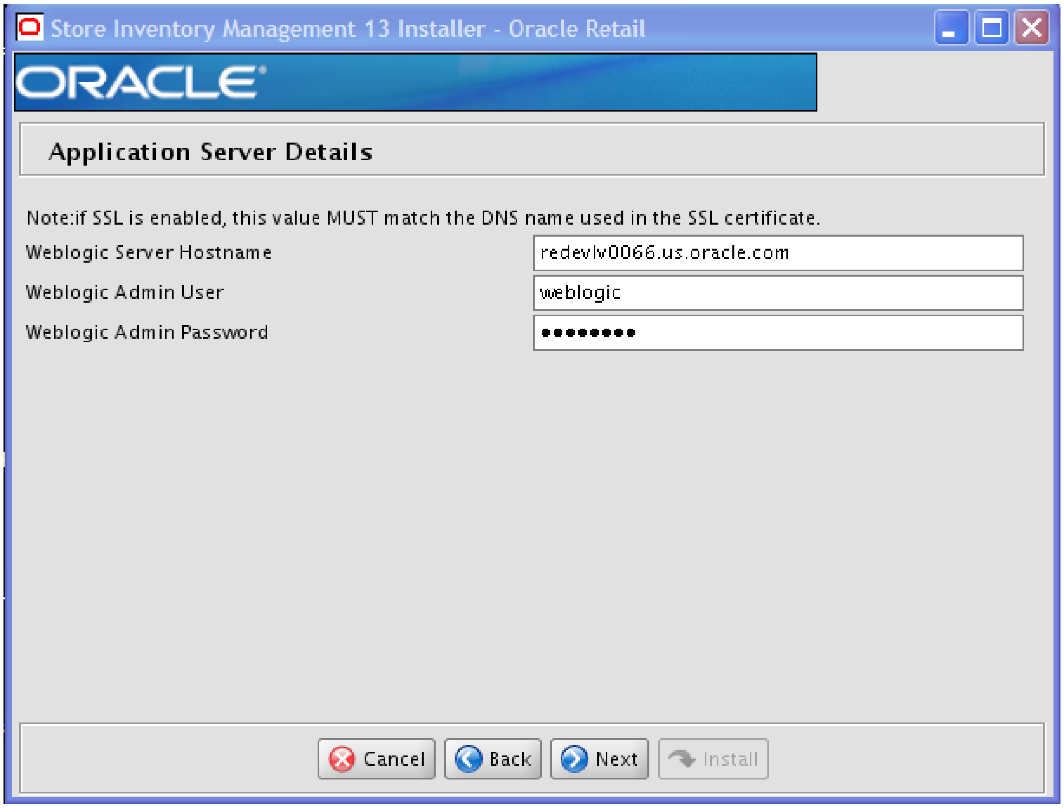
Enable SSL for SIM?

○ Yes

● No

Field Title	Enable SSL for SIM?
Field Description	Selecting **Yes** will deploy SIM using SSL, and will configure SIM to use SSL. In this case, SSL must be configured and enabled for the admin server and SIM managed server or cluster. Selecting **No** will deploy and configure SIM without SSL.

Screen: Application Server Details



Application Server Details

Note:if SSL is enabled, this value MUST match the DNS name used in the SSL certificate.

Weblogic Server Hostname: redevlv0066.us.oracle.com

Weblogic Admin User: weblogic

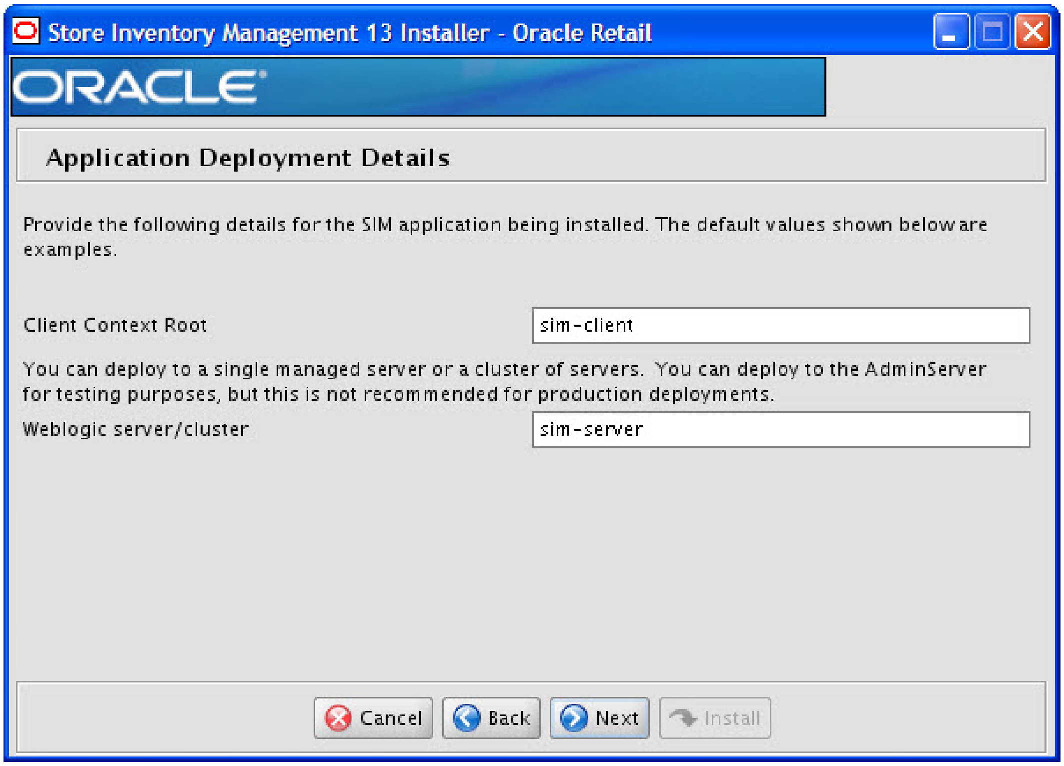
Weblogic Admin Password: ●●●●●●●●●

Field Title	WebLogic Server Hostname
Field Description	The hostname of the server where the WebLogic server is installed.
Destination	client.cfg, jnlplaunch.properties
Example	Myhost82
Notes	Used by installer scripts to deploy EAR and WAR files and to create default inputs for client codebase and JNDI provider URL.

Field Title	WebLogic Admin User
Destination	jndi.cfg, jnlplaunch.properties
Example	weblogic
Notes	Used by installer scripts to deploy EAR and WAR files.

Field Title	WebLogic Admin Password
Field Description	The password of the WebLogic Admin User.
Destination	jndi.cfg, jnlplaunch.properties
Notes	Used by installer scripts to deploy EAR and WAR files.

Screen: Application Deployment Details



Application Deployment Details

Provide the following details for the SIM application being installed. The default values shown below are examples.

Client Context Root: sim-client

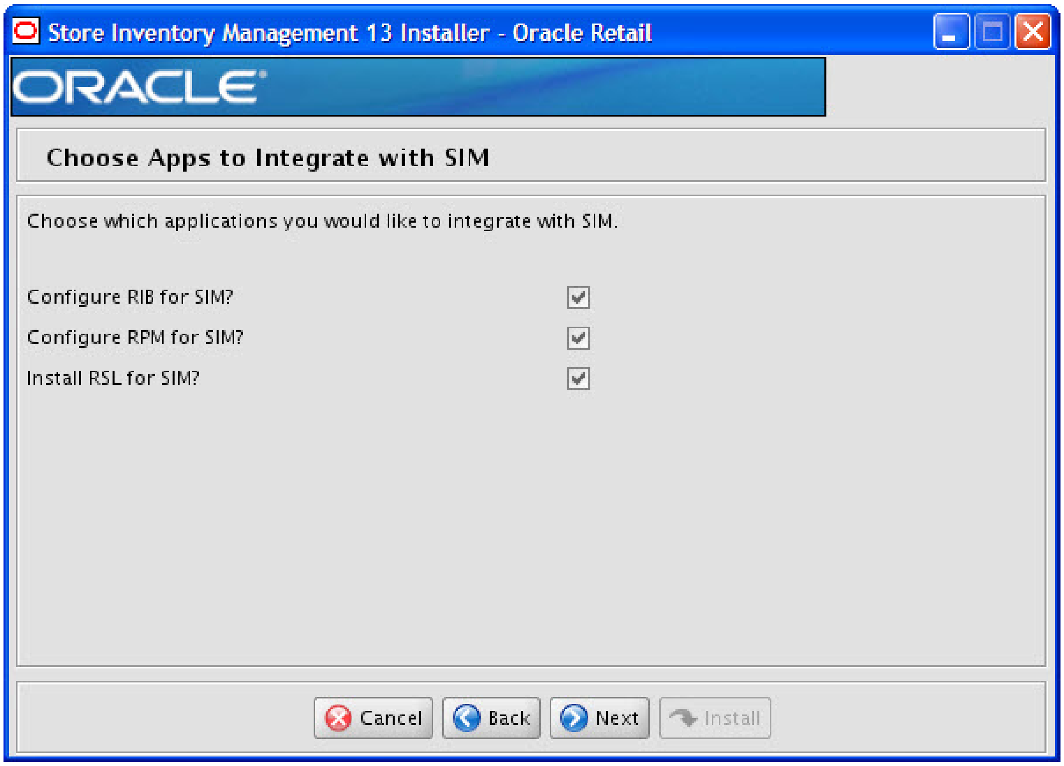
You can deploy to a single managed server or a cluster of servers. You can deploy to the AdminServer for testing purposes, but this is not recommended for production deployments.

Weblogic server/cluster: sim-server

Field Title	Client Context Root
Field Description	Context root for sim client
Example	sim-client

Field Title	WebLogic server/cluster
Field Description	This the managed server name for standalone deployment and Cluster name for deployment to clustered managed servers.
Example	sim-server

Screen: Choose Apps to Integrate with SIM



Choose Apps to Integrate with SIM

Choose which applications you would like to integrate with SIM.

Configure RIB for SIM? ☑

Configure RPM for SIM? ☑

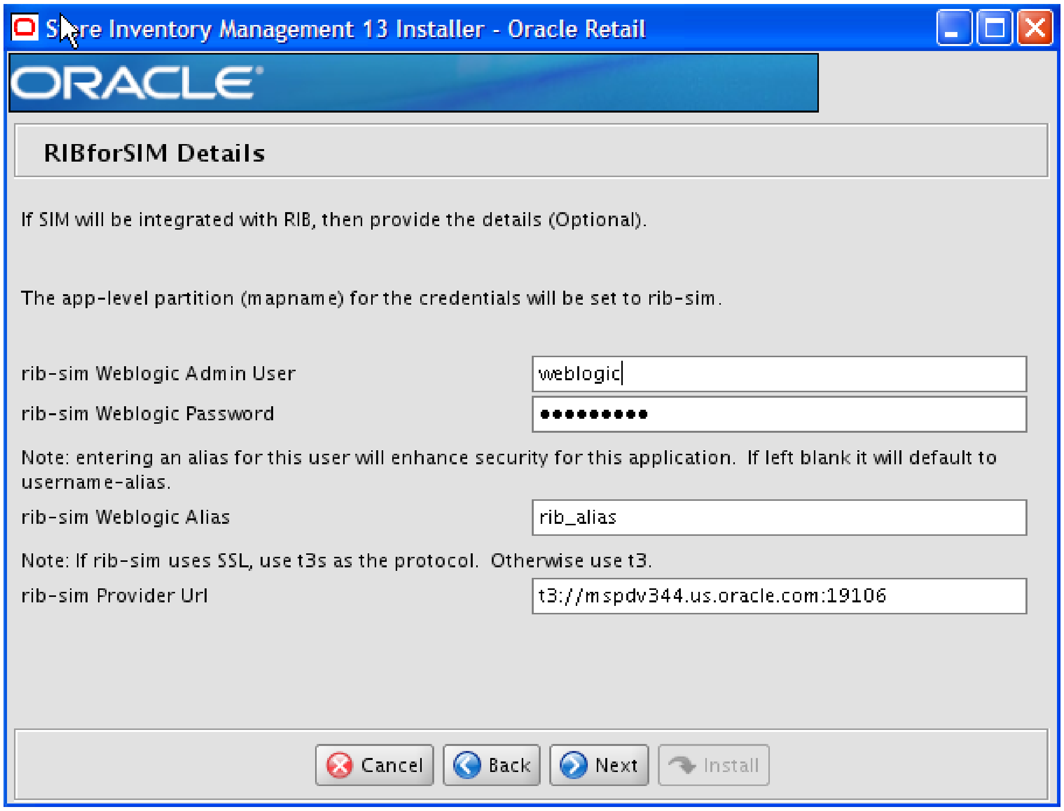
Install RSL for SIM? ☑

Field Title	Configure RIB for SIM?
Field Description	Select this option if you will be using RIB with SIM.

Field Title	Configure RPM for SIM?
Field Description	Select this option if you will be using RPM with SIM.

Field Title	Install RSL for SIM?
Field Description	Select this option if you will be using RSL with SIM.

Screen: RIBforSIM Details



RIBforSIM Details

If SIM will be integrated with RIB, then provide the details (Optional).

The app-level partition (mapname) for the credentials will be set to rib-sim.

rib-sim Weblogic Admin User: weblogic

rib-sim Weblogic Password: ●●●●●●●●●●

Note: entering an alias for this user will enhance security for this application. If left blank it will default to username-alias.

rib-sim Weblogic Alias: rib_alias

Note: If rib-sim uses SSL, use t3s as the protocol. Otherwise use t3.

rib-sim Provider Url: t3://mspdv344.us.oracle.com:19106

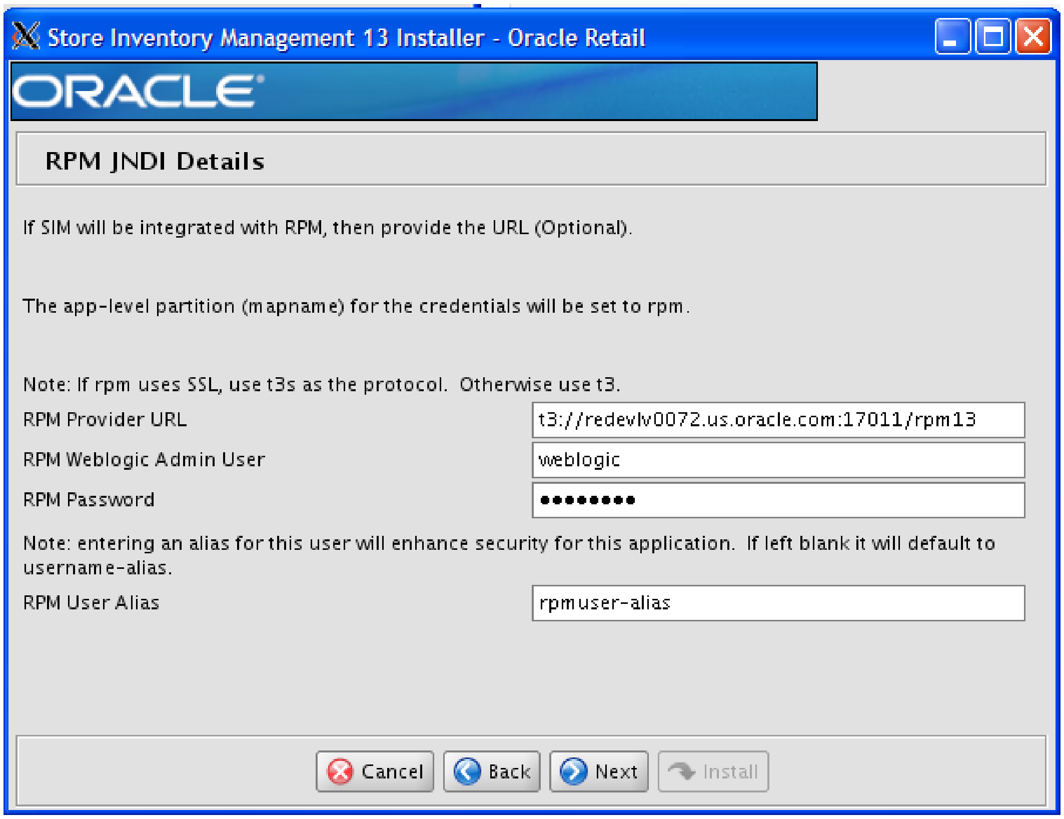
Field Title	rib-sim WebLogic User
Field Description	This is the user name with access to Admin console.
Destination	remote_service_locator_info_ribclient.xml
Example	weblogic

Field Title	rib-sim WebLogic Password
Field Description	Password for the RIBforRPM 13 user.

Field Title	rib-sim WebLogic Alias
Field Description	This is the alias for the user name.
Example	weblogic-alias

Field Title	rib-sim Provider URL
Field Description	This the provider URL of the rib-<app>
Examples	t3://myhost:7111/rib-sim

Screen: RPM JNDI Details



RPM JNDI Details

If SIM will be integrated with RPM, then provide the URL (Optional).

The app-level partition (mapname) for the credentials will be set to rpm.

Note: If rpm uses SSL, use t3s as the protocol. Otherwise use t3.

RPM Provider URL	t3://redevlv0072.us.oracle.com:17011/rpm13
RPM Weblogic Admin User	weblogic
RPM Password	●●●●●●●●●

Note: entering an alias for this user will enhance security for this application. If left blank it will default to username-alias.

RPM User Alias	rpmuser-alias

Field Title	RPM Provider URL
Field Description	This is the provider URl for <app>
Destination	jndi_providers.xml
Example	t3://redevlv0072.us.oracle.com:17011/rpm13

Field Title	RPM Weblogic Admin User
Field Description	This is the user which has access to RPM Weblogic server.
Example	weblogic

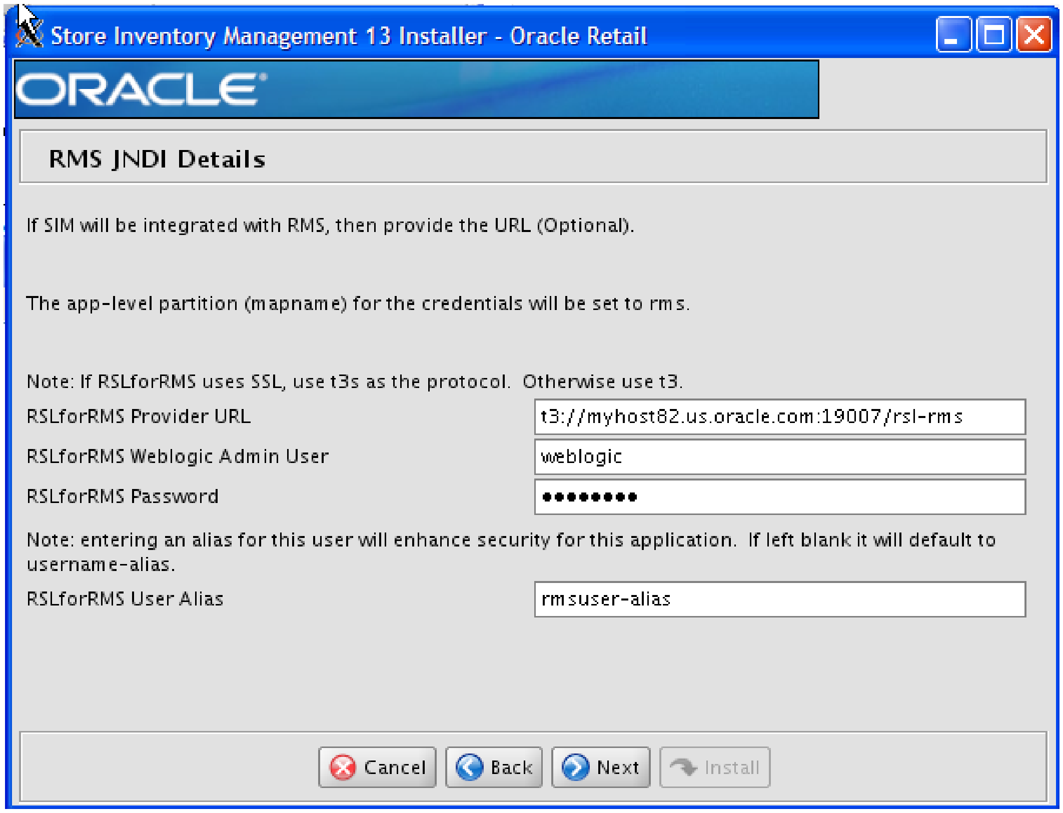
Field Title	RPM Password
Field Description	This is the password of the user provided for RPM Weblogic Admin user in the above.

Field Title	RPM User Alias
Field Description	This is the alias for <RPM Weblogic Admin User>
Examples	rpmuser-alias Make sure to give the same name as provided for <RPM Weblogic Admin User>

Note: In SIM Database, verify that rk_config table has a valid RPM application login user name for config_key=RPM_APP_USER_NAME, RPM_APP_USER_FIRST_NAME and RPM_APP_USER_LAST_NAME.
This is required for SIM-RPM integration to work properly.

For example, retail.user (validate this user by logging into the RPM application).

Screen: RMS JNDI Details



RMS JNDI Details

If SIM will be integrated with RMS, then provide the URL (Optional).

The app-level partition (mapname) for the credentials will be set to rms.

Note: If RSLforRMS uses SSL, use t3s as the protocol. Otherwise use t3.

RSLforRMS Provider URL: t3://myhost82.us.oracle.com:19007/rsl-rms

RSLforRMS Weblogic Admin User: weblogic

RSLforRMS Password: ●●●●●●●●●

Note: entering an alias for this user will enhance security for this application. If left blank it will default to username-alias.

RSLforRMS User Alias: rmsuser-alias

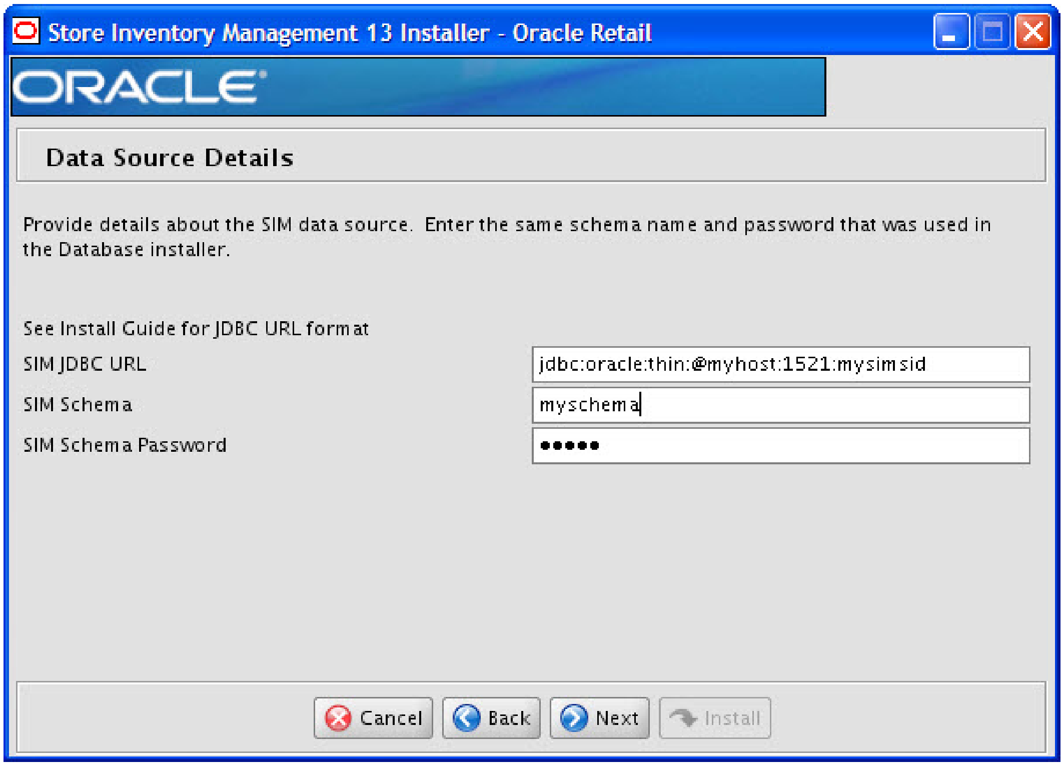
Field Title	RSLforRMS Provider URL
Field Description	This is the provider URL for the RSLforRMS.
Destination	jndi_providers.xml
Example	t3://myhost82.us.oracle.com:17011/rsl-rms

Field Title	RSLforRMS Weblogic Admin User
Field Description	This is the user name for log in to RSLforRSM Weblogic server.
Example	weblogic

Field Title	RSLforRMS Password
Field Description	This is the password of the user provided for RSLforRMS Weblogic admin user in the above example.

Field Title	RSLforRMS User Alias
Field Description	This is the alias for RSLforRMS Weblogic admin user.
Examples	rmsuser-alias Make sure to give the same name as provided for <RSLforRMS Weblogic Admin User>

Screen: Data Source Details



Data Source Details

Provide details about the SIM data source. Enter the same schema name and password that was used in the Database installer.

See Install Guide for JDBC URL format

SIM JDBC URL: jdbc:oracle:thin:@myhost:1521:mysimsid

SIM Schema: myschema

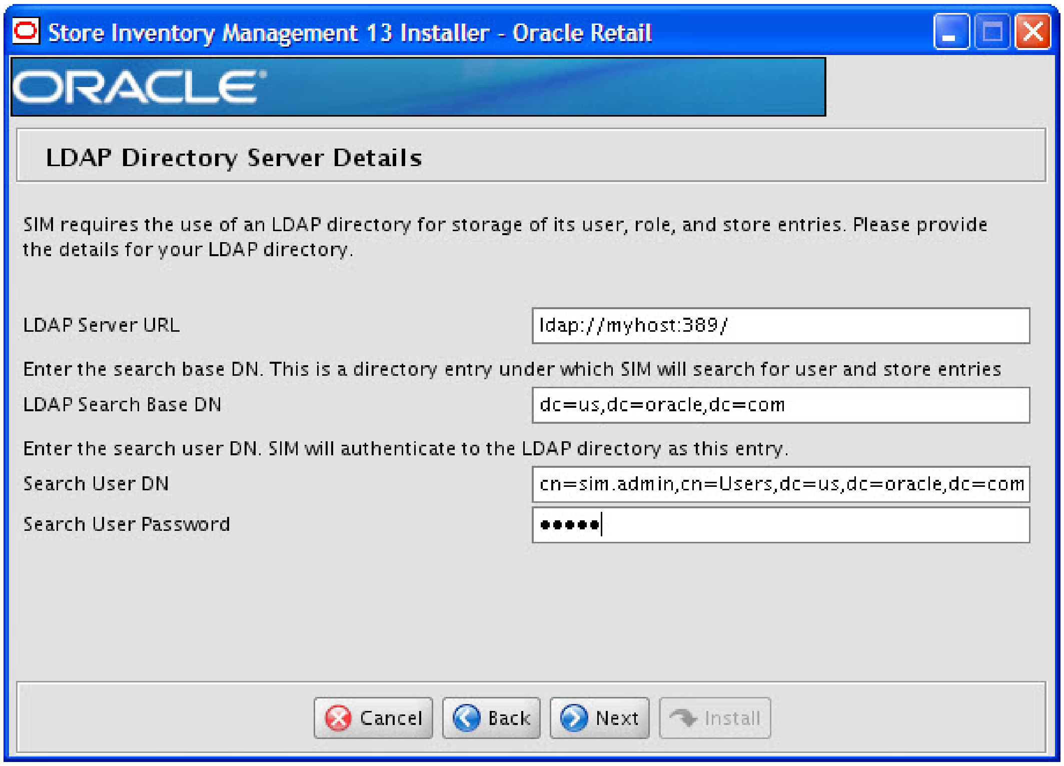
SIM Schema Password: ●●●●●

Field Title	SIM JDBC URL
Field Description	URL used by the SIM application to access the SIM database schema.
Destination	WebLogic admin server
Example	jdbc:oracle:thin:@myhost:1521:mysimsid jdbc:oracle:thin:@(DESCRIPTION =(ADDRESS_LIST =(ADDRESS = (PROTOCOL = TCP)(HOST = myhost1)(PORT = 1521))(ADDRESS = (PROTOCOL = TCP)(HOST = myhost2)(PORT = 1521))(LOAD_BALANCE = yes))(CONNECT_DATA =(SERVICE_NAME = mysimsid)))

Field Title	SIM Schema
Field Description	The schema name
Destination	WebLogic admin server
Notes	The schema name should match the name you provided when you ran the database schema installer.

Field Title	SIM Schema Password
Field Description	The password for the SIM schema
Destination	WebLogic admin server

Screen: LDAP Directory Server Details



LDAP Directory Server Details

SIM requires the use of an LDAP directory for storage of its user, role, and store entries. Please provide the details for your LDAP directory.

LDAP Server URL: ldap://myhost:389/

Enter the search base DN. This is a directory entry under which SIM will search for user and store entries

LDAP Search Base DN: dc=us,dc=oracle,dc=com

Enter the search user DN. SIM will authenticate to the LDAP directory as this entry.

Search User DN: cn=sim.admin,cn=Users,dc=us,dc=oracle,dc=com

Search User Password: •••••

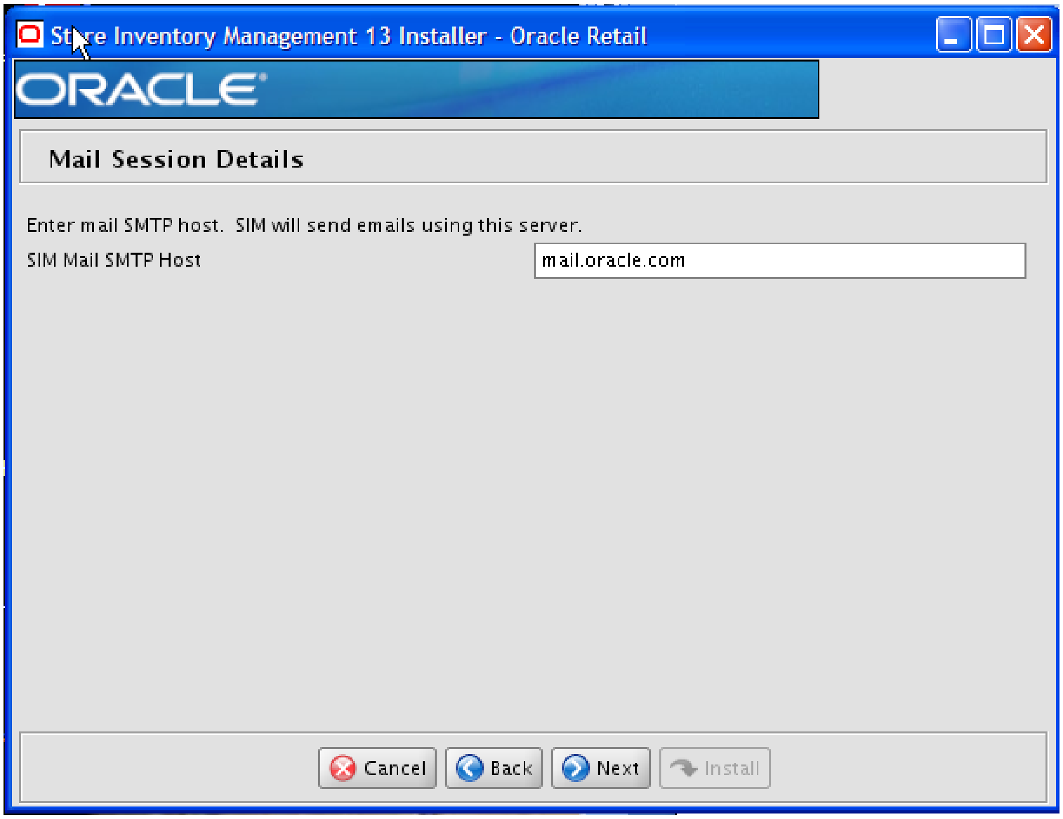
Field Title	LDAP server URL
Field Description	URL for your LDAP directory server.
Destination	ldap.cfg
Example	ldap://myhost:389/

Field Title	LDAP Search Base DN
Field Description	The directory entry under which SIM will search for user and store entries.
Destination	ldap.cfg
Example	dc=us,dc=oracle,dc=com

Field Title	Search User DN
Field Description	Distinguished name of the user that RPM uses to authenticate to the LDAP directory.
Destination	ldap.cfg
Example	cn=admin,dc=mycompany,dc=com

Field Title	Search User Password
Field Description	Password for the search user DN.
Destination	ldap.cfg

Screen: Mail Session Details



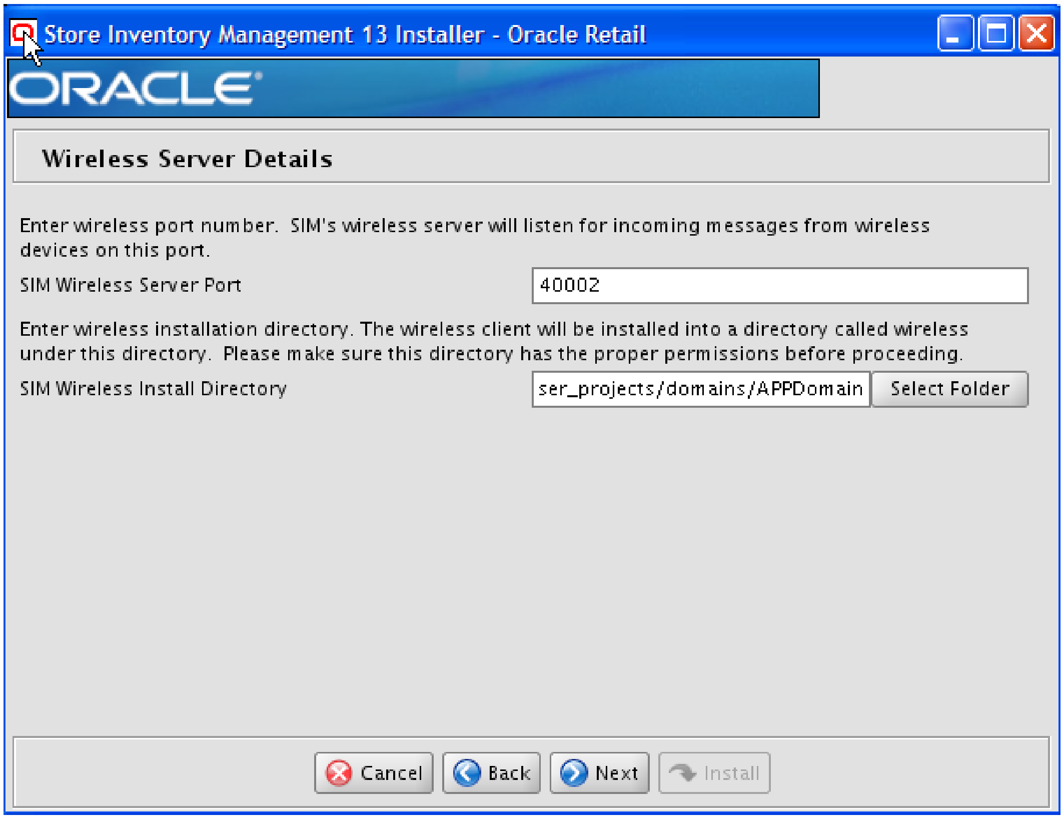
Mail Session Details

Enter mail SMTP host. SIM will send emails using this server.

SIM Mail SMTP Host: mail.oracle.com

Field Title	SIM Mail SMTP Host
Field Description	The SMTP server that will be used to send notification emails from SIM.
Destination	WebLogic admin server
Example	mail.oracle.com

Screen: Wireless Server Details



Wireless Server Details

Enter wireless port number. SIM's wireless server will listen for incoming messages from wireless devices on this port.

SIM Wireless Server Port: 40002

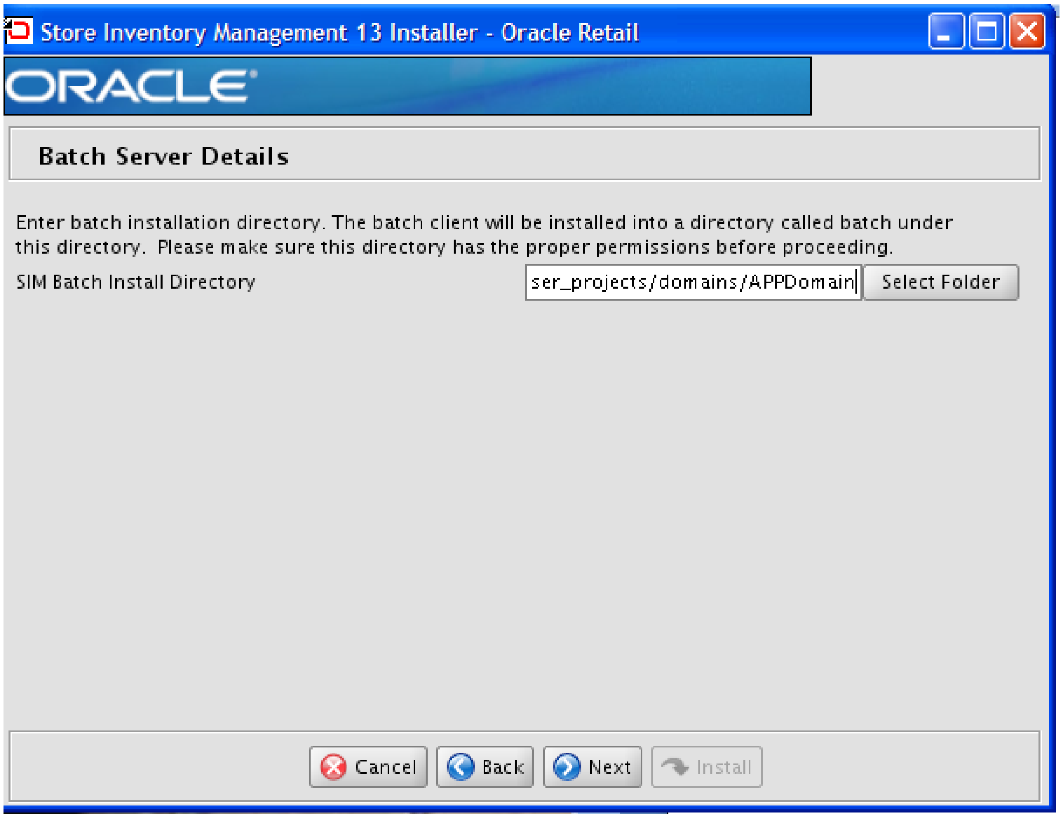
Enter wireless installation directory. The wireless client will be installed into a directory called wireless under this directory. Please make sure this directory has the proper permissions before proceeding.

SIM Wireless Install Directory: ser_projects/domains/APPDomain

Field Title	SIM Wireless Server Port
Field Description	Choose an available port that the Wavelink server will use to listen for incoming messages from wireless devices
Destination	wireless.cfg, wavelink-startup.sh
Example	40002

Field Title	SIM Wireless Install Directory
Field Description	The wireless installation directory.
Example	/u00/webadmin/product/10.3.3/WLS/user_projects/domains/APPDomain

Screen: Batch Server Details



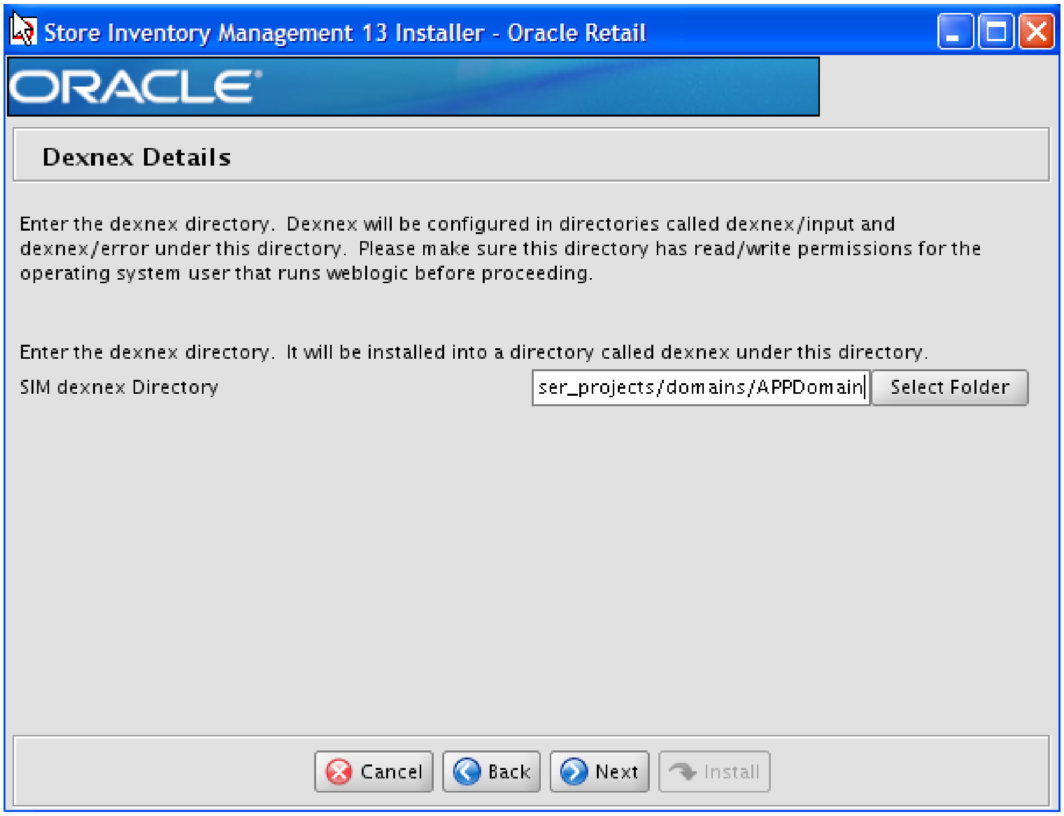
Batch Server Details

Enter batch installation directory. The batch client will be installed into a directory called batch under this directory. Please make sure this directory has the proper permissions before proceeding.

SIM Batch Install Directory ser_projects/domains/APPDomain

Field Title	SIM Batch Install Directory
Field Description	The batch installation directory.
Example	/u00/webadmin/product/10.3.3/WLS/user_projects/domains/APPDomain

Screen: Dexnex Details



Dexnex Details

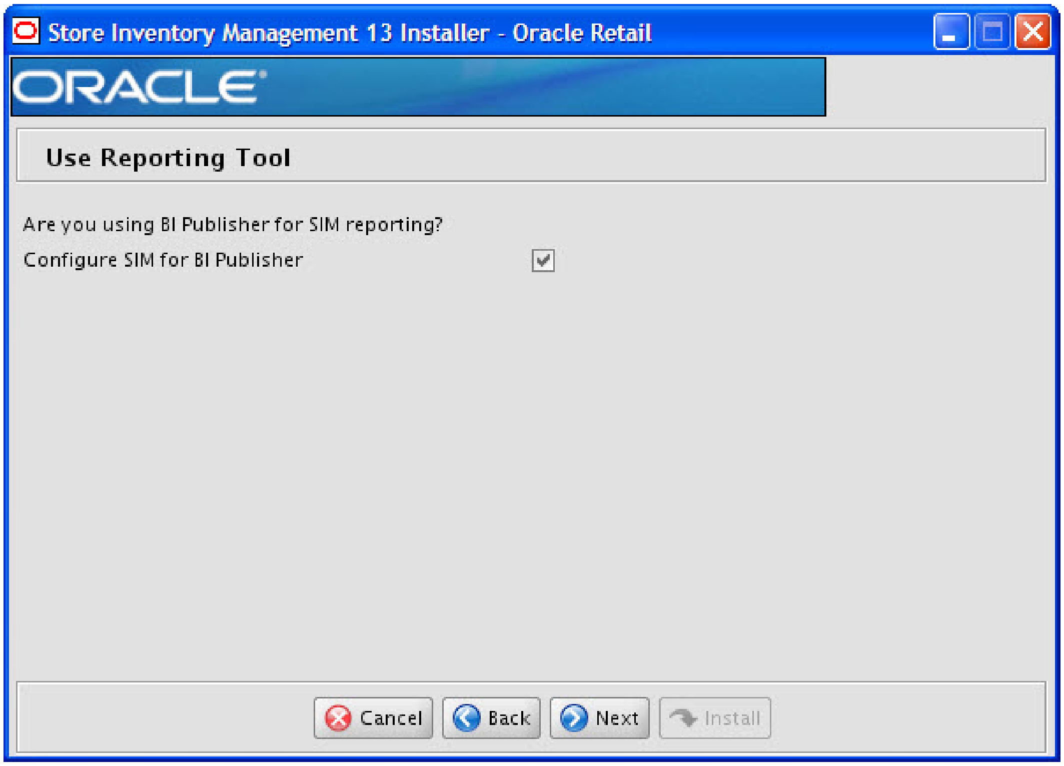
Enter the dexnex directory. Dexnex will be configured in directories called dexnex/input and dexnex/error under this directory. Please make sure this directory has read/write permissions for the operating system user that runs weblogic before proceeding.

Enter the dexnex directory. It will be installed into a directory called dexnex under this directory.

SIM dexnex Directory: ser_projects/domains/APPDomain

Field Title	SIM dexnex directory
Field Description	The dexnex directory.
Example	/u00/webadmin/product/10.3.3/WLS/user_projects/domains/APPDomain

Screen: Use Reporting Tool



Use Reporting Tool

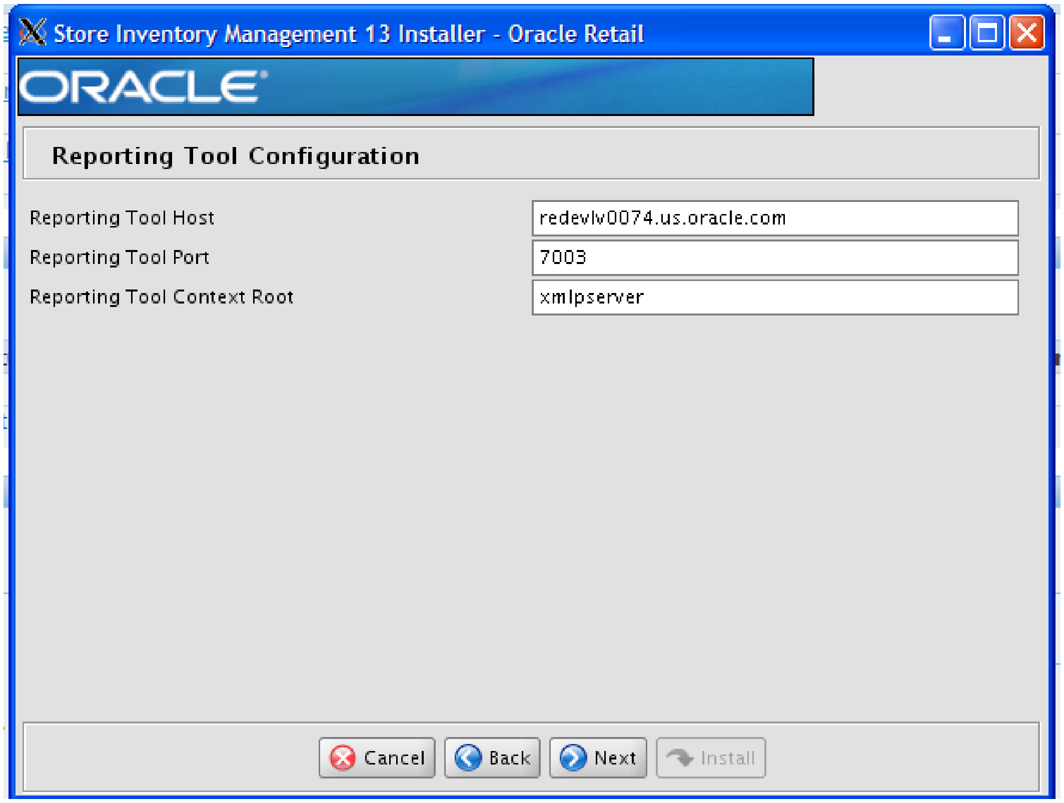
Are you using BI Publisher for SIM reporting?

Configure SIM for BI Publisher ☑

Note: See the *Oracle Retail Store Inventory Management Implementation Guide* for SIM reports installation details. If SIM reports will be installed at a later time, leave the reporting configuration values as the default values. These can be configured using the Store and Reporting Tool at a later time.

Field Title	Configure SIM for BI Publisher
Field Description	Toggle field indicating whether or not to configure SIM for BI Publisher reporting tool
Destination	insert_default_st_config_val.pls
Example	true
Notes	The following configuration screens will only appear if this checkbox is marked.

Screen: Reporting Tool Configuration



Reporting Tool Configuration

Reporting Tool Host: redevlv0074.us.oracle.com

Reporting Tool Port: 7003

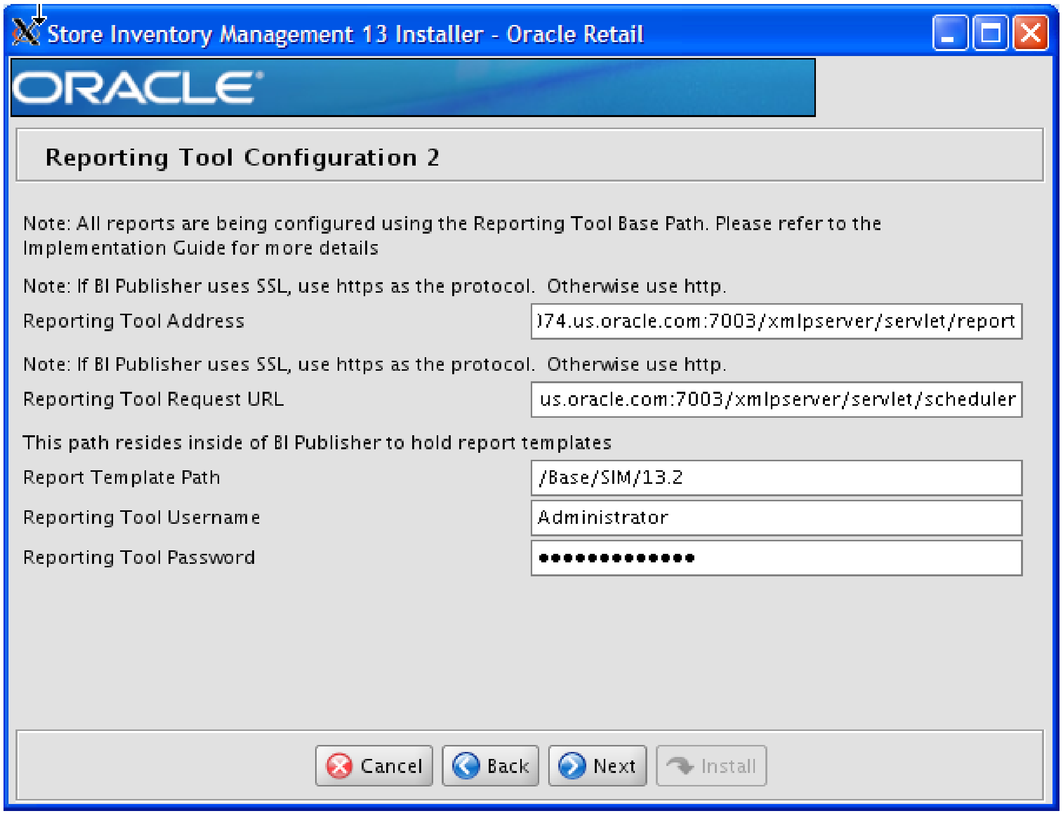
Reporting Tool Context Root: xmlpserver

Field Title	Reporting Tool Host
Field Description	Host name where Reporting Tool is installed.
Destination	Updates the reporting tool related default values in SIM database.
Example	myhost.us.oracle.com

Field Title	Reporting Tool Port
Field Description	Port where Reporting Tool is configured.
Destination	Updates the reporting tool related default values in SIM database.
Example	7003

Field Title	Reporting Tool Context Root
Field Description	Context root where Reporting Tool is installed.
Destination	Updates the reporting tool related default values in SIM database.
Example	xmlpserver

Screen: Reporting Tool Configuration 2



Reporting Tool Configuration 2

Note: All reports are being configured using the Reporting Tool Base Path. Please refer to the Implementation Guide for more details

Note: If BI Publisher uses SSL, use https as the protocol. Otherwise use http.

Reporting Tool Address:)74.us.oracle.com:7003/xmlpserver/servlet/report

Note: If BI Publisher uses SSL, use https as the protocol. Otherwise use http.

Reporting Tool Request URL: us.oracle.com:7003/xmlpserver/servlet/scheduler

This path resides inside of BI Publisher to hold report templates

Report Template Path: /Base/SIM/13.2

Reporting Tool Username: Administrator

Reporting Tool Password: ••••••••••••••

Field Title	Reporting Tool Address
Field Description	Confirmation field of address configured from values provided on previous screen.
Destination	Updates the reporting tool related default values in SIM database.
Example	http://myhost.us.oracle.com: 17015/xmlpserver/servlet/report

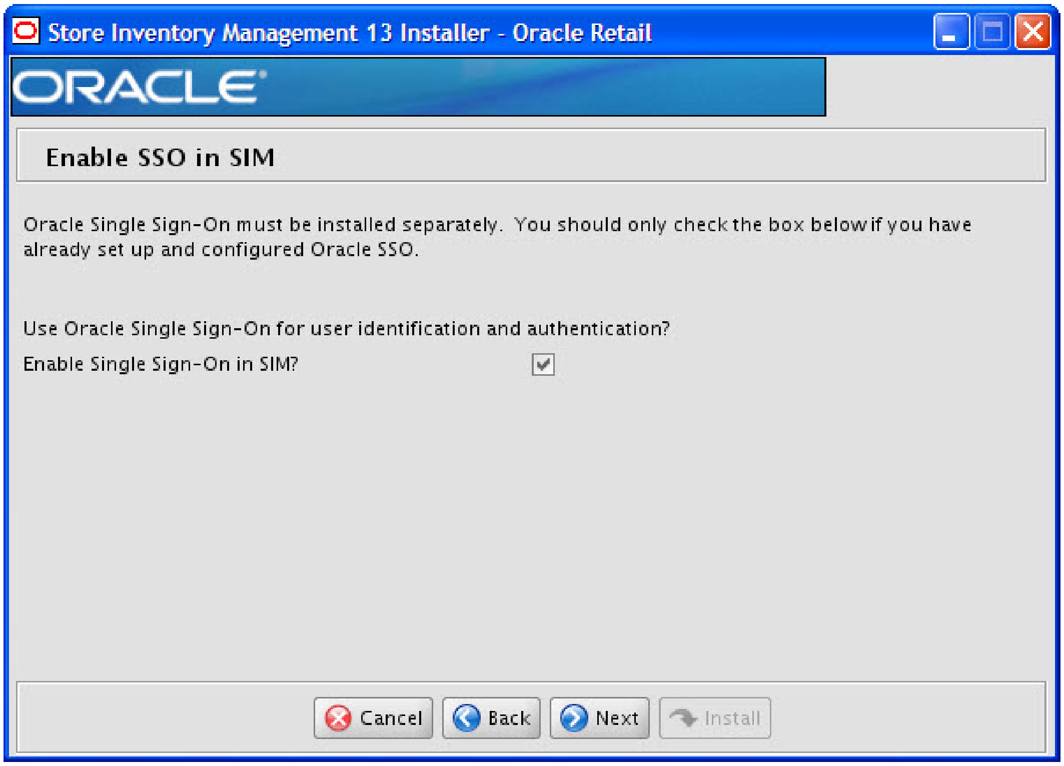
Field Title	Reporting Tool Address URL
Field Description	Confirmation field of address configured from values provided on previous screen.
Destination	Updates the reporting tool related default values in SIM database.
Example	http://myhost.us.oracle.com: 17015/xmlpserver/servlet/scheduler

Field Title	Report Template Path
Field Description	The root directory in which your SIM report templates are located.
Example	/Guest/SIM13

Field Title	Reporting Tool Username
Field Description	From the *Oracle Retail Store Inventory Management Implementation Guide:* <BIP_REPORTS_USER> or <OSSO_USER>
Destination	Updates the reporting tool related default values in SIM database.
Example	my username

Field Title	Reporting Tool Password
Field Description	From the *Oracle Retail Store Inventory Management Implementation Guide:* <BIP_REPORTS_USER_PASSWORD> or <OSSO_PASSWORD>
Destination	Updates the reporting tool related default values in SIM database.

Screen: Enable SSO in SIM



Enable SSO in SIM

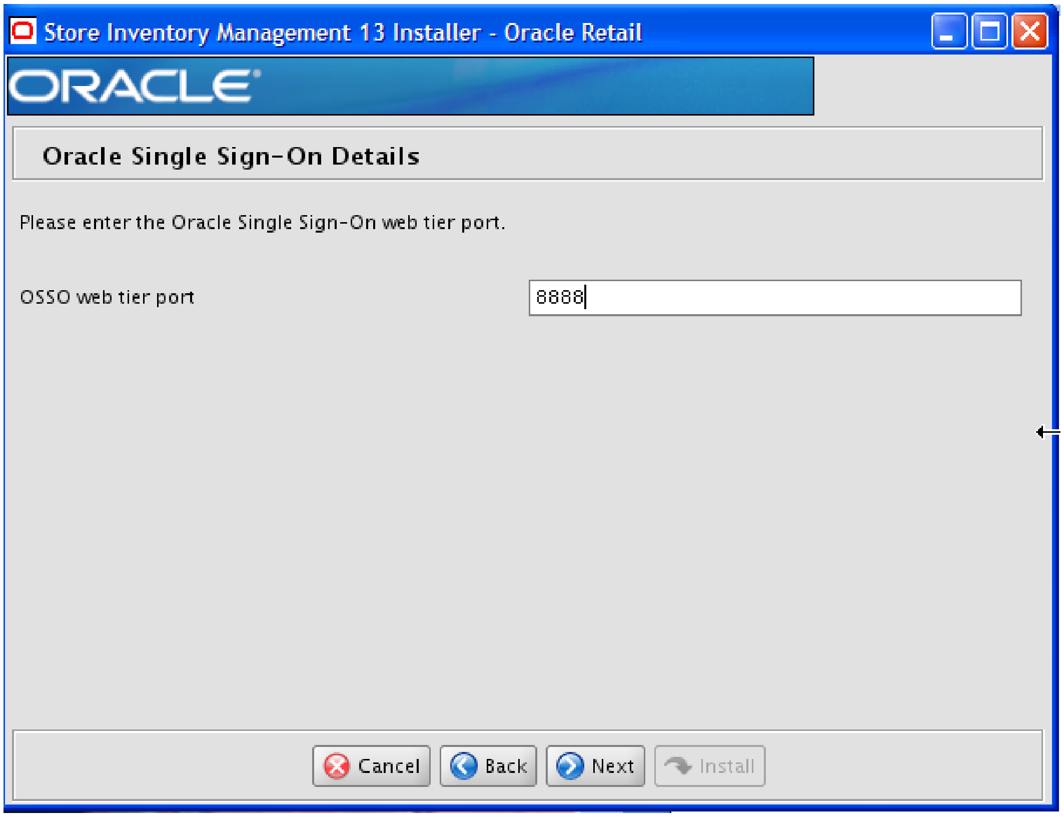
Oracle Single Sign-On must be installed separately. You should only check the box below if you have already set up and configured Oracle SSO.

Use Oracle Single Sign-On for user identification and authentication?

Enable Single Sign-On in SIM? ☑

Field Title	Use Oracle Single Sign-On for user identification and authentication?
Field Description	This version of SIM has the option to use Oracle Single Sign-On (OSSO) technology to authenticate users. If OSSO is being used in your environment, select **Yes**. If you select **No**, SIM will be configured to use its own LDAP directory settings for authentication.
Destination	JnlpLaunch.properties

SCREEN: Oracle Single Sign-On Details



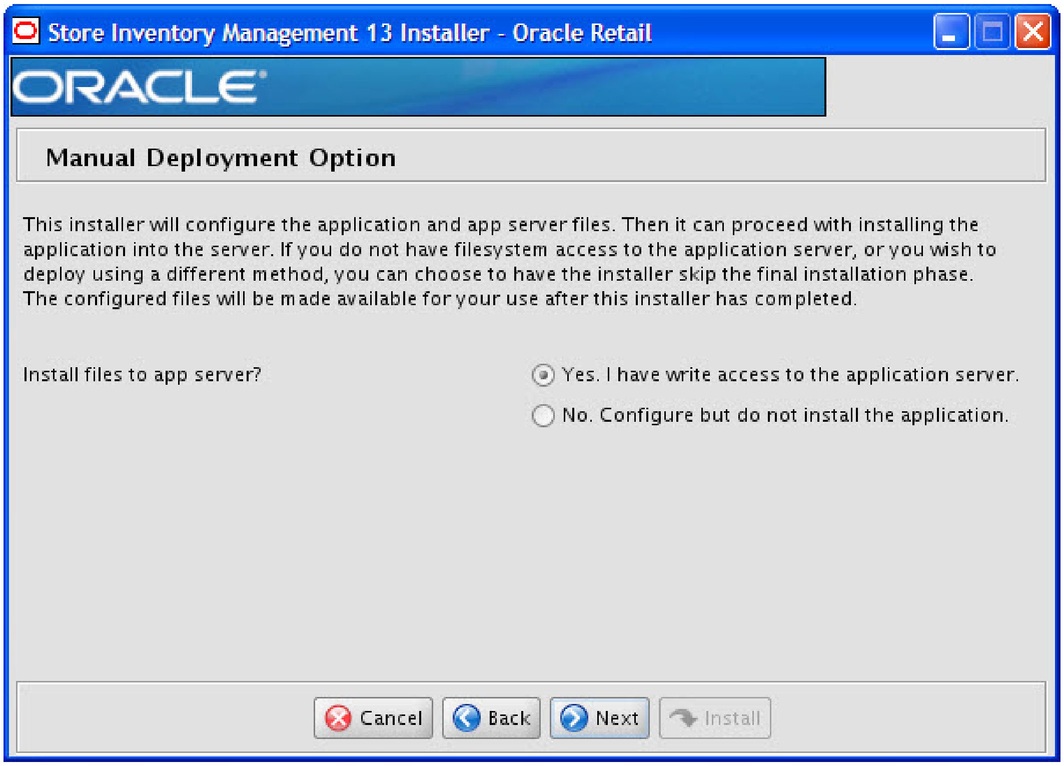
Oracle Single Sign-On Details

Please enter the Oracle Single Sign-On web tier port.

OSSO web tier port: 8888

Field Title	Oracle Single Sign-On Details
Field Description	This is the port used to access the Single Sign-On webtier.
Example	8888

Screen: Manual Deployment Option



Manual Deployment Option

This installer will configure the application and app server files. Then it can proceed with installing the application into the server. If you do not have filesystem access to the application server, or you wish to deploy using a different method, you can choose to have the installer skip the final installation phase. The configured files will be made available for your use after this installer has completed.

Install files to app server?

● Yes. I have write access to the application server.

○ No. Configure but do not install the application.

Fields on this screen:

Field Title	Install files to app server?
Field Description	If you do not have write access under ORACLE_HOME, you can still use the installer to gather your settings and configure the SIM files locally in the staging area. Later, an administrator can manually copy over the SIM files and deploy the ear file. If you select this option, instructions are printed to the console and the installer log file for the steps needed to complete the installation. **Note**: Select Yes. There is a known issue when selecting No. If you choose the option, **No. Configure but do not install the application**, in the installer screen named Manual Deployment Option, files required for manual application installation are deleted at the end of the installation

Note: Following the SIM installation, some of the configuration files need to be updated. See the Configuration Files section of the *Oracle Retail Store Inventory Management Operations Guide* for configuration file locations.

C

Appendix: Installer Silent Mode

In addition to the GUI and text interfaces of the installer, there is a silent mode that can be run. This mode is useful if you wish to run a repeat installation without retyping the settings you provided in the previous installation. It is also useful if you encounter errors in the middle of an installation and wish to continue.

The installer runs in two distinct phases. The first phase involves gathering settings from the user. At the end of the first phase, a properties file named ant.install.properties is created with the settings that were provided. Then the second phase begins, where this properties file is used to provide your settings for the installation.

To skip the first phase and reuse the ant.install.properties file from a previous run, follow these instructions:

1. Edit the ant.install.properties file and correct any invalid settings that may have caused the installer to fail in its previous run.
2. Run the installer again with the silent argument.

Example: install.sh silent

D

Appendix: Common Installation Errors

This section provides some common errors encountered during installation.

EJB Deployment Errors during Installation to WebLogic

Symptom

On servers that are encountering high memory usage, deployment of sim-server.ear will occasionally fail due to WebLogic's inability to start the EJB polling timer service.

```
     [java] .....Failed to deploy the application with status failed
     [java] Current Status of your Deployment:
     [java] Deployment command type: deploy
     [java] Deployment State       : failed
     [java] Deployment Message     : weblogic.application.ModuleException:
Exception activating module: EJBModule(
sim-ejb3.jar)
     [java]
     [java]
     [java] weblogic.management.scripting.ScriptException: Error occured while
performing deploy : Deployment Fail
ed.
     [java] Unable to deploy EJB: PollingCoordinatorThreadBean from sim-ejb3.jar:
     [java]
     [java] Error starting Timer service
```

Solution

Delete the WebLogic managed server/cluster where sim was targeted in the Admin Console, and activate the changes. Manually delete the managed server directory <DOMAIN HOME>/servers/<SIM SERVER NAME>. Bounce the WebLogic admin server. Re-create the managed server in the Admin Console, Finally, re-run the installer. If the error persists after re-installation, consider reducing the cpu, disk, and memory load on the server.

XML Processing Errors While configuring sim-client.ear or sim-server.ear

Symptom

The installer fails while attempting to configure sim-client.ear or sim-server.ear. When updating META-INF/application.xml, the following error occurs:

```
   [mkdir] Created dir:
/work/sources/13.3/SIM_13.2.3/CDROM/WLS/sim/application/sim13/configured-
output/tmp/client/earcontents/afterconfig/META-INF
  [xmltask] It looks like you've got a network error. The probable cause
  [xmltask] is that you're trying to resolve a DTD on the internet although
  [xmltask] you don't know it! Check your XML for DTDs external to your network
  [xmltask] and read the Ant documentation for <xmlcatalog>. XMLTask will support
  [xmltask] usage of <xmlcatalog>. See the following:
  [xmltask] http://ant.apache.org/manual/CoreTypes/xmlcatalog.html
  [xmltask] http://www.oopsconsultancy.com/software/xmltask
  [xmltask] If this isn't the problem, then please report this error to the
support
  [xmltask] mailing list. Thanks!
```

Solution

This error occurs because the server on which SIM is being installed is not able to connect to the internet (for example, java.sun.com). Do either of the following.

- Establish a connection to the internet and re-run the installer, or:
- Perform the following configuration steps:

  i. cd sim/application/sim13/sim-client

  ii. jar xf sim-client.ear META-INF/application.xml

  iii. edit META-INF/application.xml, and remove the <DTD…> tag.

  iv. jar uf sim-client.ear META-INF/application.xml

  v. perform the same steps for sim/application/sim13/sim-server/sim-server.ear.

  vi. re-run the installer.

Output Freezes during Text Mode Installation to OAS and WebLogic

Symptom

The standard output of the installer in text mode will sometimes freeze partway through the installation.

Solution

Open a new terminal to the server and tail the log file located in sim/application/logs.

Database Installer Hangs on Startup

Symptom

When the database schema installer is run, the following is written to the console and the installer hangs indefinitely:

```
Running pre-install checks
Running tnsping to get listener port
```

Solution

The installer startup script is waiting for control to return from the **tnsping** command, but tnsping is hanging. Type Control+C to cancel the installer, and investigate and solve the problem that is causing the **tnsping <sid>** command to hang. This can be caused by duplicate database listeners running.

Unreadable Buttons in the Installer

If you are unable to read the text within the installer buttons, it probably means that your JAVA_HOME is pointed to a pre-1.4.2 JDK. Set JAVA_HOME to a Java development kit of version 1.4.2 or later and run the installer again.

Message: Unable to get a deployment manager

Symptom

The application installer quits with the following error message:

```
[oracle:deploy] Unable to get a deployment manager.
[oracle:deploy]
[oracle:deploy] This is typically the result of an invalid deployer URI format
being supplied, the target server not being in a started state or incorrect
authentication details being supplied.
[oracle:deploy]
[oracle:deploy] More information is available by enabling logging -- please see
the Oracle Containers for J2EE Configuration and Administration Guide for details.
```

Solution

This error can be caused by any of the following conditions:

- OC4J instance provided is not running.
- Incorrect OC4J instance name provided
- Incorrect OC4J administrative username and/or password
- Incorrect OPMN request port provided.

Make sure that the OC4J instance is running, and then check the **ant.install.properties** file for entry mistakes. Pay close attention to the input.deployer.uri, input.oc4j.instance, input.admin.user, and input.admin.password properties. If you need to make a correction, you can run the installer again with this file as input by running silent mode (see Appendix: Installer Silent Mode in this document).

Warning: Could not create system preferences directory

Symptom

The following text appears in the installer Errors tab:

```
May 22, 2006 11:16:39 AM java.util.prefs.FileSystemPreferences$3 run
WARNING: Could not create system preferences directory. System preferences are
unusable.
May 22, 2006 11:17:09 AM java.util.prefs.FileSystemPreferences
checkLockFile0ErrorCode
WARNING: Could not lock System prefs. Unix error code -264946424.
```

Solution

This is related to Java bug 4838770. The /etc/.java/.systemPrefs directory may not have been created on your system. See http://bugs.sun.com for details.

This is an issue with your installation of Java and does not affect the Oracle Retail product installation.

Keystore Errors When Signing sim-config.jar

Symptom

keytool error: java.io.IOException: Keystore was tampered with, or password was incorrect

Solution

This message may be encountered when you use the keytool utility to create an alias for signing the sim-config.jar file. This usually happens when the alias for which you are generating a key already exists in the keystore file.

Delete or rename the ~/.keystore file and run the keytool command again. This creates a fresh keystore file.

Warning: Couldn't find X Input Context

Symptom

The following text appears in the console window during execution of the installer in GUI mode:

```
Couldn't find X Input Context
```

Solution

This message is harmless and can be ignored.

ConcurrentModificationException in Installer GUI

Symptom

In GUI mode, the errors tab shows the following error:

```
java.util.ConcurrentModificationException
            at
java.util.AbstractList$Itr.checkForComodification(AbstractList.java:448)
            at java.util.AbstractList$Itr.next(AbstractList.java:419)
… etc
```

Solution

You can ignore this error. It is related to third-party Java Swing code for rendering of the installer GUI and does not affect the retail product installation.

Error while unpacking the ear file

Symptom

```
The following text appears in the console window during execution of the
installer:

07/12/19 10:53:17 Notification ==>Error while unpacking sim13.ear
java.util.zip.ZipException: error in opening zip file
```

Solution

This is a known bug (BugID 6330834) related to Solaris and NFS in Oracle Application Server 10.1.3.4. Follow the workaround documented for this bug: in the opmn.xml file in $ORACLE_HOME/opmn/conf add the following parameter to the java-options for the instance you are installing.

-Doc4j.autoUnpackLockCount=-1

After making this change you should reload OPMN, restart the affected OC4J instance(s), and retry the retail application installation.

A Second Login Screen Appears After Single Sign-On Login

If you are using Oracle Single Sign-On, you should not need to enter a SIM user name and password once SIM is launched. If the SIM login screen pops up, it means something went wrong with the SSO login. This could be caused by any of the following problems:

- There is no SIM user in LDAP for the SSO user name you are using.
- Permissions are not set up correctly for the SSO user in SIM.
- SSO is configured wrong on the server.
- SSO timed out. (This can happen especially the first time you launch SIM. Try launching SIM again.)

Symptom

A second login screen appears after you have already logged in to Single Sign-On.

Solution

See the *Oracle Retail Store Inventory Management Implementation Guide* for more information on setting up SIM users and using LDAP and SSO with SIM.

Error Connecting to Database URL

Symptom

After entering database credentials in the installer screens and hitting next, a message pops up with an error like this:

```
Error connecting to database URL <url> as user <user> details...
```

The message prevents you from moving on to the next screen to continue the installation.

Solution

This error occurs when the installer fails to validate the user credentials you have entered on the screen. Make sure that you have entered the credentials properly. If you receive a message similar to this:

```
Error connecting to database URL <url> as user <user> java.lang.Exception:
UnsatisfiedLinkError encountered when using the Oracle driver.
Please check that the library path is set up properly or switch to the JDBC thin
client.
```

It may mean that the installer is using the incorrect library path variables for the platform you are installing on. Open the file <STAGING_DIR>/rms/dbschema/common/preinstall.sh and toggle the variable, use32bit, to True if it is set to False or vice versa. This setting is dependent on the JRE that is being used.

Installer Fails because of missing .jar in $ORACLE_HOME/utils/ccr/lib

Symptom

The jar file expected by the installer (emocmclnt.jar) is overwritten after the OPatch patch 6880880 is applied, and any other patch is applied afterward using that OPatch. If you try running the installer after patching, as outlined in the installation guides for forms based applications, the installer fails. All applications that are installed in the same WebLogic server that hosts any of the forms applications are affected by this issue.This is because of required Oracle patches for Linux 64-bit systems that are applied to the forms server.

Solution

Back up the content of the $ORACLE_HOME/utils/ccr/lib directory prior to applying OPatch patch 6880880, and recopy the content back after you apply any patches using that opatch.

Files not available to copy at the end of installation results in non working applications – WebLogic only

Symptom

If you choose the option **No. Configure but do not install the application** in the installer screen titled **Manual Deployment Option**, necessary wallet files that are required for application run time are deleted at the end of the installation.

Solution

Manual Deployment is not currently available in this installer. Choose **Yes. I have write access to the application server** in the installer screen, **Manual Deployment Option**.

> **Note:** To successfully perform this option, you also need to run the installer as a user with write access to the WebLogic installation.

GUI screens fail to open when running Installer

Symptom

When running the installer in GUI mode, the screens fail to open and the installer ends, returning to the console without an error message. The ant.install.log file contains this error:

```
Fatal exception: Width (0) and height (0) cannot be <= 0
java.lang.IllegalArgumentException: Width (0) and height (0) cannot be <= 0
```

Solution

This error is encountered when Antinstaller is used in GUI mode with certain X Servers. To work around this issue, copy ant.install.properties.sample to ant.install.properties and rerun the installer.

Log in fails with invalid username/password or user unauthorized errors

Symptom

The SIM application log in fails with the following messages: “Invalid username/password” or “User unauthorized or Not authenticated.”

Solution

In SIM Database, in the RK_CONFIG table, the value for SECURITY_AUTHENTICATION_METHOD should be set to 1 for LDAP authentication.

Check in LDAP to be sure the password is set to the correct value.

E

Appendix: Database Parameter File

The database parameter file contains the initial settings to create and run an 11.1.0.7 database.

```
###############################################################################
# Oracle 11.1.0.x Parameter file
#
# NOTES: Before using this script:
#        1.  Change <datafile_path>, <admin_path>, <utl_file_path>, <diag_path>
and <hostname>
#            values as appropriate.
#        2.  Replace the word SID with the database name.
#        3.  Size parameters as necessary for development, test, and production
environments.
# ------------------------------------------------------------------------
# MAINTENANCE LOG
#
# Date     By          Parameter           Old/New         Notes
# +------+ +---------+ +-----------------+ +-------------+ +-------------+
#
#
###############################################################################
# -------------------------------------------------------------------------------
# The policy is to give 60% for sga and 40% for PGA out of Memory Target at
startup
# -------------------------------------------------------------------------------
memory_target                           = 2000M
# --------------------------------------------------------------------------------
audit_file_dest               = <admin_path>/adump
compatible                = 11.1.0
control_files                           = (<datafile_path>/control01.ctl
                                          ,<datafile_path>/control02.ctl)
db_block_size             = 8192      # Default is 2k; adjust before db creation,
cannot change after db is created
db_file_multiblock_read_count        = 16        # Platform specific (max io
size)/(block size)
db_name               = SID
diagnostic_dest                         = '<diag_path>'
java_pool_size            = 100M
job_queue_processes           = 5         # Oracle Retail required; number of
cpu's + 1
local_listener                =
"(ADDRESS=(PROTOCOL=TCP)(HOST=<hostname>)(PORT=1521))"
nls_calendar                            = GREGORIAN
nls_date_format               = DD-MON-RR # Oracle Retail required; if RDW
database see later entry for proper format
nls_language              = AMERICAN  # Default
nls_numeric_characters        = ".,"      # Should be explicitly set to ensure all
users/batch get the same results
nls_sort              = BINARY    # Should be explicitly set to ensure all
sessions get the same order
nls_territory             = AMERICA   # Default
open_cursors              = 900       # Oracle Retail required (minimum=900);
default is 50
optimizer_features_enable     = 11.1.0.7
```

```
optimizer_mode            = CHOOSE    # Oracle Retail required
plsql_optimize_level                    = 2         # 10g change; use this setting 
to optimize plsql performance
processes                 = 2000       # Max number of OS  processes that can 
connect to the db
query_rewrite_enabled         = TRUE      # Oracle Retail required for function-
based indexes
session_cached_cursors                  = 900       # Oracle Retail required;
undo_management               = AUTO
undo_retention            = 1800      # Currently set for 30 minutes; set to avg 
length of transactions in sec
undo_tablespace               = undo_ts
user_dump_dest            = <admin_path>/udump
utl_file_dir                            = <utl_file_path>
workarea_size_policy                    = auto          # Should be set to auto 
when pga_aggregate_target is set
#
# ***  Set these parameters for Oracle Retail Data Warehouse (RDW) database ***
#nls_date_format              = DD-MON-RRRR  # Required by MicroStrategy
#query_rewrite_integrity                = TRUSTED
#star_transformation_enabled            = TRUE
#utl_file_dir                           = <Windows_utl_file_path>, 
<UNIX_util_file_path>
#
# ***  Archive Logging, set if needed  ***
#log_archive_dest_1                     = 'location=<admin_path>/arch/'
#log_archive_format                 = SIDarch_%r_%s_%t.log
#log_buffer            = 10485760    # Set to (512K or 128K)*CPUs
#log_checkpoint_interval                = 51200     # Default:0 - unlimited
#log_checkpoint_timeout                 = 7200      # Default:1800 seconds
```

F

Appendix: Oracle Single Sign-On for Oracle Application Server (OAS)

Single Sign-On (SSO) is a term for the ability to sign onto multiple web applications via a single user ID/Password. There are many implementations of SSO – Oracle currently provides three different implementations: Oracle Single Sign-On (SSO), Java SSO (with the 10.1.3.1 release of OC4J) and Oracle Access Manager (provides more comprehensive user access capabilities).

Most, if not all, SSO technologies use a session cookie to hold encrypted data passed to each application. The SSO infrastructure has the responsibility to validate these cookies and, possibly, update this information. The user is directed to log on only if the cookie is not present or has become invalid. These session cookies are restricted to a single browser session and are never written to a file.

Another facet of SSO is how these technologies redirect a user's Web browser to various servlets. The SSO implementation determines when and where these redirects occur and what the final screen shown to the user is.

Most SSO implementations are performed in an application's infrastructure and not in the application logic itself. Applications that leverage infrastructure managed authentication (such as deploying specifying "Basic" or "Form" authentication) typically have little or no code changes when adapted to work in an SSO environment.

What Do I Need for Oracle Single Sign-On?

The nexus of an Oracle Single Sign-On system is the Oracle Identity Management Infrastructure installation. This consists of the following components:

- An Oracle Internet Directory (OID) LDAP server, used to store user, role, security, and other information. OID uses an Oracle database as the back-end storage of this information.
- An Oracle Single Sign-On servlet, used to authenticate the user and create the SSO session cookie. This servlet is deployed within the infrastructure Oracle Application Server (OAS).
- The Delegated Administration Services (DAS) application, used to administer users and group information. This information may also be loaded or modified via standard LDAP Data Interchange Format (LDIF) scripts.
- Additional administrative scripts for configuring the OSSO system and registering HTTP servers.

Additional OAS servers will be needed to deploy the business applications leveraging the OSSO technology.

Can Oracle Single Sign-On Work with Other SSO Implementations?

Yes, OSSO has the ability to interoperate with many other SSO implementations, but some restrictions exist.

Oracle Single Sign-on Terms and Definitions

This section provides definitions for terms pertaining to Oracle Single Sign-on.

Authentication

Authentication is the process of establishing a user's identity. There are many types of authentication. The most common authentication process involves a user ID and password.

Dynamically Protected URLs

A Dynamically Protected URL is a URL for which the implementing application is aware of the OSSO environment. The application may allow a user limited access when the user has not been authenticated. Applications that implement dynamic OSSO protection typically display a log in link to provide user authentication and gain greater access to the application's resources.

Identity Management Infrastructure

The Identity Management Infrastructure is the collection of product and services which provide Oracle Single Sign-on functionality. This includes the Oracle Internet Directory, an Oracle HTTP server, and the Oracle Single Sign-On services. The Oracle Application Server deployed with these components is typically referred as the Infrastructure instance.

MOD_OSSO

mod_osso is an Apache Web Server module an Oracle HTTP Server uses to function as a partner application within an Oracle Single Sign-On environment. The Oracle HTTP Server is based on the Apache HTTP Server.

Oracle Internet Directory

Oracle Internet Directory (OID) is an LDAP-compliant directory service. It contains user ids, passwords, group membership, privileges, and other attributes for users who are authenticated using Oracle Single Sign-On.

Partner Application

A partner application is an application that delegates authentication to the Oracle Identity Management Infrastructure. One such partner application is the Oracle HTTP Server (OHS) supplied with the Oracle Application Server. OHS uses the MOD_OSSO module to configure this functionality.

All partner applications must be registered with the Oracle Single Sign-On server. An output product of this registration is a configuration file the partner application uses to verify a user has been previously authenticated.

Realm

A Realm is a collection users and groups (roles) managed by a single password policy. This policy controls what may be used for authentication (for example, passwords, X.509 certificates, and biometric devices). A Realm also contains an authorization policy used for controlling access to applications or resources used by one or more applications.

A single OID can contain multiple Realms. This feature can consolidate security for retailers with multiple banners or to consolidate security for multiple development and test environments.

Statically Protected URLs

A URL is considered to be Statically Protected when an Oracle HTTP server is configured to limit access to this URL to only OSSO authenticated users. Any attempt to access a Statically Protected URL results in the display of a login page or an error page to the user.

Servlets, static HTML pages, and JSP pages may be statically protected.

What Single Sign-On is not

Single Sign-On is NOT a user ID/password mapping technology.

However, some applications can store and retrieve user IDs and passwords for non-SSO applications within an OID LDAP server. An example of this is the Oracle Forms Web Application framework, which maps OSSO user IDs to a database logins on a per-application basis.

How Oracle Single Sign-On Works

Oracle Single Sign-On involves a couple of different components. These are:

- The Oracle Single Sign-On (OSSO) servlet, which is responsible for the back-end authentication of the user.
- The Oracle Internet Directory LDAP server, which stores user IDs, passwords, and group (role) membership.
- The Oracle HTTP Server associated with the web application, which verifies and controls browser redirection to the OSSO servlet.
- If the web application implements dynamic protection, then the web application itself is involved with the OSSO system.

Statically Protected URLs

When an unauthenticated user accesses a statically protected URL, the following occurs:

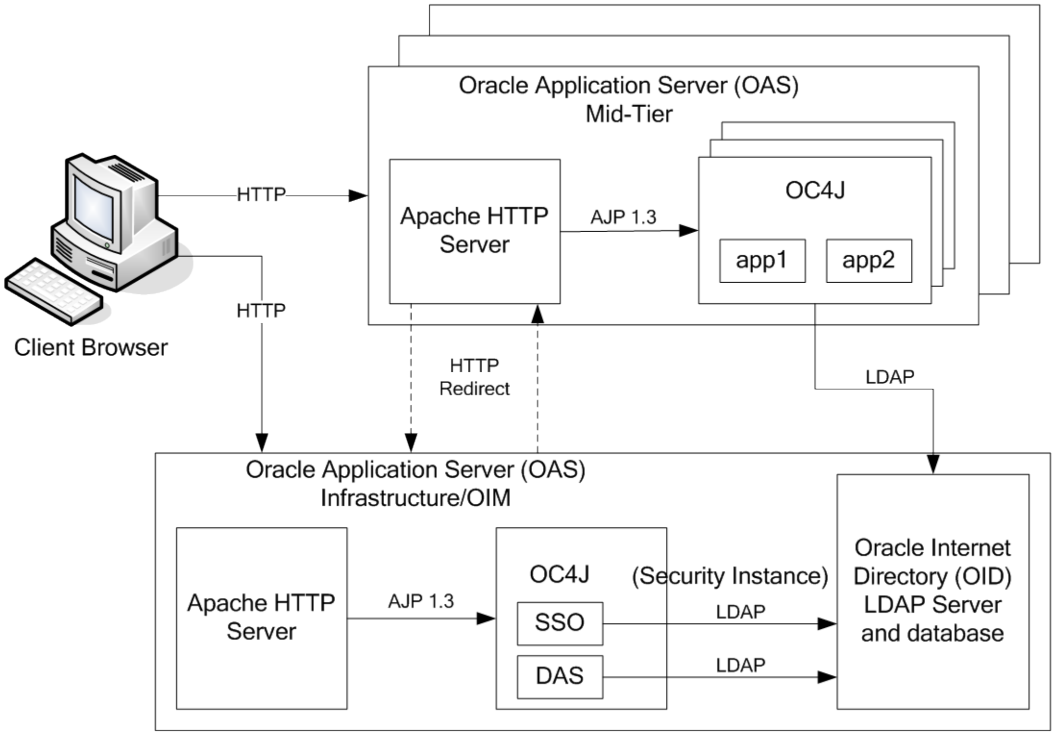
1. The Oracle HTTP server recognizes the user has not been authenticated and redirects the browser to the Oracle Single Sign-On servlet.
2. The OSSO servlet determines the user must authenticate, and displays the OSSO login page.
3. The user must sign in via a valid user ID and password. If the OSSO servlet has been configured to support multiple Realms, a valid realm must also be entered. The user ID, password, and realm information is validated against the Oracle Internet Directory LDAP server.
4. The OSSO servlet creates and sends the user’s browser an OSSO session cookie. This cookie is never persisted to disk and is specific only to the current browser session. This cookie contains the user’s authenticated identity. It does NOT contain the user’s password.
5. The OSSO servlet redirects the user back to the Oracle HTTP Server, along with OSSO specific information.
6. The Oracle HTTP Server decodes the OSSO information, stores it with the user’s session, and allows the user access to the original URL.

Dynamically Protected URLs

When an unauthenticated user accesses a dynamically protected URL, the following occurs:

1. The Oracle HTTP server recognizes the user has not been authenticated, but allows the user to access the URL.
2. The application determines the user must be authenticated and sends the Oracle HTTP server a specific status to begin the authentication process.
3. The Oracle HTTP Server redirects the user's browser session to the OSSO Servlet.
4. The OSSO servlet determines the user must authenticate, and displays the OSSO login page.
5. The user must sign in via a valid user ID and password. If the OSSO servlet has been configured to support multiple Realms, a valid realm must also be entered. The user ID, password, and realm information is validated against the Oracle Internet Directory LDAP server.
6. The OSSO servlet creates and sends the user's browser an OSSO session cookie. This cookie is never persisted to disk and is specific only to the current browser session. This cookie contains the user's authenticated identity. It does NOT contain the user's password.
7. The OSSO servlet redirects the user back to the Oracle HTTP Server, along with OSSO specific information.
8. The Oracle HTTP Server decodes the OSSO information, stores it with the user's session, and allows the user access to the original URL.

Single Sign-on Topology



Installation Overview

Installing Oracle Single Sign-On consists of installing the following components:

1. Installing the Oracle Internet Directory (OID) LDAP server and the Infrastructure Oracle Application Server (OAS). These are typically performed using a single session of the Oracle Universal Installer and are performed at the same time. OID requires an Oracle relational database and if one is not available, the installer will also install this as well.

   The Infrastructure OAS includes the Delegated Administration Services (DAS) application as well as the OSSO servlet. The DAS application can be used for user and realm management within OID.
2. Installing additional OAS 10.1.2 mid tier instances for the Oracle Retail applications, such as RMS, that are based on Oracle Forms technologies. These instances must be registered with the Infrastructure OAS installed in step 1).
3. Installing additional application servers to deploy other Oracle Retail applications and performing application specific initialization and deployment activities.

Infrastructure Installation and Configuration

The Infrastructure installation for OSSO is dependent on the environment and requirements for its use. Deploying an Infrastructure OAS to be used in a test environment does not have the same availability requirements as for a production environment. Similarly, the Oracle Internet Directory (OID) LDAP server can be deployed in a variety of different configurations. See the *Oracle Application Server Installation Guide* and the *Oracle Internet Directory Installation Guide* for more details.

OID User Data

Oracle Internet Directory is an LDAP v3 compliant directory server. It provides standards-based user definitions out of the box.

The current version of Oracle Single Sign-On only supports OID as its user storage facility. Customers with existing corporate LDAP implementations may need to synchronize user information between their existing LDAP directory servers and OID. OID supports standard LDIF file formats and provides a JNDI compliant set of Java classes as well. Moreover, OID provides additional synchronization and replication facilities to integrate with other corporate LDAP implementations.

Each user ID stored in OID has a specific record containing user specific information. For role-based access, groups of users can be defined and managed within OID. Applications can thus grant access based on group (role) membership saving administration time and providing a more secure implementation.

OID with Multiple Realms

OID and OSSO can be configured to support multiple user Realms. Each realm is independent from each other and contains its own set of user IDs. As such, creating a new realm is an alternative to installing multiple OID and Infrastructure instances. Hence, a single Infrastructure OAS can be used to support many development and test environments by defining one realm for each environment.

Realms may also be used to support multiple groups of external users, such as those from partner companies. For more information about Realms, see the Oracle Internet Directory Administrators Guide.

User Management

User Management consists of displaying, creating, updating or removing user information. There are two basic methods of performing user management: LDIF scripts and the Delegate Administration Services (DAS) application.

OID DAS

The DAS application is a web based application designed for both administrators and users. A user may update their password, change their telephone number of record, or modify other user information. Users may search for other users based on partial strings of the user's name or ID. An administrator may create new users, unlock passwords, or delete users.

The DAS application is fully customizable. Administrators may define what user attributes are required, optional or even prompted for when a new user is created.

Furthermore, the DAS application is secure. Administrators may also what user attributes are displayed to other users. Administration is based on permission grants, so different users may have different capabilities for user management based on their roles within their organization.

LDIF Scripts

Script based user management can be used to synchronize data between multiple LDAP servers. The standard format for these scripts is the LDAP Data Interchange Format (LDIF). OID supports LDIF script for importing and exporting user information. LDIF scripts may also be used for bulk user load operations.

User Data Synchronization

The user store for Oracle Single Sign-On resides within the Oracle Internet Directory (OID) LDAP server. Oracle Retail applications may require additional information attached to a user name for application-specific purposes and may be stored in an application-specific database. Currently, there are no Oracle Retail tools for synchronizing changes in OID stored information with application-specific user stores. Implementers should plan appropriate time and resources for this process. Oracle Retail strongly suggests that you configure any Oracle Retail application using an LDAP for its user store to point to the same OID server used with Oracle Single Sign-On.

Setting up SIM for Single Sign-on

To set up Forms for Single Sign-on, the Forms framework must know and/or be configured to use SSO. To do this, the Forms framework configuration file formsweb.cfg must be configured to enable SSO and the mid-tier HTTP Server must be registered with the Oracle Single Sign-On server. In addition, the Forms framework uses Resource Access Descriptor (RAD), to map OSSO user IDs to Database connect strings.

Configuring formsweb.cfg

For each Forms application instance there are two attributes in the Forms framework configuration file `formsweb.cfg` that control SSO behavior:

Name	Value	Description
ssoMode	true/false	Enables/disables SSO
ssoDynamicResourceCreate	true/false	Enables/disables the dynamic RAD entry creation

Creating a RAD Entry

There are three ways by which a RAD entry (mapping an OSSO user ID to a Database connect string) may be created:

- Administrator Created

  An administrator uses the Delegated Administration Services (DAS) web application that comes with the infrastructure server and that can be launched using the URL http://*<host>:port/oiddas*.

- User Created

  The user can dynamically create a RAD entry when the Forms framework prompts the user for information. This however requires that the ssoDynamicResourceCreate attribute be set to true. If a RAD already exists, the user may also create additional RADs via the DAS application.

- LDIF Script

  More information about how to use an LDIF script to create a RAD entry may be found by accessing My Oracle Support document 244526.1.

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Appendix: Oracle Single Sign-On for WebLogic

Single Sign-On (SSO) is a term for the ability to sign onto multiple Web applications via a single user ID/Password. There are many implementations of SSO – Oracle currently provides three different implementations: Oracle Single Sign-On (OSSO), Java SSO (with the 10.1.3.1 release of OC4J) and Oracle Access Manager (provides more comprehensive user access capabilities).

Most, if not all, SSO technologies use a session cookie to hold encrypted data passed to each application. The SSO infrastructure has the responsibility to validate these cookies and, possibly, update this information. The user is directed to log on only if the cookie is not present or has become invalid. These session cookies are restricted to a single browser session and are never written to a file.

Another facet of SSO is how these technologies redirect a user's Web browser to various servlets. The SSO implementation determines when and where these redirects occur and what the final screen shown to the user is.

Most SSO implementations are performed in an application's infrastructure and not in the application logic itself. Applications that leverage infrastructure managed authentication (such as deploying specifying "Basic" or "Form" authentication) typically have little or no code changes when adapted to work in an SSO environment.

What Do I Need for Oracle Single Sign-On?

The nexus of an Oracle Single Sign-On system is the Oracle Identity Management Infrastructure installation. This consists of the following components:

- An Oracle Internet Directory (OID) LDAP server, used to store user, role, security, and other information. OID uses an Oracle database as the back-end storage of this information.
- An Oracle HTTP Server 11g Release 1 as a front end to the Oracle WebLogic Server. The Oracle HTTP Server is included in the Oracle Web Tier Utilities 11g Release 1 (11.1.1).
- An Oracle Single Sign-On Plug-in, used to authenticate the user and create the OSSO session cookie. This is available in the Oracle Fusion Middleware 11g Web Tier Utilities (11.1.1.20) package.
- The Delegated Administration Services (DAS) application, used to administer users and group information. This information may also be loaded or modified via standard LDAP Data Interchange Format (LDIF) scripts.
- Additional administrative scripts for configuring the OSSO system and registering HTTP servers.

Additional WebLogic managed servers will be needed to deploy the business applications leveraging the OSSO technology.

Can Oracle Single Sign-On Work with Other SSO Implementations?

Yes, OSSO has the ability to interoperate with many other SSO implementations, but some restrictions exist.

Oracle Single Sign-on Terms and Definitions

This section provides definitions for terms that pertain to Single Sign-on.

Authentication

Authentication is the process of establishing a user's identity. There are many types of authentication. The most common authentication process involves a user ID and password.

Dynamically Protected URLs

A "Dynamically Protected URL" is a URL whose implementing application is aware of the OSSO environment. The application may allow a user limited access when the user has not been authenticated. Applications that implement dynamic OSSO protection typically display a "Login" link to provide user authentication and gain greater access to the application's resources.

Identity Management Infrastructure

The Identity Management Infrastructure is the collection of product and services which provide Oracle Single Sign-on functionality. This includes the Oracle Internet Directory, an Oracle HTTP server, and the Oracle Single Sign-On services. The Oracle Application Server deployed with these components is typically referred as the Infrastructure instance.

MOD_OSSO

mod_osso is an Apache Web Server module an Oracle HTTP Server uses to function as a partner application within an Oracle Single Sign-On environment. The Oracle HTTP Server is based on the Apache HTTP Server.

MOD_WEBLOGIC

mod_weblogic operates as a module within the HTTP server that allows requests to be proxied from the Apache HTTP server to the WebLogic server.

Oracle Internet Directory

Oracle Internet Directory (OID) is an LDAP-compliant directory service. It contains user ids, passwords, group membership, privileges, and other attributes for users who are authenticated using Oracle Single Sign-On.

Partner Application

A partner application is an application that delegates authentication to the Oracle Identity Management Infrastructure. One such partner application is the Oracle HTTP Server (OHS) supplied with the Oracle Application Server. OHS uses the MOD_OSSO module to configure this functionality.

All partner applications must be registered with the Oracle Single Sign-On server. An output product of this registration is a configuration file the partner application uses to verify a user has been previously authenticated.

Realm

A Realm is a collection users and groups (roles) managed by a single password policy. This policy controls what may be used for authentication (for example, passwords, X.509 certificates, and biometric devices). A Realm also contains an authorization policy used for controlling access to applications or resources used by one or more applications.

A single OID can contain multiple Realms. This feature can consolidate security for retailers with multiple banners or to consolidate security for multiple development and test environments.

Statically Protected URLs

A URL is considered to be “Statically Protected” when an Oracle HTTP server is configured to limit access to this URL to only SSO authenticated users. Any attempt to access a “Statically Protected URL” results in the display of a login page or an error page to the user.

Servlets, static HTML pages, and JSP pages may be statically protected.

> **Note:** Dynamically Protected URL and Statically Protected URL are within the context of the Oracle Software Security Assurance (OSSA). The static protection for URLs is a common JEE feature.

What Single Sign-On is not

Single Sign-On is NOT a user ID/password mapping technology.

However, some applications can store and retrieve user IDs and passwords for non-SSO applications within an OID LDAP server. An example of this is the Oracle Forms Web Application framework, which maps OSSO user IDs to a database logins on a per-application basis.

How Oracle Single Sign-On Works

Oracle Single Sign-On involves a couple of different components. These are:

- The Oracle Single Sign-On (OSSO) servlet, which is responsible for the back-end authentication of the user.
- The Oracle Internet Directory LDAP server, which stores user IDs, passwords, and group (role) membership.
- The Oracle HTTP Server associated with the Web application, which verifies and controls browser redirection to the OSSO servlet.
- If the Web application implements dynamic protection, then the Web application itself is involved with the OSSO system.

Statically Protected URLs

When an unauthenticated user accesses a statically protected URL, the following occurs:

1. The user’s Web browser makes an HTTP request to a protected URL serviced by the Oracle HTTP Server (OHS).
2. The Oracle HTTP Server processses the request and routes it to the mod_oss module.

3. This module determines whether the user is already authenticated. If the authentication is required, it directs the browser to the OSSO server. The OSSO server checks for a secure cookie containing the authentication information. If the cookie is not found, the following occurs:
   a. The OSSO servlet determines the user must authenticate, and displays the OSSO login page.
   b. The user must sign in via a valid user ID and password. If the OSSO servlet has been configured to support multiple Realms, a valid realm must also be entered. The user ID, password, and realm information is validated against the Oracle Internet Directory LDAP server. The browser is then redirected back to the Oracle HTTP Server with the encrypted authentication credentials. It does NOT contain the user's password.
4. The mod_osso module then decrypts the user credentials and sets HTTP headers with relevant user attributes, marking the user's session as authenticated.
5. The mod_weblogic module (within the Oracle HTTP Server) then forwards the request to the Oracle WebLogic Server.
6. The Oracle WebLogic Server then invokes the configured authentication providers that decode the headers and provide the user's role membership. In an OSSO implementation, ensure that the OSSO Identity Asserter is invoked and Oracle Internet Directory (OID) Authenticator is executed to provide the user's role membership.
7. Once the authentication is established, the relevant application logic is initiated and the response is sent back to the user through the Oracle HTTP Server.
   Because the Web browser session is now authenticated, subsequent requests in that session are not redirected to the OSSO server for authentication.

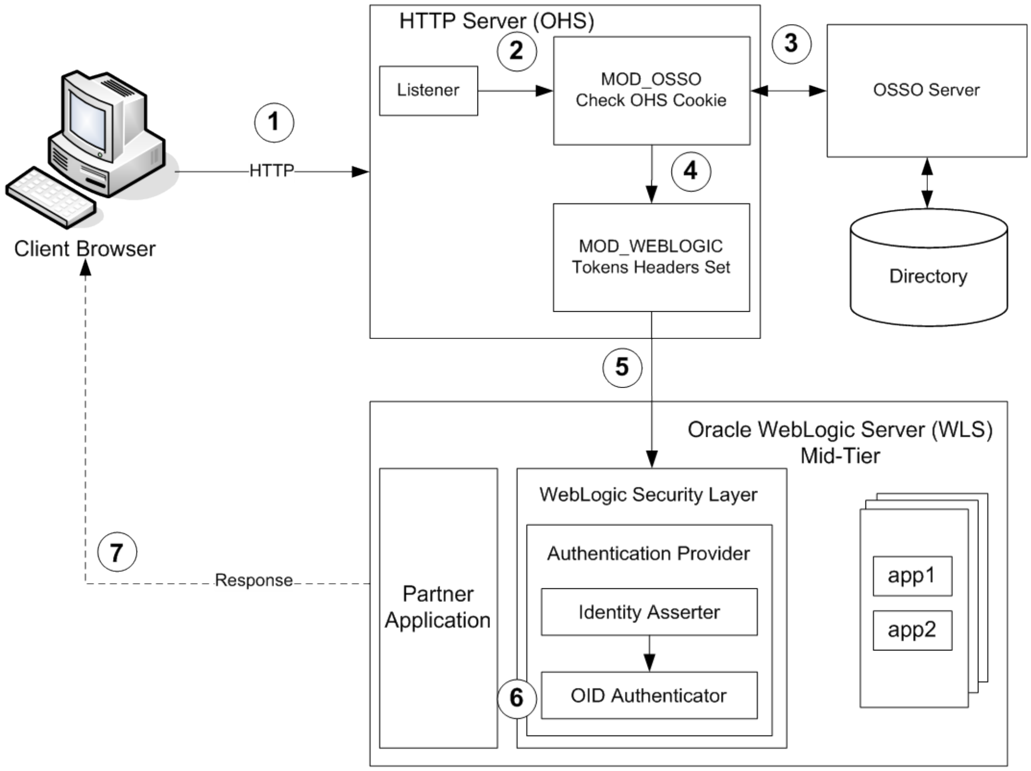
Dynamically Protected URLs

When an unauthenticated user accesses a dynamically protected URL, the following occurs:

1. The user's Web browser makes an HTTP request to a protected URL serviced by the Oracle HTTP Server (OHS). The Oracle HTTP server recognizes the user has not been authenticated, but allows the user to access the URL.
2. The application determines the user must be authenticated and send the Oracle HTTP Server a specific status to begin the authentication process.
3. The Oracle HTTP Server processes the request and routes it to the mod_oss module.
4. This module determines whether the user is already authenticated. If the authentication is required, it directs the browser to the OSSO server. The OSSO server checks for a secure cookie containing the authentication information. If the cookie is not found, the following occurs:
   a. The OSSO servlet determines the user must authenticate, and displays the OSSO login page.
   b. The user must sign in via a valid user ID and password. If the OSSO servlet has been configured to support multiple Realms, a valid realm must also be entered. The user ID, password, and realm information is validated against the Oracle Internet Directory LDAP server. The browser is then redirected back to the Oracle HTTP Server with the encrypted authentication credentials. It does NOT contain the user's password.
5. The mod_osso module then decrypts the user credentials and sets HTTP headers with relevant user attributes, marking the user's session as authenticated.

6. The mod_weblogic module (within the Oracle HTTP Server) then forwards the request to the Oracle WebLogic Server.
7. The Oracle WebLogic Server then invokes the configured authentication providers that decode the headers and provide the user's role membership. In an OSSO implementation, ensure that the OSSO Identity Asserter is invoked and Oracle Internet Directory (OID) Authenticator is executed to provide the user's role membership.
8. Once the authentication is established, the relevant application logic is initiated and the response is sent back to the user through the Oracle HTTP Server.
Because the Web browser session is now authenticated, subsequent requests in that session are not redirected to the OSSO server for authentication.

Single Sign-on Topology



Installation Overview

Installing Oracle Single Sign-On consists of installing the following components:

1. Installing the Oracle Internet Directory (OID) LDAP server and the Infrastructure Oracle Application Server (OAS). These are typically performed using a single session of the Oracle Universal Installer and are performed at the same time. OID requires an Oracle relational database and if one is not available, the installer will also install this as well.

   The Infrastructure OAS includes the Delegated Administration Services (DAS) application as well as the OSSO servlet. The DAS application can be used for user and realm management within OID.

2. Installing additional midtier instances (such as OAS 10.1.4) for the Oracle Retail applications, such as RMS, that are based on Oracle Forms technologies. These instances must be registered with the Infrastructure OAS installed in step 1.
3. Installing additional application servers to deploy other Oracle Retail applications and performing application specific initialization and deployment activities.

Infrastructure Installation and Configuration

The Infrastructure installation for OSSO is dependent on the environment and requirements for its use. Deploying an Infrastructure OAS to be used in a test environment does not have the same availability requirements as for a production environment. Similarly, the Oracle Internet Directory (OID) LDAP server can be deployed in a variety of different configurations. See the *Oracle Application Server Installation Guide* and the *Oracle Internet Directory Installation Guide* for more details.

OID User Data

Oracle Internet Directory is an LDAP v3 compliant directory server. It provides standards-based user definitions out of the box.

The current version of Oracle Single Sign-On only supports OID as its user storage facility. Customers with existing corporate LDAP implementations may need to synchronize user information between their existing LDAP directory servers and OID. OID supports standard LDIF file formats and provides a JNDI compliant set of Java classes as well. Moreover, OID provides additional synchronization and replication facilities to integrate with other corporate LDAP implementations.

Each user ID stored in OID has a specific record containing user specific information. For role-based access, groups of users can be defined and managed within OID. Applications can thus grant access based on group (role) membership saving administration time and providing a more secure implementation.

OID with Multiple Realms

OID and OSSO can be configured to support multiple user Realms. Each realm is independent from each other and contains its own set of user IDs. As such, creating a new realm is an alternative to installing multiple OID and Infrastructure instances. Hence, a single Infrastructure OAS can be used to support development and test environments by defining one realm for each environment.

Realms may also be used to support multiple groups of external users, such as those from partner companies. For more information on Realms, see the *Oracle Internet Directory Administrators Guide*.

User Management

User Management consists of displaying, creating, updating or removing user information. There are two basic methods of performing user management: LDIF scripts and the Delegate Administration Services (DAS) application.

OID DAS

The DAS application is a Web-based application designed for both administrators and users. A user may update their password, change their telephone number of record, or modify other user information. Users may search for other users based on partial strings of the user's name or ID. An administrator may create new users, unlock passwords, or delete users.

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LDIF Scripts

Script based user management can be used to synchronize data between multiple LDAP servers. The standard format for these scripts is the LDAP Data Interchange Format (LDIF). OID supports LDIF script for importing and exporting user information. LDIF scripts may also be used for bulk user load operations.

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How to Configure Single Sign On Functionality on SIM

This is a step by step procedure to set SSO on SIM Oracle Retail Application for the present release. Follow the instructions contained in the Part 1 and Part II of this section.

Part I

To get SSO functionality on SIM, there are some manual steps to adjust one of the properties files, the JnlpLaunch.properties file. When SIM was installed on the server, the JnlpLaunch.properties file was configured to work with the SIM managed server port number from your WebLogic installation. When SIM was deployed, WebLogic put two EAR files in the stage directory of the SIM managed server. The JnlpLaunch.properties file resides in these EAR files.

To get SSO working, replace the original port number for the Web Tier (OHS) port number in the JnlpLaunch.properties file.

To to replace the original managed server port number with the Web Tier OHS port number in the JnlpLaunch.properties file, complete the following steps.

1. Stop the SIM managed server.
2. JnlpLaunch.properties file is located in two of the EAR files that were deployed to your WebLogic installation and they are located here.

```
$WEBLOGIC_ DOMAIN_HOME/servers/sim-server/stage/sim-client/sim-client.ear
$WEBLOGIC_ DOMAIN_HOME/servers/sim-server/stage/sim-server/sim-server.ear
```

3. Make backups of both EAR files:
   - cp sim-client.ear sim-client.ear_BK
   - cp sim-server.ear sim-server.ear_BK

4. Create a /tmp-client directory and move sim-client.ear to this directory, expand the EAR file and modify JnlpLaunch.properties file.

   a. jar xvf sim-client.ear

      JnlpLaunch.properties file is inside ./conf directory

   b. cd to ./conf directory and modify JnlpLaunch.properties

      Example:

      ```
      Original value:
      “...
      ...
      token.sim_download_url=http://myserver.com:8002/sim-client
      ...
      ...”
      ```

      In this case, 8002 is the SIM managed Server port number.

      ```
      New value:
      “...
      token.sim_download_url=http://myserver.com:8888/sim-client
      ...
      ...”
      ```

      In this case, 8888 is the WebTier port number.

      To find the OHS port number in your Web Tier installation, enter from the command line:

      $ORACLE_WEB_TIER/instances/instance1/bin/opmnctl status -l

      ```
      Processes in Instance: instance1
      ----------------------------------------------------------------------------------------------------
           ias-component  | process-type  | ports
      ----------------------------------------------------------------------------------------------------
           ohs1           | OHS           | https:8889,https:4443,http:8888
      ```

      The OHS port number is highlighted on the second line **http:8888**

      Do not change any other parameters and save JnlpLaunch.properties file.

5. cd to /tmp-client directory and compress the contents of this directory. Enter this command to keep all the entries in the META-INF/MANIFEST.MF file and to get the new sim-client.ear file:

   jar cvMf sim-client.ear .

   NOTE: This command must be typed in this way (jar cvMf) to keep all entries in the MANIFEST.MF FILE)

6. Move the new sim-client.ear file to its original location, in $WEBLOGIC_DOMAIN_HOME/servers/sim-server/stage/sim-client directory.

7. Create a /tmp-server directory and move sim-server.ear to this directory, expand the EAR file, modify JnlpLaunch.properties and compress directory contents to get new sim-server.ear.

   a. jar xvf sim-server.ear

      JnlpLaunch.properties file is in the root directory

   b. modify JnlpLaunch.properties file

      Example:

      ```
      Original value:
        “...
      ...
      token.sim_download_url=http://myserver.com:8002/sim-client
      ```

```
 ...
...”
 New value:
 “...
 ...
 token.sim_download_url=http://myserver.com:8888/sim-client
 ...
 ...”
```

Do not change any other parameter in this file and save JnlpLaunch.properties file.

c. From the root of /tmp-server directory compress the contents of the directory to get the new sim-server.ear file by entering this command:

jar cvMf sim-server.ear

> **Note:** This command must be typed in this way (jar cvMf) to keep all entries in the MANIFEST.MF FILE

d. Move the new sim-server.ear file to its original location, in `<WEBLOGIC_DOMAIN_HOME>/servers/sim-server/stage/<sim-server> directory`

e. Start the SIM managed server to update in WebLogic server the changes to your SIM files.

> **Note:** For SSO, SIM managed server should be started using the following parameter. Dweblogic.http.enableRemoteUserHeader=true.
>
> For example: <WEBLOGIC_DOMAIN_HOME>/bin/startManagedWeblogic.sh <sim-server> <server:port> -Dweblogic.http.enableRemoteUserHeader=true.
>
> If the <sim-server> is being started from WebLogic Admin console, the above parameter should be added here before restarting the SIM managed server from the Admin console: Adminconsole > Environment > Servers > <sim-server> > Server Start > Arguments.

Part II

1. When SIM is installed for SSO functionality, before launching SIM, switch the SIM database from INTERNAL SECURITY ACCESS to EXTERNAL SECURITY ACCESS Protect the application as follows:

   a. Switch SIM database security access.

   b. On the table RK_CONFIG', the column CONFIG_VALUE must be equal to 1 when the column CONFIG_KEY is equal to SECURITY_AUTHENTICATION_METHOD.

```
sql> UPDATE RK_CONFIG
   SET CONFIG_VALUE = '1'
   WHERE CONFIG_KEY = 'SECURITY_AUTHENTICATION_METHOD';
sql> commit;
```

2. In Oracle Web Tier (OHS), add some entries to two Oracle Web Tier files, mod_osso.conf and mod_wl_ohs.conf, as follows:

   a. Enter two <Location> entries in the file mod_osso.conf located here:

      $ORACLE_WEB_TIER/instances/instance1/config/OHS/ohs1/moduleconf

      ```
      "...
      <Location /sim-client>
         WebLogicHost   myhostname.com
         WebLogicPort   SIM managed server port number
       </Location>
      <Location /sim-client/launch>
         WebLogicHost   myhostname.com
         WebLogicPort   SIM managed server port number
         require valid-user
         AuthType Osso
       </Location>
       ..."
      ```

      A real life example is as follows:

      ```
        "...
         <Location /sim-client>
            WebLogicHost   myhostname.com
            WebLogicPort   8002
         </Location>
         <Location /sim-client/launch>
            WebLogicHost   myhostname.com
            WebLogicPort   8002
            require valid-user
            AuthType Osso
         </Location>
      ..."
      ```

   b. Enter one entry for <Location> in the file mod_wl_ohs.conf located here:

      $ORACLE_WEB_TIER/ instances/instance1/config/OHS/ohs1

      ```
       "...
          <Location /sim-client>
              SetHandler weblogic-handler
          </Location>
       ..."
      ```

   c. Re-start OHS server to read the configuration changes.

      $ORACLE_WEB_TIER/instances/instance1/bin/opmnctl stopproc ias-component=ohs1

      $ORACLE_WEB_TIER/instances/instance1/bin/opmnctl startproc ias-component=ohs1

   d. Launch SIM.

      The SIM URL should include the OHS port number. To find the OHS port number in your Web Tier installation, enter from the command line:

      $ORACLE_WEB_TIER/instances/instance1/bin/opmnctl status -l

```
Processes in Instance: instance1
---------------------------------------------------------------------------------------------------------
ias-component  | process-type  | ports
---------------------------------------------------------------------------------------------------------
ohs1           | OHS           | https:8889,https:4443,http:8888
```

The OHS port number is highlighted on the second line http:8888. The SIM URL should look like this:

http://myhostname.com:8888/sim-client/launch?template=sim_jnlp_template.vm

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Appendix: Setting Up Password Stores with Oracle Wallet

As part of an application installation, administrators must set up password stores for database user accounts using Oracle Wallet. These password stores must be installed on the application database side. While the installer handles much of this process, the administrators must perform some additional steps.

A password store for the application and application server user accounts must also be installed; however, the installer takes care of this entire process.

About Password Stores and Oracle Wallet

Oracle databases have allowed other users on the server to see passwords in case database connect strings (username/password@db) were passed to programs. In the past, users could navigate to `ps –ef|grep <username>` to see the password if the password was supplied in the command line when calling a program.

To make passwords more secure, Oracle Retail has implemented the Oracle Software Security Assurance (OSSA) program. Sensitive information such as user credentials now must be encrypted and stored in a secure location. This location is called password stores or wallets. These password stores are secure software containers that store the encrypted user credentials.

Users can retrieve the credentials using aliases that were set up when encrypting and storing the user credentials in the password store. For example, if `username/password@db` is entered in the command line argument and the alias is called `db_username`, the argument to a program is as follows:

```
sqlplus /@db_username
```

This would connect to the database as it did previously, but it would hide the password from any system user.

After this is configured, as in the example above, the application installation and the other relevant scripts are no longer needed to use embedded usernames and passwords. This reduces any security risks that may exist because usernames and passwords are no longer exposed.

When the installation starts, all the necessary user credentials are retrieved from the Oracle Wallet based on the alias name associated with the user credentials.

There are two different types of password stores or wallets. One type is for database connect strings used in program arguments (such as `sqlplus /@db_username`). The other type is for Java application installation and application use.

Setting Up Password Stores for Database User Accounts

After the database is installed and the default database user accounts are set up, administrators must set up a password store using the Oracle wallet. This involves assigning an alias for the username and associated password for each database user account. The alias is used later during the application installation. This password store must be created on the system where the application server and database client are installed.

This section describes the steps you must take to set up a wallet and the aliases for the database user accounts. For more information on configuring authentication and password stores, see the *Oracle Database Security Guide*.

> **Note:** In this section, `<wallet_location>` is a placeholder text for illustration purposes. Before running the command, ensure that you specify the path to the location where you want to create and store the wallet.

To set up a password store for the database user accounts, perform the following steps:

1. Create a wallet using the following command:

   ```
   kstore -wrl <wallet_location> -create
   ```

   After you run the command, a prompt appears. Enter a password for the Oracle Wallet in the prompt.

   > **Note:** The `mkstore` utility is included in the Oracle Database Client installation.

   The wallet is created with the auto-login feature enabled. This feature enables the database client to access the wallet contents without using the password. For more information, refer to the *Oracle Database Advanced Security Administrator's Guide.*

2. Create the database connection credentials in the wallet using the following command:

   ```
   mkstore -wrl <wallet_location> -createCredential <alias-name> <database-user-
   name>
   ```

   After you run the command, a prompt appears. Enter the password associated with the database user account in the prompt.

3. Repeat Step 2 for all the database user accounts.

4. Update the sqlnet.ora file to include the following statements:

   ```
   WALLET_LOCATION = (SOURCE = (METHOD = FILE) (METHOD_DATA = (DIRECTORY =
   <wallet_location>)))
   SQLNET.WALLET_OVERRIDE = TRUE
   SSL_CLIENT_AUTHENTICATION = FALSE
   ```

5. Update the tnsnames.ora file to include the following entry for each alias name to be set up.

```
<alias-name> =
    (DESCRIPTION =
     (ADDRESS_LIST =
            (ADDRESS = (PROTOCOL = TCP) (HOST = <host>) (PORT = <port>))
        )
        (CONNECT_DATA =
            (SERVICE_NAME = <service>)
         )
  )
```

   In the previous example, <alias-name>, <host>, <port>, and <service> are placeholder text for illustration purposes. Ensure that you replace these with the relevant values.

Setting Up Wallets for Database User Accounts

The following examples show how to set up wallets for database user accounts for the following applications:

- For RMS, RWMS, RPM Batch, RETL, RMS, RWMS, and ARI
- For Java Applications (SIM, ReIM, RPM, Alloc, RIB, RSL, AIP, RETL)

For RMS, RWMS, RPM Batch, RETL, RMS, RWMS, and ARI

To set up wallets for database user accounts, do the following.

1. Create a new directory called wallet under your folder structure.

```
cd /projects/rms13.2/dev/
mkdir .wallet
```

> **Note:** The default permissions of the wallet allow only the owner to use it, ensuring the connection information is protected. If you want other users to be able to use the connection, you must adjust permissions appropriately to ensure only authorized users have access to the wallet.

2. Create a sqlnet.ora in the wallet directory with the following content.

```
WALLET_LOCATION =   (SOURCE =     (METHOD = FILE)     (METHOD_DATA =
(DIRECTORY =  /projects/rms13.2/dev/.wallet)) )
SQLNET.WALLET_OVERRIDE=TRUE
SSL_CLIENT_AUTHENTICATION=FALSE
```

> **Note**: WALLET_LOCATION must be on line 1 in the file.

3. Setup a tnsnames.ora in the wallet directory. This tnsnames.ora includes the standard tnsnames.ora file. Then, add two custom tns_alias entries that are only for use with the wallet. For example, `sqlplus /@dvols29_rms01user`.

```
ifile = /u00/oracle/product/11.2.0.1/network/admin/tnsnames.ora

dvols29_rms01user =
  (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = tcp)
  (host = mspdv311.us.oracle.com) (Port = 1521)))
    (CONNECT_DATA = (SID = dvols29) (GLOBAL_NAME = dvols29)))

dvols29_rms01user.world =
  (DESCRIPTION = (ADDRESS_LIST = (ADDRESS = (PROTOCOL = tcp)
  (host = mspdv311.us.oracle.com) (Port = 1521)))
(CONNECT_DATA = (SID = dvols29) (GLOBAL_NAME = dvols29)))
```

Note: It is important to not just copy the tnsnames.ora file because it can quickly become out of date. The ifile clause (shown above) is key.

4. Create the wallet files. These are empty initially.
   a. Ensure you are in the intended location.
   ```
   $ pwd
   /projects/rms13.2/dev/.wallet
   ```
   b. Create the wallet files.
   ```
   $ mkstore -wrl . –create
   ```
   c. Enter the wallet password you want to use. It is recommended that you use the same password as the UNIX user you are creating the wallet on.
   d. Enter the password again.

   Two wallet files are created from the above command:
   – ewallet.p12
   – cwallet.sso
5. Create the wallet entry that associates the user name and password to the custom tns alias that was setup in the wallet's tnsnames.ora file.
   ```
   mkstore –wrl . –createCredential <tns_alias> <username> <password>
   ```
   Example: `mkstore –wrl . –createCredential dvols29_rms01user rms01user passwd`
6. Test the connectivity. The ORACLE_HOME used with the wallet must be the same version or higher than what the wallet was created with.
   ```
   $ export TNS_ADMIN=/projects/rms13.2/dev/.wallet /* This is very import to use
   wallet to point at the alternate tnsnames.ora created in this example */

   $ sqlplus /@dvols29_rms01user

   SQL*Plus: Release 11

   Connected to:
   Oracle Database 11g

   SQL> show user
   USER is "rms01user"
   ```
   Running batch programs or shell scripts would be similar:
   ```
   Ex: dtesys /@dvols29_rms01user
   script.sh /@dvols29_rms01user

   Set the UP unix variable to help with some compiles :

   export UP=/@dvols29_rms01user
   for use in RMS batch compiles, and RMS, RWMS, and ARI forms compiles.
   ```
   As shown in the example above, users can ensure that passwords remain invisible.

Additional Database Wallet Commands

The following is a list of additional database wallet commands.

- Delete a credential on wallet

  ```
  mkstore –wrl . –deleteCredential dvols29_rms01user
  ```

- Change the password for a credential on wallet

  ```
  mkstore –wrl . –modifyCredential dvols29_rms01user rms01user passwd
  ```

- List the wallet credential entries

  ```
  mkstore –wrl . –list
  ```

  This command returns values such as the following.

  ```
  oracle.security.client.connect_string1
  oracle.security.client.user1
  oracle.security.client.password1
  ```

- View the details of a wallet entry

  ```
  mkstore –wrl . –viewEntry oracle.security.client.connect_string1
  ```

  Returns the value of the entry:

  ```
  dvols29_rms01user
  mkstore –wrl . –viewEntry oracle.security.client.user1
  ```

  Returns value of the entry:

  ```
  rms01user
  ```

  ```
  mkstore –wrl . –viewEntry oracle.security.client.password1
  ```

  Returns value of the entry:

  ```
  passwd
  ```

For Java Applications (SIM, ReIM, RPM, Alloc, RIB, RSL, AIP, RETL)

For Java application, consider the following:

- For database user accounts, ensure that you set up the same alias names between the password stores (database wallet and Java wallet). You can provide the alias name during the installer process.
- Document all aliases that you have set up. During the application installation, you must enter the alias names for the application installer to connect to the database and application server.
- Passwords are not used to update entries in Java wallets. Entries in Java wallets are stored in partitions, or application-level keys. In each retail application that has been installed, the wallet is located in <WEBLOGIC_DOMAIN_HOME>/retail/<appname>/config Example: mspdv351:[1033_WLS] /u00/webadmin/product/10.3.3/WLS/user_projects/domains/132_mck_soa_domain/retail/reim13/config
- Application installers should create the Java wallets for you, but it is good to know how this works for future use and understanding.
- Scripts are located in <WEBLOGIC_DOMAIN_HOME>/retail/<appname>/retail-public-security-api/bin for administering wallet entries.

  Example:

  mspdv351:[1033_WLS] /u00/webadmin/product/10.3.3/WLS/user_projects/domains/132_mck_soa_domain/retail/reim13/retail-public-security-api/bin
- In this directory is a script to help you update each alias entry without having to remember the wallet details. For example, if you set the RPM database alias to rms01user, you will find a script called update-RMS01USER.sh.

> **Note:** These scripts are available only with application installed by way of an installer.

- Two main scripts are related to this script in the folder for more generic wallet operations: dump_credentials.sh and save_credential.sh.
- If you have not installed the application yet, you can unzip the application zip file and view these scripts in <app>/application/retail-public-security-api/bin.

  Example:

  mspdv351:[1033_WLS] /u00/webadmin/reim/application/retail-public-security-api/bin

update-<ALIAS>.sh

update-<ALIAS>.sh updates the wallet entry for this alias. You can use this script to change the user name and password for this alias. Because the application refers only to the alias, no changes are needed in application properties files.

Usage:

```
update-<username>.sh <myuser>
```

Example:

```
mspdev71:[1034WLS]
/u00/webadmin/product/10.3.4/WLS/user_projects/domains/java_domain/retail/rpm1
32test/retail-public-security-api/bin> ./update-RMS01USER.sh
usage: update-RMS01USER.sh <username>
<username>: the username to update into this alias.
Example: update-RMS01USER.sh myuser
Note: this script will ask you for the password for the username that you pass
in.
mspdev71:[1034WLS]
/u00/webadmin/product/10.3.4/WLS/user_projects/domains/java_domain/retail/rpm1
32test/retail-public-security-api/bin>
```

dump_credentials.sh

dump_credentials.sh is used to retrieve information from wallet. For each entry found in the wallet, the wallet partition, the alias, and the user name are displayed. Note that the password is not displayed. If the value of an entry is uncertain, run save_credential.sh to resave the entry with a known password.

```
dump_credentials.sh <wallet location>
```

Example:

```
dump_credentials.sh
location:/u00/webadmin/product/10.3.3/WLS/user_projects/domains/132_mck_soa_do
main/retail/reim13/config

Retail Public Security API Utility
=============================================
```

Below are the credentials found in the wallet at the location:/u00/webadmin/product/10.3.3/WLS/user_projects/domains/132_mck_soa_domain/retail/reim13/config

```
=============================================

Application level key partition name:reim13
User Name Alias:WLS-ALIAS User Name:weblogic
User Name Alias:RETAIL-ALIAS User Name:retail.user
User Name Alias:LDAP-ALIAS User Name:RETAIL.USER
User Name Alias:RMS-ALIAS User Name:rms132mock
User Name Alias:REIMBAT-ALIAS User Name:reimbat
```

save_credential.sh

save_credential.sh is used to update the information in wallet. If you are unsure about the information that is currently in the wallet, use dump_credentials.sh as indicated above.

```
save_credential.sh -a <alias> -u <user> -p <partition name>  –l <path of the
wallet file location where credentials are stored>
```

Example:

```
mspdv351:[1033_WLS]
/u00/webadmin/mock132_testing/rtil/rtil/application/retail-public-security-
api/bin> save_credential.sh -l wallet_test -a myalias -p mypartition -u myuser

============================================
Retail Public Security API Utility
============================================

Enter password:
Verify password:
```

> **Note:** `-p` in the above command is for partition name. You must specify the proper partition name used in application code for each Java application.
>
> save_credential.sh and dump_credentials.sh scripts are the same for all applications. If using save_credential.sh to add a wallet entry or to update a wallet entry, bounce the application/managed server so that your changes are visible to the application. Also, save a backup copy of your cwallet.sso file in a location outside of the deployment path, because redeployment or reinstallation of the application will wipe the wallet entries you made after installation of the application. To restore your wallet entries after a redeployment/reinstallation, copy the backed up cwallet.sso file over the cwallet.sso file. Then bounce the application/managed server.

Usage

```
============================================
Retail Public Security API Utility
============================================
usage: save_credential.sh -au[plh]
E.g. save_credential.sh -a rms-alias -u rms_user -p rib-rms -l ./
 -a,--userNameAlias <arg>             alias for which the credentials
needs to be stored
 -h,--help                            usage information
 -l,--locationofWalletDir <arg>       location where the wallet file is
created.If not specified, it creates the wallet under secure-credential-wallet
directory which is already present under the retail-public-security-api/
directory.
 -p,--appLevelKeyPartitionName <arg>   application level key partition name
 -u,--userName <arg>                  username to be stored in secure
credential wallet for specified alias*
```

How does the Wallet relate to the Application?

The ORACLE Retail Java applications have the wallet alias information you create in an <app-name>.properties file. Below is the reim.properties file. Note the database information and the user are presented as well. The property called datasource.credential.alias=RMS-ALIAS uses the ORACLE wallet with the argument of RMS-ALIAS at the csm.wallet.path and csm.wallet.partition.name = reim13 to retrieve the password for application use.

Reim.properties code sample:

```
datasource.url=jdbc:oracle:thin:@mspdv349.us.oracle.com:1521:pkols07
datasource.schema.owner=rms132mock
datasource.credential.alias=RMS-ALIAS
# =================================================================
# ossa related Configuration
#
# These settings are for ossa configuration to store credentials.
# =================================================================

csm.wallet.path=/u00/webadmin/product/10.3.3/WLS/user_projects/domains/132_mck_soa
_domain/retail/reim13/config
csm.wallet.partition.name=reim
```

How does the Wallet relate to java batch program use?

Some of the ORACLE Retail Java batch applications have an alias to use when running Java batch programs. For example, alias REIMBAT-ALIAS maps through the wallet to dbuser reimbat, already on the database. To run a ReIM batch program the format would be: reimbatchpgmname REIMBAT-ALIAS <other arguments as needed by the program in question>

Setting up RETL Wallets

RETL creates a wallet under $RFX_HOME/etc/security, with the following files:

- cwallet.sso
- jazn-data.xml
- jps-config.xml
- README.txt

To set up RETL wallets, perform the following steps:

1. Set the following environment variables:
   - `ORACLE_SID=<retaildb>`
   - `RFX_HOME=/u00/rfx/rfx-13.2.0`
   - `RFX_TMP=/u00/rfx/rfx-13.2.0/tmp`
   - `JAVA_HOME=/usr/jdk1.6.0_12.64bit`
   - `LD_LIBRARY_PATH=$ORACLE_HOME`
   - `PATH=$RFX_HOME/bin:$JAVA_HOME/bin:$PATH`
2. Change directory to `$RFX_HOME/bin`.
3. Run `setup-security-credential.sh`.
   - Enter 1 to add a new database credential.
   - Enter the dbuseralias. For example, `retl_java_rms01user`.
   - Enter the database user name. For example, `rms01user.`
   - Enter the database password.

- Re-enter the database password.
- Enter D to exit the setup script.

4. Update your RETL environment variable script to reflect the names of both the Oracle Networking wallet and the Java wallet.

   For example, to configure RETLforRPAS, modify the following entries in `$MMHOME/RETLforRPAS/rfx/etc/rmse_rpas_config.env.`

   - The RETL_WALLET_ALIAS should point to the Java wallet entry:

     ```
     export RETL_WALLET_ALIAS="retl_java_rms01user"
     ```

   - The ORACLE_WALLET_ALIAS should point to the Oracle network wallet entry:

     ```
     export ORACLE_WALLET_ALIAS="dvols29_rms01user"
     ```

   - The SQLPLUS_LOGON should use the ORACLE_WALLET_ALIAS:

     ```
     export SQLPLUS_LOGON="/@${ORACLE_WALLET_ALIAS}"
     ```

5. To change a password later, run `setup-security-credential.sh`.

   - Enter 2 to update a database credential.
   - Select the credential to update.
   - Enter the database user to update or change.
   - Enter the password of the database user.
   - Re-enter the password.

Quick Guide for Retail Wallets

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
RMS batch	DB	<RMS batch install dir (MMHOME)>/.wallet	n/a	<Database SID>_<Data base schema owner>	<rms schema owner>	Compile, execution	Installer	n/a	Alias hard-coded by installer
RMS forms	DB	<forms install dir>/base/.wallet	n/a	<Database SID>_<Data base schema owner>	<rms schema owner>	Compile	Installer	n/a	Alias hard-coded by installer
ARI forms	DB	<forms install dir>/base/.wallet	n/a	<Db_Ari01>	<ari schema owner>	Compile	Manual	ari-alias	
RMWS forms	DB	<forms install dir>/base/.wallet	n/a	<Database SID>_<Data base schema owner>	<rwms schema owner>	Compile forms, execute batch	Installer	n/a	Alias hard-coded by installer
RPM app	DB	<RPM batch install dir>/.wallet	n/a	<rms schema owner alias>	<rms schema owner>	Execute batch	Manual	rms-alias	
RWMS auto-login	JAVA	<forms install dir>/base/.javawallet							
			<RWMS Installation name>	<RWMS database user alias>	<RWMS schema owner>	RWMS forms app to avoid dblogin screen	Installer	rwms13inst	
			<RWMS Installation name>	BI_ALIAS	<BI Publisher administrative user>	RWMS forms app to connect to BI Publisher	Installer	n/a	Alias hard-coded by installer

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
AIP app	JAVA	<weblogic domain home>/retail/<deployed aip app name>/config							Each alias must be unique
			aip13	<AIP weblogic user alias>	<AIP weblogic user name>	App use	Installer	aip-weblogic-alias	
			aip13	<AIP database schema user alias>	<AIP database schema user name>	App use	Installer	aip01user-alias	
			aip13	<rib-aip weblogic user alias>	<rib-aip weblogic user name>	App use	Installer	rib-aip-weblogic-alias	
RPM app	JAVA	<weblogic domain home>/retail/<deployed rpm app name>/config							Each alias must be unique
			rpm13	<rpm weblogic user alias>	<rpm weblogic user name>	App use	Installer	rpm-weblogic-alias	
			rpm13	<rms shema user alias>	<rms shema user name>	App, batch use	Installer	rms01user-alias	
			rpm13	<rpm application user one alias>	<rpm application user one name>	App use	Installer	user1-alias	

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
			rpm13	<rpm application user two alias>	<rpm application user two name>	App use	Installer	user2-alias	
			rpm13	<rpm batch user alias>	<rpm batch user name>	App, batch use	Installer	rpmbatch-alias	
			rpm13	<rib-rpm weblogic user alias>	<rib-rpm weblogic user name>	App use	Installer	rib-rpm-weblogic-alias	
ReIM app	JAVA	<weblogic domain home>/retail/<deployed reim app name>/config							Each alias must be unique
			<installed app name>	<reim weblogic user alias>	<reim weblogic user name>	App use	Installer	weblogic-alias	
			<installed app name>	<rms shema user alias>	<rms shema user name>	App, batch use	Installer	rms01user-alias	
			<installed app name>	<reim webservice validation user alias>	<reim webservice validation user name>	App use	Installer	reimwebservice-alias	
			<installed app name>	<reim batch user alias>	<reim batch user name>	App, batch use	Installer	reimbatch-alias	
Alloc app	JAVA	<weblogic domain home>/retail/<deployed alloc app name>/config							Each alias must be unique

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
			<installed app name>	<alloc weblogic user alias>	<alloc weblogic user name>	App use	Installer	weblogic-alias	
			<installed app name>	<rms shema user alias>	<rms shema user name>	App use	Installer	rms01user-alias	
			<installed app name>	<rsl for rms weblogic user alias>	<rsl for rms weblogic user name>	App use	Installer	rsl-rms-weblogic-alias	
RSL app	JAVA	<RSL INSTALL DIR>/rsl-rms/security/config							Each alias must be unique
			rsl-rsm	<rsl weblogic user alias>	<rsl weblogic user name>	App use	Installer	weblogic-alias	
			rsl-rsm	<rms shema user alias>	<rms shema user name>	App use	Installer	rms01user-alias	
SIM app	JAVA	<weblogic domain home>/retail/<deployed sim app name>/config							
			rpm	<rpm weblogic user alias>	<rpm weblogic user name>	App use	Installer	rpm-weblogic-alias	
			rms	<rsl for rms weblogic user alias>	<rsl for rms weblogic user name>	App use	Installer	rsl-rms-weblogic-alias	
			rib-sim	<rib-sim weblogic user alias>	<rib-sim weblogic user name>	App use	Installer	rib-sim-weblogic-alias	

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
RETL	JAVA	<RETL home>/etc/security	n/a	<target application user alias>	<target application db userid>	App use	Manual	retl_java_rms01user	User may vary depending on RETL flow's target application
RETL	DB	<RETL home>/.wallet	n/a	<target application user alias>	<target application db userid>	App use	Manual	<db>_<user>	User may vary depending on RETL flow's target application
RIB	JAVA	<RIBHOME DIR>/deployment-home/conf/security							<app> is one of aip, rfm, rms, rpm, sim, rwms, tafr
JMS			jms<1-5>	<jms user alias> for jms<1-5>	<jms user name> for jms<1-5>	Integration use	Installer	jms-alias	
WebLogic			rib-<app>-app-server-instance	<rib-app weblogic user alias>	<rib-app weblogic user name>	Integration use	Installer	weblogic-alias	
Admin GUI			rib-<app>#web-app-user-alias	<rib-app admin gui user alias>	<rib-app admin gui user name>	Integration use	Installer	admin-gui-alias	
Application			rib-<app>#user-alias	<app weblogic user alias>	<app weblogic user name>	Integration use	Installer	app-user-alias	Valid only for aip, rpm, sim
DB			rib-<app>#app-db-user-alias	<rib-app database schema user alias>	<rib-app database schema user name>	Integration use	Installer	db-user-alias	Valid only for rfm, rms, rwms, tafr

Retail app	Wallet type	Wallet loc	Wallet partition	Alias name	User name	Use	Create by	Alias Example	Notes
Error Hospital			rib-<app>#hosp-user-alias	<rib-app error hospital database schema user alias>	<rib-app error hospital database schema user name>	Integration use	Installer	hosp-user-alias	

I

Appendix: Installation Order

This section provides a guideline as to the order in which the Oracle Retail applications should be installed. If a retailer has chosen to use some, but not all, of the applications the order is still valid less the applications not being installed.

> **Note:** The installation order is not meant to imply integration between products.

Enterprise Installation Order

1. Oracle Retail Merchandising System (RMS), Oracle Retail Trade Management (RTM), Oracle Retail Sales Audit (ReSA). Optional: Oracle Retail Fiscal Management (ORFM)

   > **Note:** ORFM is an optional application for RMS if you are implementing Brazil localization.

2. Oracle Retail Service Layer (RSL)
3. Oracle Retail Extract, Transform, Load (RETL)
4. Oracle Retail Active Retail Intelligence (ARI)
5. Oracle Retail Warehouse Management System (RWMS)
6. Oracle Retail Invoice Matching (ReIM)
7. Oracle Retail Price Management (RPM)

   > **Note:** During installation of RPM, you are asked for the RIBforRPM provider URL. Because RIB is installed after RPM, make a note of the URL you enter. To change the RIBforRPM provider URL after you install RIB, edit the remote_service_locator_info_ribserver.xml file.

8. Oracle Retail Allocation
9. Oracle Retail Central Office (ORCO)
10. Oracle Retail Returns Management (ORRM)
11. Oracle Retail Back Office (ORBO) or Back Office with Labels and Tags (ORLAT)
12. Oracle Retail Store Inventory Management (SIM)

    > **Note:** During installation of SIM, you are asked for the RIB provider URL. Because RIB is installed after SIM, make a note of the URL you enter. To change the RIB provider URL after you install RIB, edit the remote_service_locator_info_ribserver.xml file.

13. Oracle Retail Predictive Application Server (RPAS)
14. Oracle Retail Demand Forecasting (RDF)
15. Oracle Retail Category Management (CM)
16. Oracle Retail Replenishment Optimization (RO)
17. Oracle Retail Analytic Parameter Calculator Replenishment Optimization (APC RO)

18. Oracle Retail Regular Price Optimization (RPO)
19. Oracle Retail Merchandise Financial Planning (MFP)
20. Oracle Retail Size Profile Optimization (SPO)
21. Oracle Retail Assortment Planning (AP)
22. Oracle Retail Item Planning (IP)
23. Oracle Retail Item Planning Configured for COE (IP COE)
24. Oracle Retail Advanced Inventory Planning (AIP)
25. Oracle Retail Integration Bus (RIB)
26. Oracle Retail Point-of-Service (ORPOS)
27. Oracle Retail Markdown Optimization (MDO)
28. Oracle Retail Clearance Optimization Engine (COE)
29. Oracle Retail Analytic Parameter Calculator for Markdown Optimization (APC-MDO)
30. Oracle Retail Analytic Parameter Calculator for Regular Price Optimization (APC-RPO)
31. Oracle Retail Promotion Intelligence and Promotion Planning and Optimization (PI-PPO)
32. Oracle Retail Analytics
33. Oracle Retail Workspace (ORW)