

**Oracle® Retail Store Inventory Management**  
Installation Guide  
Release 13.2.4  
E28086-03

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# Send Us Your Comments

Oracle Retail Store Inventory Management Installation Guide, Release 13.2.4

Oracle welcomes customers' comments and suggestions on the quality and usefulness of this document.

Your feedback is important, and helps us to best meet your needs as a user of our products. For example:

- Are the implementation steps correct and complete?
- Did you understand the context of the procedures?
- Did you find any errors in the information?
- Does the structure of the information help you with your tasks?
- Do you need different information or graphics? If so, where, and in what format?
- Are the examples correct? Do you need more examples?

If you find any errors or have any other suggestions for improvement, then please tell us your name, the name of the company who has licensed our products, the title and part number of the documentation and the chapter, section, and page number (if available).

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**Note:** Before sending us your comments, you might like to check that you have the latest version of the document and if any concerns are already addressed. To do this, access the new Applications Release Online Documentation CD available on My Oracle Support and [www.oracle.com](http://www.oracle.com). It contains the most current Documentation Library plus all documents revised or released recently.

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Send your comments to us using the electronic mail address: [retail-doc\\_us@oracle.com](mailto:retail-doc_us@oracle.com)

Please give your name, address, electronic mail address, and telephone number (optional).

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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 13.2.4 documentation set:

- *Oracle Retail Store Inventory Management Release Notes*
- *Oracle Retail Store Inventory Management Data Model*
- *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.

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## 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](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

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# 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](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 13.2.4 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 13.2.4. 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	<p>OS certified with Oracle Database 11gR2 Enterprise Edition. Options are:</p> <ul style="list-style-type: none"> <li>▪ Oracle Linux 5 Update 5 for x86-64</li> <li>▪ Red Hat Enterprise Linux 5 Update (RHEL 5.5) for x86-64</li> <li>▪ IBM AIX 6.1 (actual hardware or LPARs)</li> <li>▪ Solaris 10 Sparc (actual hardware or Logical Domains)</li> <li>▪ HP-UX 11.31 Integrity (actual hardware, HPVM, or vPars)</li> </ul>
Database Server	<p>Oracle Database Enterprise Edition 11gR2 (11.2.0.2) with the following specifications:</p> <p><b>Components:</b></p> <ul style="list-style-type: none"> <li>▪ Oracle Partitioning</li> <li>▪ Examples CD (Formerly the companion CD)</li> </ul> <p><b>One-off Patches:</b></p> <ul style="list-style-type: none"> <li>▪ 10170431 – CTWR consumes a lot of CPU cycles.</li> </ul> <p>If ASM is used, apply the following patch to database home:</p> <ul style="list-style-type: none"> <li>▪ 11808931 – Merge request on top of 11.2.0.2.0 for defects 10410054 and 10422126.</li> </ul> <p><b>Other Components:</b></p> <ul style="list-style-type: none"> <li>▪ Perl compiler 5.0 or later</li> <li>▪ X-Windows interface</li> </ul>

## Check Supported Application Server Requirements

The SIM application can be deployed on either Oracle WebLogic 10.3.x or Oracle Application Server 10g 10.1.3.4.

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**Note:** If you are integrating with RMS 13.1.x products, then SIM 13.2.4 must be run on Oracle Application server (OAS).

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

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**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/utills/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/utills/ccr/lib](#) in Appendix: Common Installation Errors.

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Supported On	Versions Supported
Application Server OS	OS certified with Oracle Application Server 10g 10.1.3.4. Options are: <ul style="list-style-type: none"> <li>▪ Oracle Linux 5 Update 5 for x86-64</li> <li>▪ Red Hat Enterprise Linux 5 Update 5 (RHEL 5.5) for x86-64</li> <li>▪ IBM AIX 6.1 (actual hardware or LPARs)</li> <li>▪ Solaris 10 Sparc (actual hardware or Logical Domains)</li> <li>▪ HP-UX 11.31 Integrity (actual hardware or HPVM)</li> </ul>
Application Server	Oracle Application Server 10g 10.1.3.4 with the following patches: <ul style="list-style-type: none"> <li>▪ 4601861 - NEED TO EXPOSE NZOS_SETIOSEMANTICS - Sun</li> <li>▪ 5632264 - NEED UPDATED TIMEZONE FILES (VERSION 4) FOR MORE DST RULE CHANGES CORE - Generic Platform</li> <li>▪ 5649850 - IF STRONG VERIFIER, GETCONNECTION FAIL AFTER INVOKE SETCONNECTIONCACHEPROPERTIES - Generic Platform (patch to help with uppercase passwords)</li> </ul> Java: OC4J instance(s) running JDK 1.6.0+

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**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.

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

<b>Supported on:</b>	<b>Versions Supported:</b>
Application Server OS	OS certified with Oracle Fusion Middleware 11g Release 1 (11.1.1.4). Options are: <ul style="list-style-type: none"> <li>▪ Oracle Linux 5 Update 5 for x86-64 (Actual hardware or Oracle Virtual Machine)</li> <li>▪ Red Hat Enterprise Linux 5 Update 5 (RHEL 5.5) for x86-64 (Actual hardware or Oracle Virtual Machine)</li> <li>▪ IBM AIX 6.1 (actual hardware or LPARs)</li> <li>▪ Solaris 10 Sparc (actual hardware or Logical Domains)</li> <li>▪ HP-UX 11.31 Integrity (actual hardware or HPVM)</li> </ul>
Application Server	Oracle Fusion Middleware 11g Release 1 (11.1.1.4) <b>Components:</b> <ul style="list-style-type: none"> <li>▪ Oracle WebLogic Server 11g Release 1 (10.3.4)</li> <li>▪ Java: JDK 1.6.0+ 64 bit or Jrockit 1.6R28 build or later, within the 1.6 code line. 64 bit. For Linux and Solaris OS only.</li> </ul> <p><b>IMPORTANT:</b> If there is an existing WebLogic 10.3.3 installation on the server, you must upgrade WebLogic 10.3.3 to WebLogic 10.3.4. All middleware components associated with WebLogic server 10.3.3 should be upgraded to 11.1.1.4.</p> <p>Back up the weblogic.policy file (\$WLS_HOME/wlserver_10.3/server/lib) before upgrading your WebLogic server, because this file could be overwritten. Copy over the weblogic.policy backup file after the WebLogic upgrade is finished and the post patching installation steps are completed.</p> <p>For information on how to complete the upgrade to WebLogic 10.3.4, see the My Oracle Support document, "How to Upgrade from WebLogic11g 10.3.3 to WebLogic11g 10.3.4" (ID 1432575.1).</p> <p><b>Other components:</b></p> <ul style="list-style-type: none"> <li>▪ Oracle BI Publisher 10g (10.1.3.4)</li> </ul> <p><b>Optional (SSO required)</b></p> <ul style="list-style-type: none"> <li>▪ Oracle Internet Directory 10g (10.1.4) or Oracle Internet Directory 11g (11.1.1.5) Must have separate WebLogic 10.3.5 for OID 11g.</li> <li>▪ Oracle WebTier 11g (11.1.1.4)</li> </ul>

## 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 version 10.1.4 or Oracle Infrastructure Server 11g version 11.1.1.5 has been installed. Verify the OAS HTTP server or Oracle WebTier for the 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
- Oracle Infrastructure Server 11g version 11.1.1.5

## 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 or Windows 7
Display resolution	1024x768 or higher
Processor	1GHz or higher
Memory	512MBytes or higher
Oracle (Sun) Java Runtime Environment	Java 1.6.0_22+
Browser	Microsoft Internet Explorer 8 or Mozilla Firefox 3.6.x The browser is used to launch the Java WebStart client.

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**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.

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## 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) 13.2.4 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.

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

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- Retail Merchandising System (RMS) 13.2.4 – Optional
- Oracle Retail Price Management 13.2.4 – Optional
- Oracle Retail POS Suite 13.4 – 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.

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**Note:** SIM 13.2.4 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.

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## 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.”

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

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## SIM Installation Overview

The following basic steps are required to install and set up SIM for the first time.

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 3 of the *Oracle Retail Store Inventory Management Implementation Guide, Volume 1* for instructions.
4. Install the SIM application.
5. Run data-seeding from RMS.

## Customer Profiles

SIM 13.2.4 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 13.2.4 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 13.2.4 and have Oracle Retail Merchandising 13.2 applications OR ORPOS 13.4 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 13.2.4, 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 10.3.4 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 10.3.4 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

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## 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 13.2.3 to 13.2.4. If you are currently using a version of SIM prior to 13.2.3 that you want to upgrade to 13.2.4, you must first upgrade to 13.2.3. Refer to the *Oracle Retail Store Inventory Management Installation Guide* for 13.2.3 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 90 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 13.2.3 to version 13.2.4.

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`

---

---

# Application Installation

This chapter explains application installation.

## Application Server Deployment Options

SIM 13.2.4 supports two different application servers for deployment:

- Oracle WebLogic Server 11g Release 1 (10.3.4)
- 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) 13.2.4
  - Oracle Retail Point-of-Service 13.4
- 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.

See the My Oracle Support document, *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>
  </module-data>
</process-type>
```

---

---

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.
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 (if Java 6) or your Java 6 installation.
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 instances that you install SIM to are currently running. See the section, "[Create a New OC4J Instance and Group for SIM](#)," for how to start the oc4j instances.
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.

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**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.

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**Note:** See [Appendix: Common Installation Errors](#) for details on common installation errors.

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## 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.

---

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**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 unauthenticated 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.

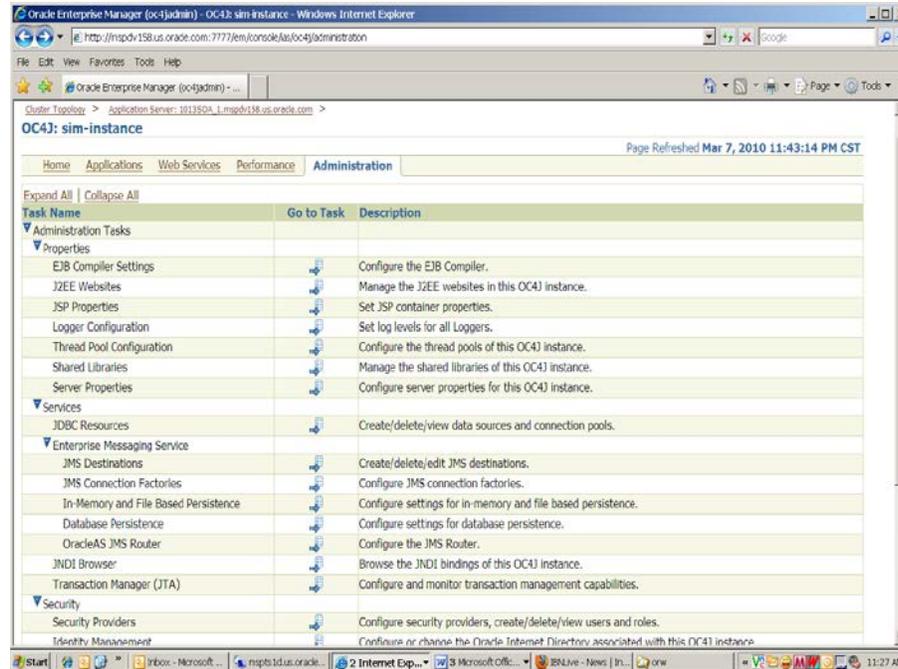
The batch location is assumed to be located on the same server as the application server. If you copy the batch to a location on a different server, then you need to configure the file path to the `sim-batch.log` file, which is defined in `batch/resources/log4j.xml`.

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

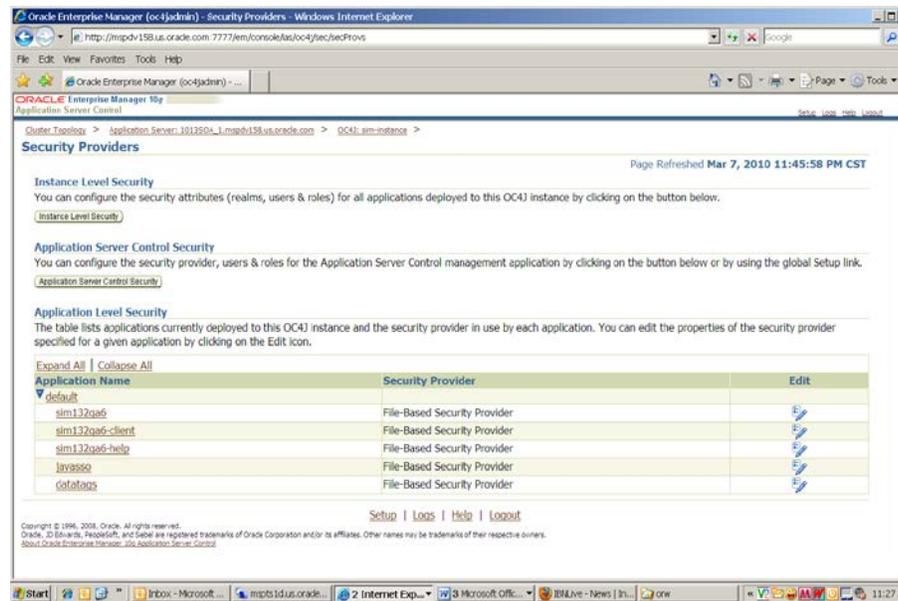
## Adding Users to Application Server for Web Services

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

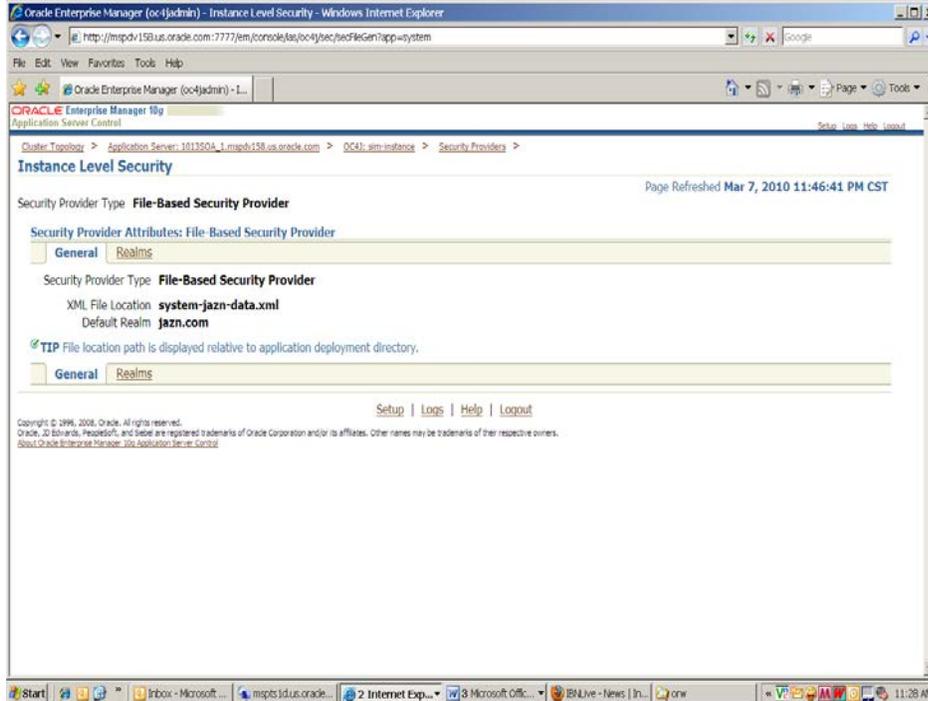
1. Go to the Enterprise Manager console for the Application Server where you installed SIM.
2. Click the SIM instance where you installed the application.
3. Click the Administration link.
4. Click the **Security Provider** task icon in the Security category.



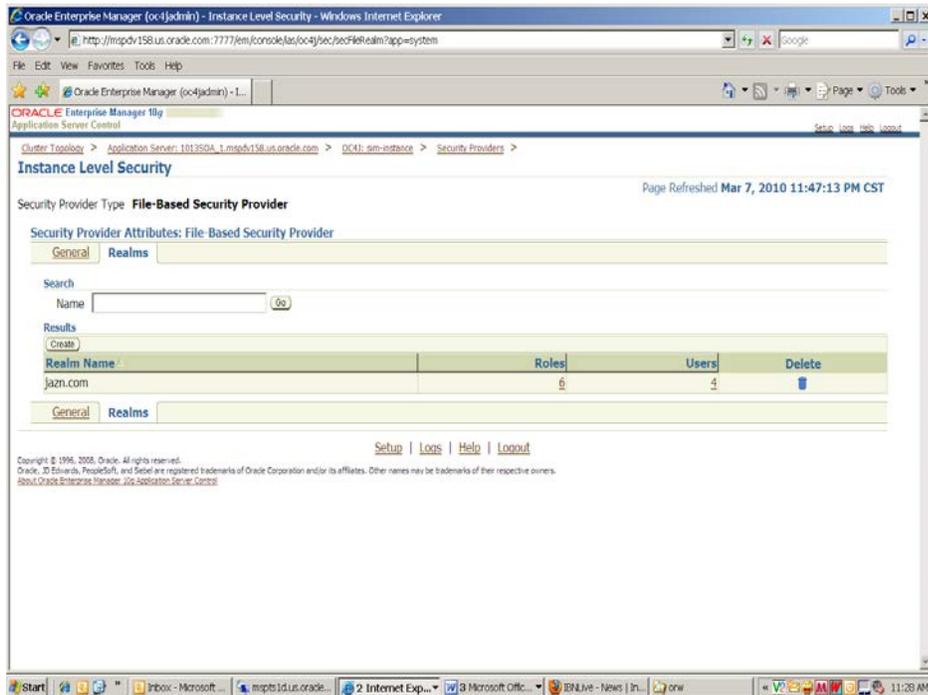
**5. Click Instance Level Security.**



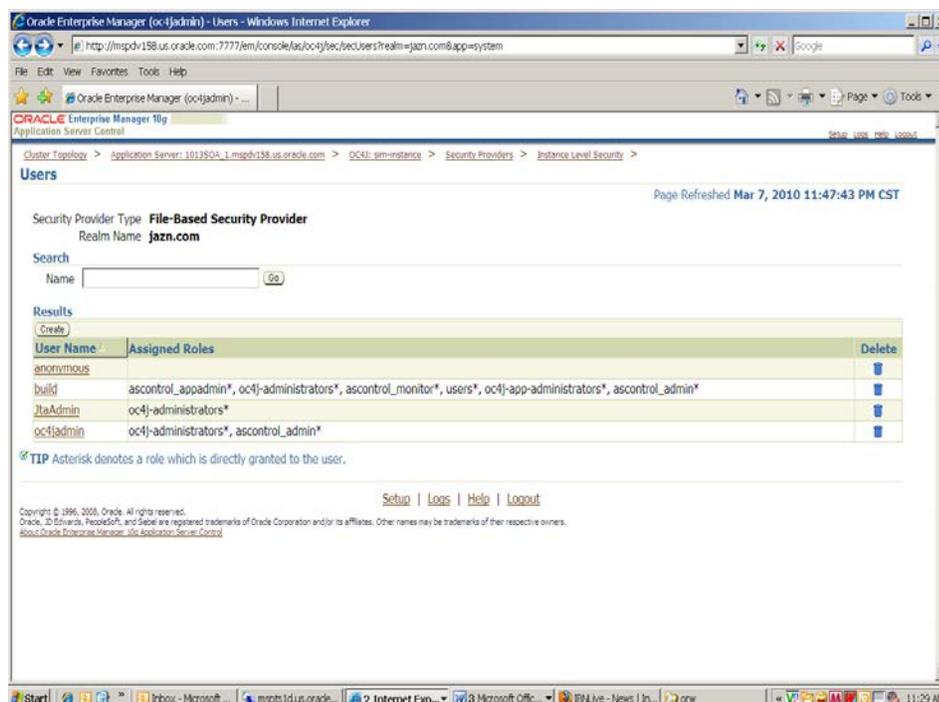
**6. Click Realms.**



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



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



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

To use handheld wireless devices with SIM, the Wavelink server must be running.

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---

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

---

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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>/<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.

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**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.

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

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## Installing the SIM Application on WebLogic

Before proceeding, you must install Oracle WebLogic Server 11g Release 1 (10.3.4) 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.

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**IMPORTANT:** If there is an existing WebLogic 10.3.3 installation on the server, you must upgrade WebLogic 10.3.3 to WebLogic 10.3.4. All middleware components associated with WebLogic server 10.3.3 should be upgraded to 11.1.1.4.

Back up the `weblogic.policy` file (`$WLS_HOME/wlserver_10.3/server/lib`) before upgrading your WebLogic server, because this file could be overwritten. Copy over the `weblogic.policy` backup file after the WebLogic upgrade is finished and the post patching installation steps are completed.

For information on how to complete the upgrade to WebLogic 10.3.4, see the My Oracle Support document, "How to Upgrade from WebLogic11g 10.3.3 to WebLogic11g 10.3.4" (ID 1432575.1).

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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

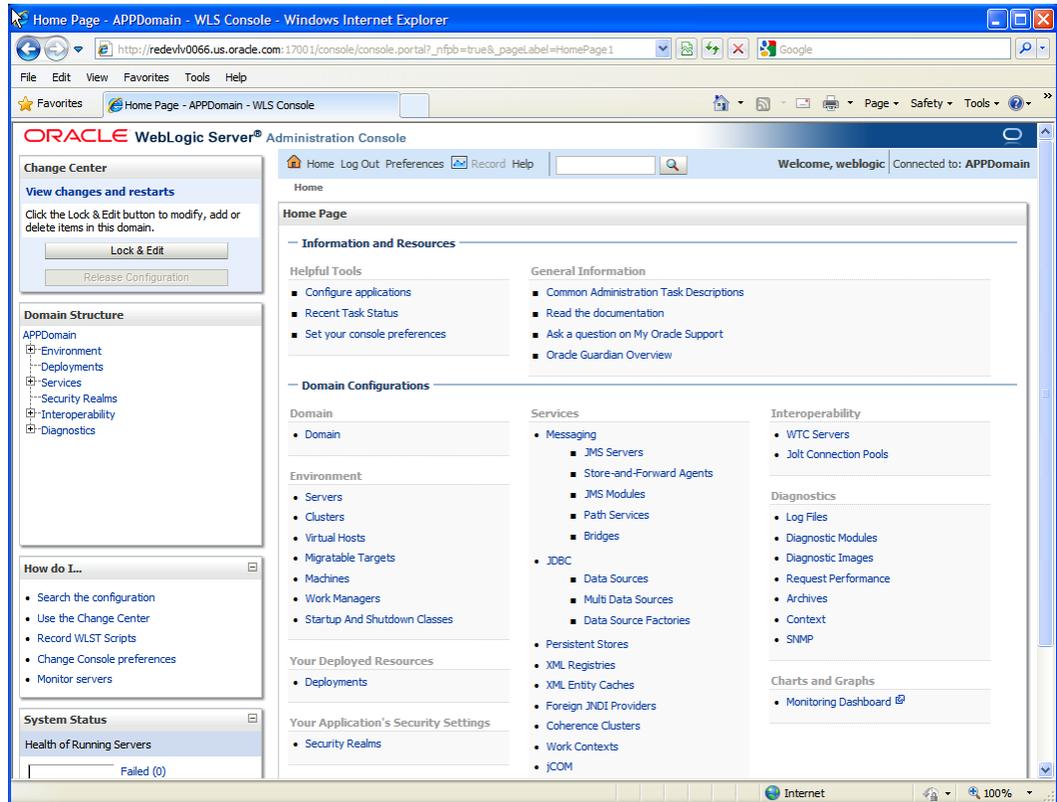
<http://www.oracle.com/technology/documentation/ocm.html>

## 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.

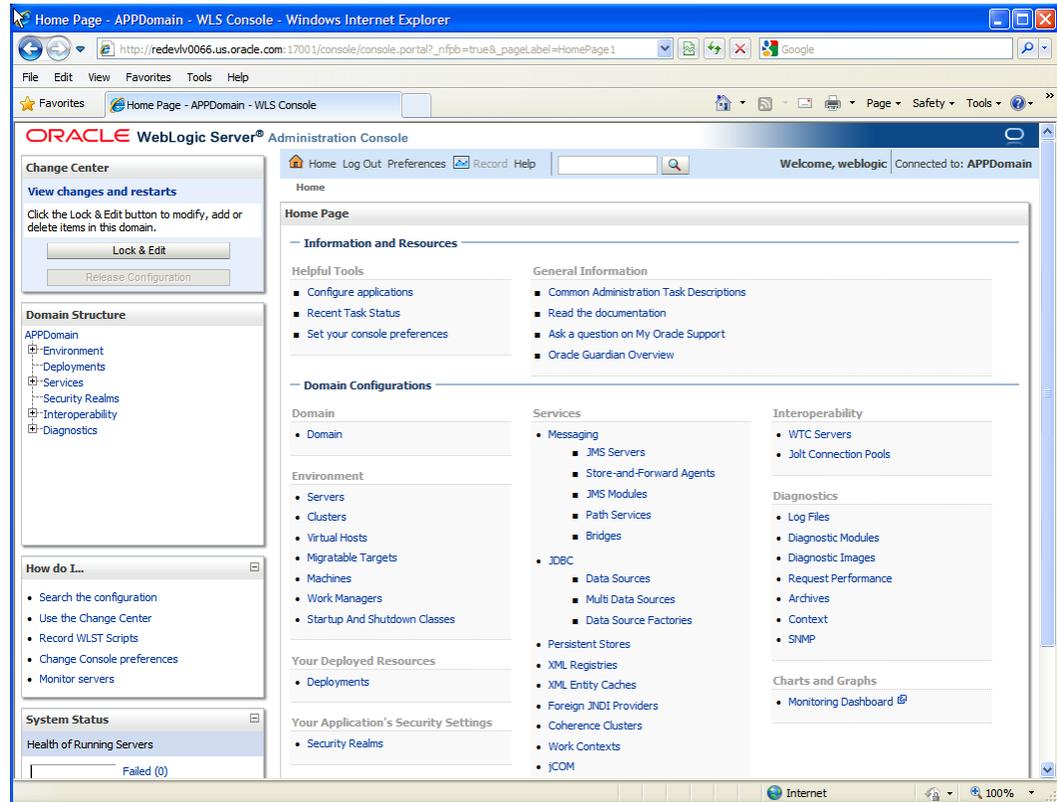
**Note:** If integrating SIM with RSL, having SIM and RSL servers configured in the same domain is recommended. If the RSL server is installed in a different domain, you must set up a “trusted relationship” between the two WebLogic domains for RMI calls.

### 1. Log in to the admin console



### 2. Click Lock & Edit.

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

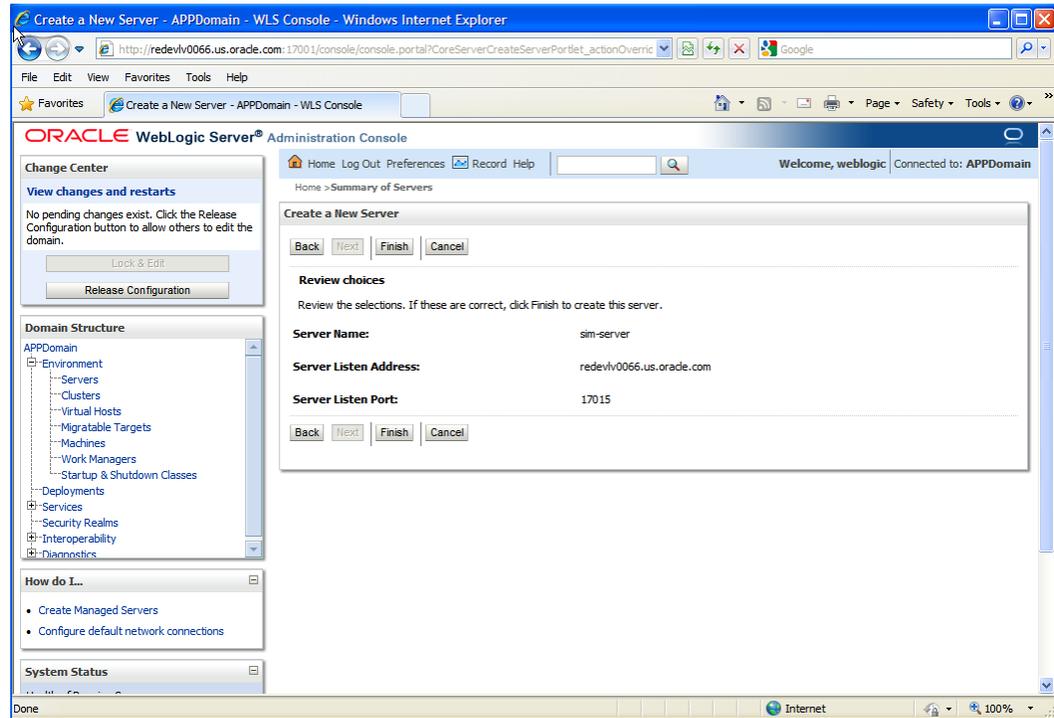


### 4. Set the following variables:

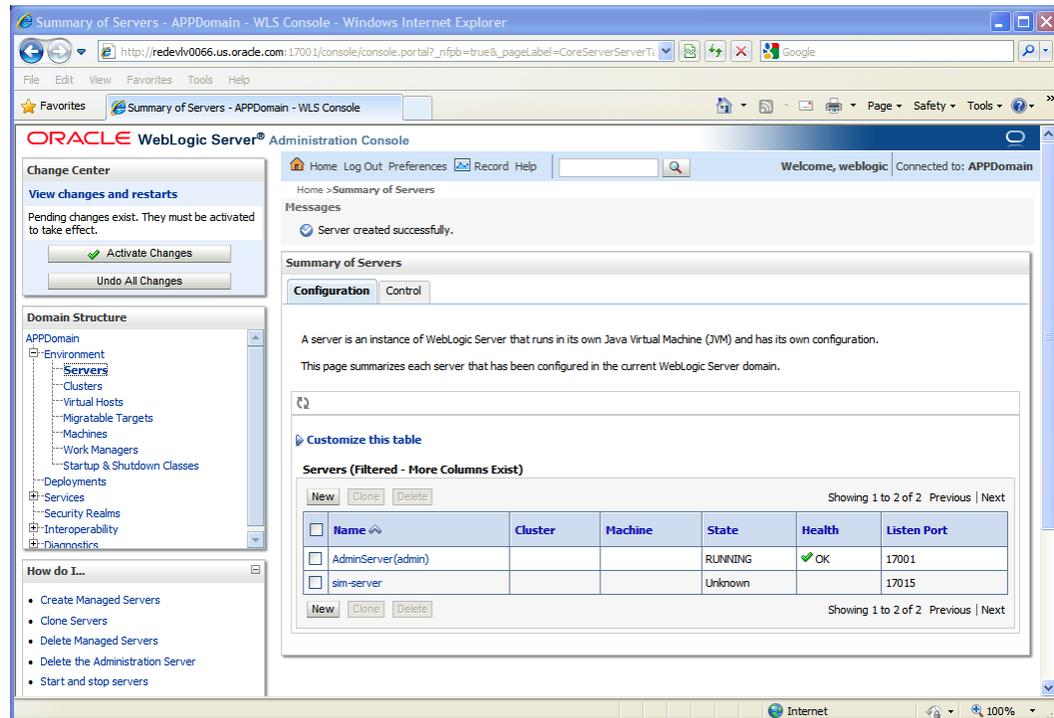
- **Server Name:** These should be some name specific to your application targeted  
**Example:** sim-server
- **Server Listen Address:** <weblogic server> (for example, redevlv0065.us.oracle.com).
- **Server Listen Port:** A free port; you should check for availability.

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).

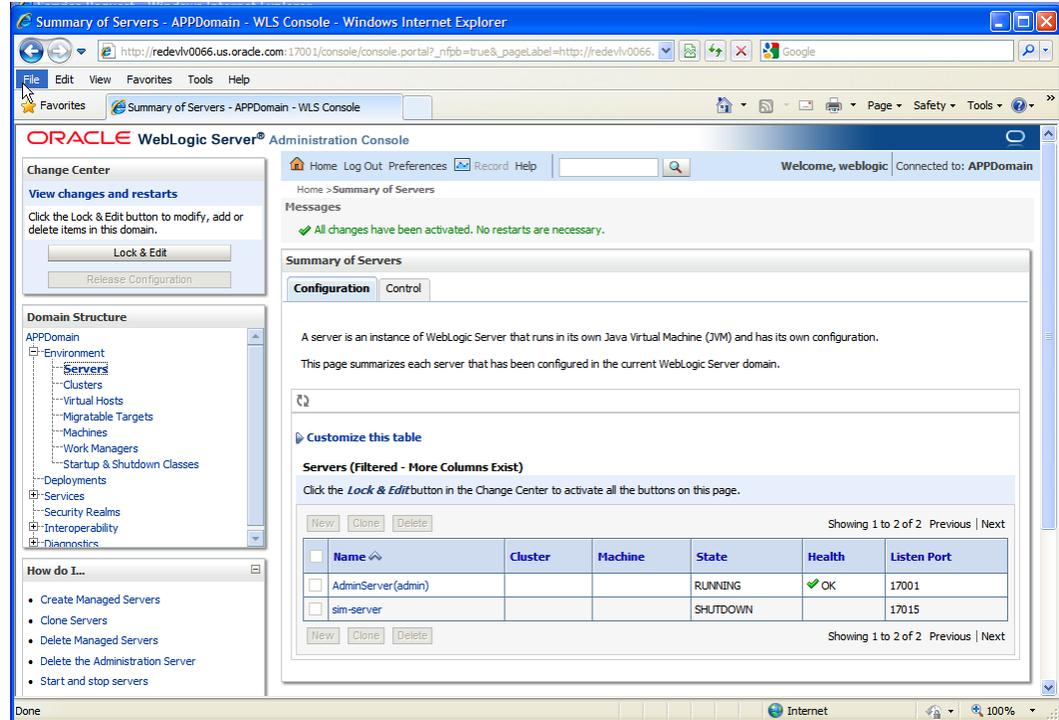
5. Click Next.



6. Click Finish.



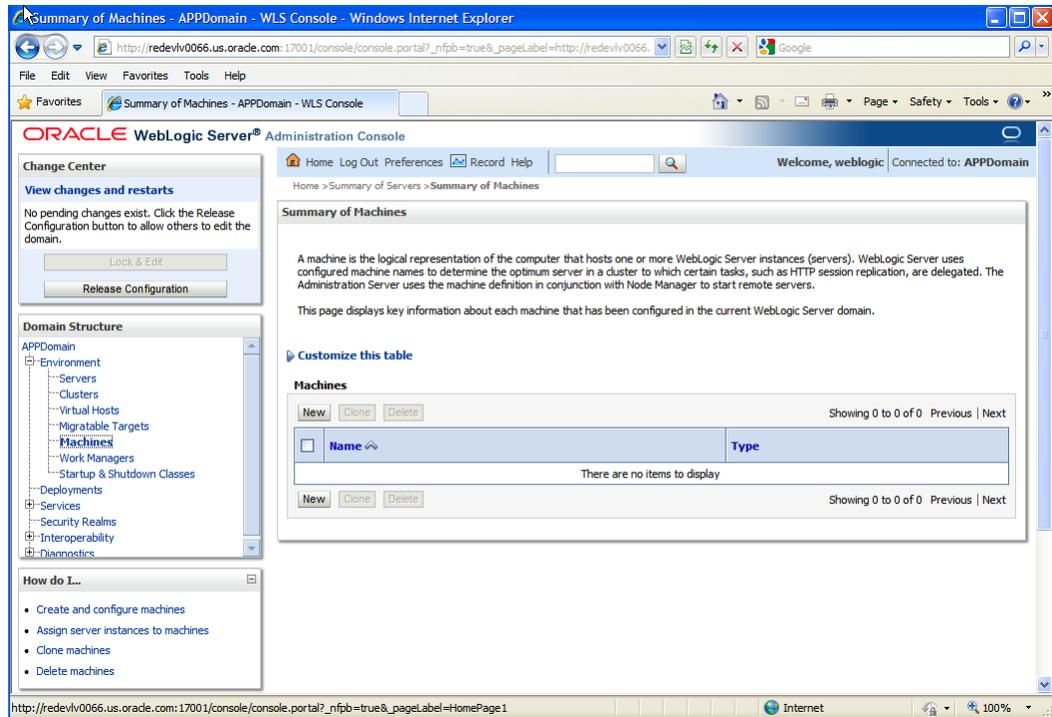
7. Click Activate Changes on the left hand side.



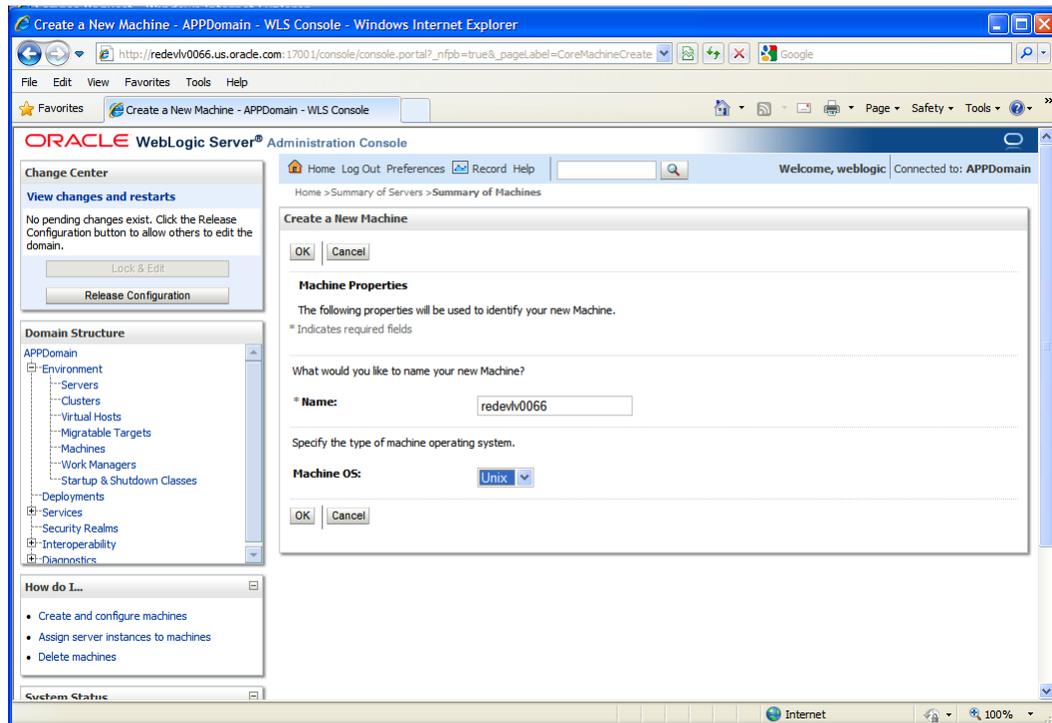
## Install NodeManager

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.



3. Click New.



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

6. Click on the machine created below.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The browser address bar indicates the URL: [http://redevlv0066.us.oracle.com:17001/console/console.portal?\\_nfpb=true&\\_pageLabel=CoreMachineMachin](http://redevlv0066.us.oracle.com:17001/console/console.portal?_nfpb=true&_pageLabel=CoreMachineMachin). The page title is "Summary of Machines - APPDomain - WLS Console".

The interface includes a "Change Center" on the left with a message: "Pending changes exist. They must be activated to take effect." Below this are buttons for "Activate Changes" and "Undo All Changes".

The "Domain Structure" tree on the left shows the following hierarchy:

- APPDomain
  - Environment
    - Servers
    - Clusters
    - Virtual Hosts
    - Migratable Targets
    - Machines**
    - Work Managers
    - Startup & Shutdown Classes
  - Deployments
  - Services
  - Security Realms
  - Interoperability
  - Diagnostics

The "How do I..." section on the left provides a list of actions:

- Create and configure machines
- Assign server instances to machines
- Clone machines
- Delete machines

The main content area shows a "Messages" section with a success message: "Machine created successfully". Below this is the "Summary of Machines" section, which includes a description of a machine and a table of machines.

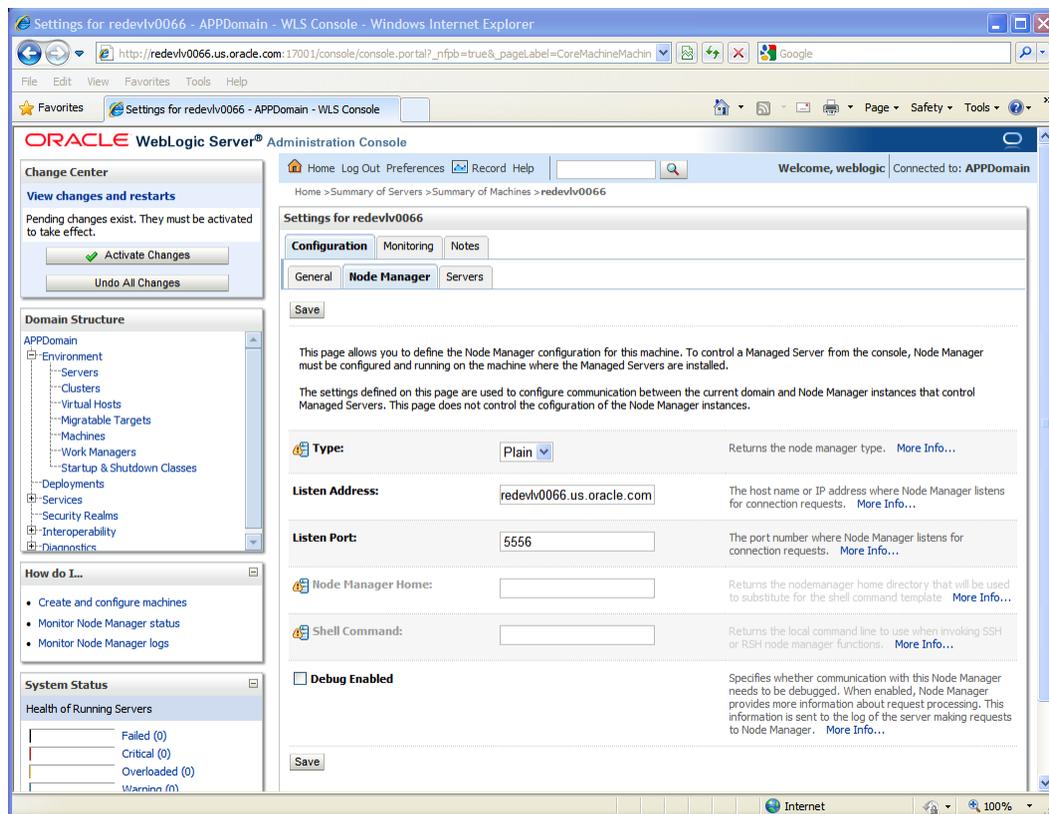
The "Machines" table is as follows:

Name	Type
redevlv0066	UnixMachine

The table includes "New", "Clone", and "Delete" buttons above and below it. The status "Showing 1 to 1 of 1 Previous | Next" is displayed on both sides of the table.

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)



## 8. Click Save.

The screenshot shows the Oracle WebLogic Server Administration Console interface. The browser address bar indicates the URL: `http://redevlv0066.us.oracle.com:17001/console/console.portal?_nfpb=true&_pageLabel=CoreMachineMachin`. The page title is "Settings for redevlv0066 - APPDomain - WLS Console".

On the left side, there is a "Change Center" section with a message: "Pending changes exist. They must be activated to take effect." Below this are buttons for "Activate Changes" and "Undo All Changes".

The "Domain Structure" tree on the left shows the hierarchy: APPDomain > Environment > Servers > redevlv0066.

The main content area is titled "Settings for redevlv0066" and has tabs for "Configuration", "Monitoring", and "Notes". Under the "Configuration" tab, there are sub-tabs for "General", "Node Manager", and "Servers". The "Node Manager" sub-tab is active.

At the top of the configuration section, there is a "Save" button. Below it, a message states: "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 configuration of the Node Manager instances."

The configuration fields include:

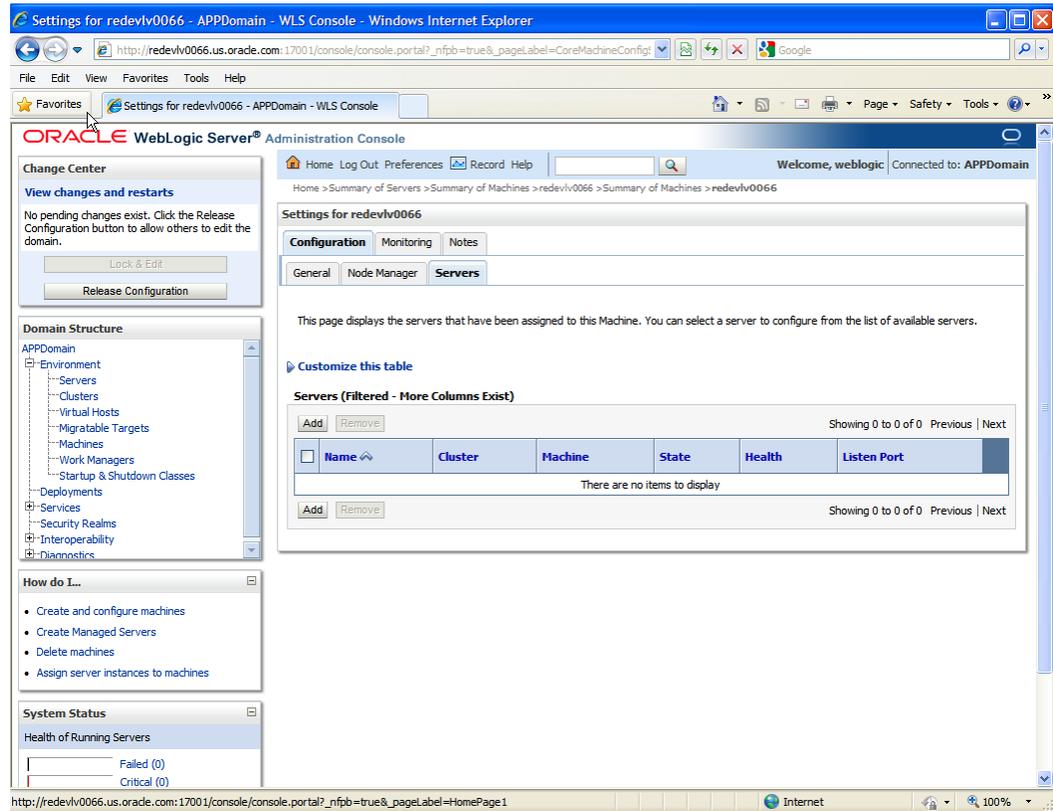
- Type:** Plain (dropdown menu)
- Listen Address:** redevlv0066.us.oracle.com
- Listen Port:** 5556
- Node Manager Home:** (empty text field)
- Shell Command:** (empty text field)
- Debug Enabled:** (checkbox, currently unchecked)

Each field has a "More Info..." link. The "System Status" section at the bottom left shows the health of running servers: Failed (0), Critical (0), Overloaded (0), and Warning (0).

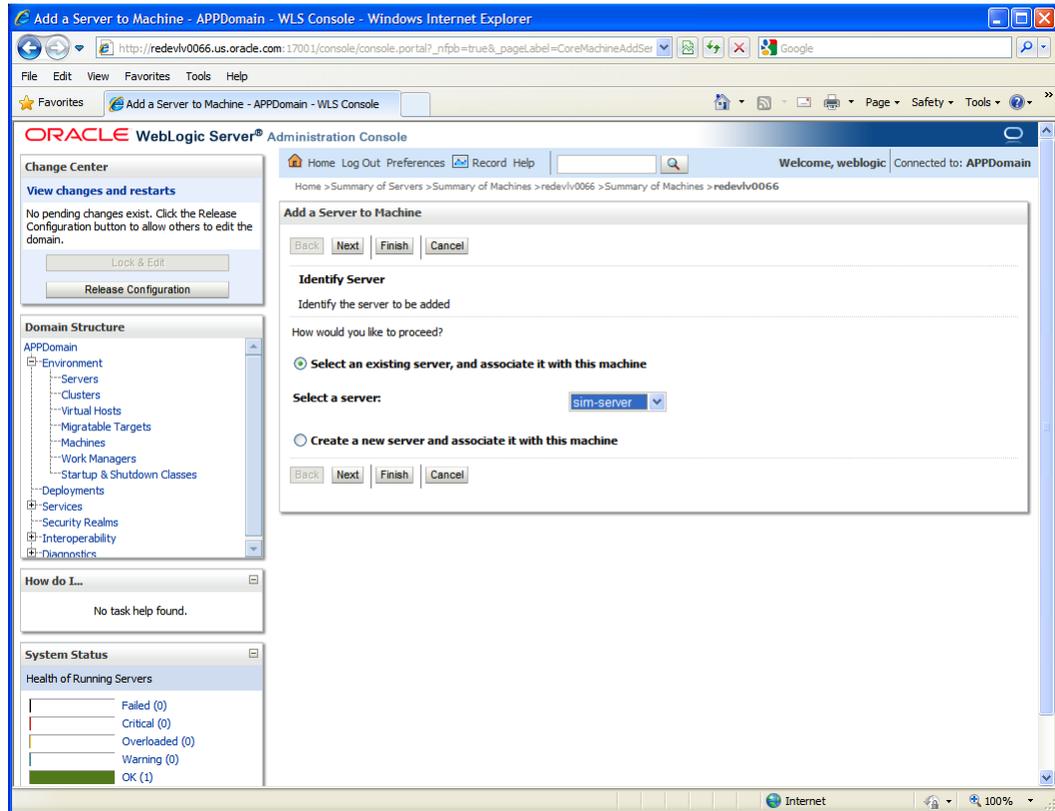
## 9. Click Activate Changes.

## 10. Click Lock &amp; Edit.

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



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



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.x_RIB/WLS_64/user_projects/do  
mains/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. Edit the nodemanager.properties file at the following location with the below values:  
\$WLS\_HOME/wlserver\_10.3/common/nodemanager/nodemanager.properties
  - SecureListener=false
  - StartScriptEnabled=true
  - StartScriptName=startWebLogic.sh.
20. After making changes to the nodemanager.properties file, NodeManager must be restarted.

---

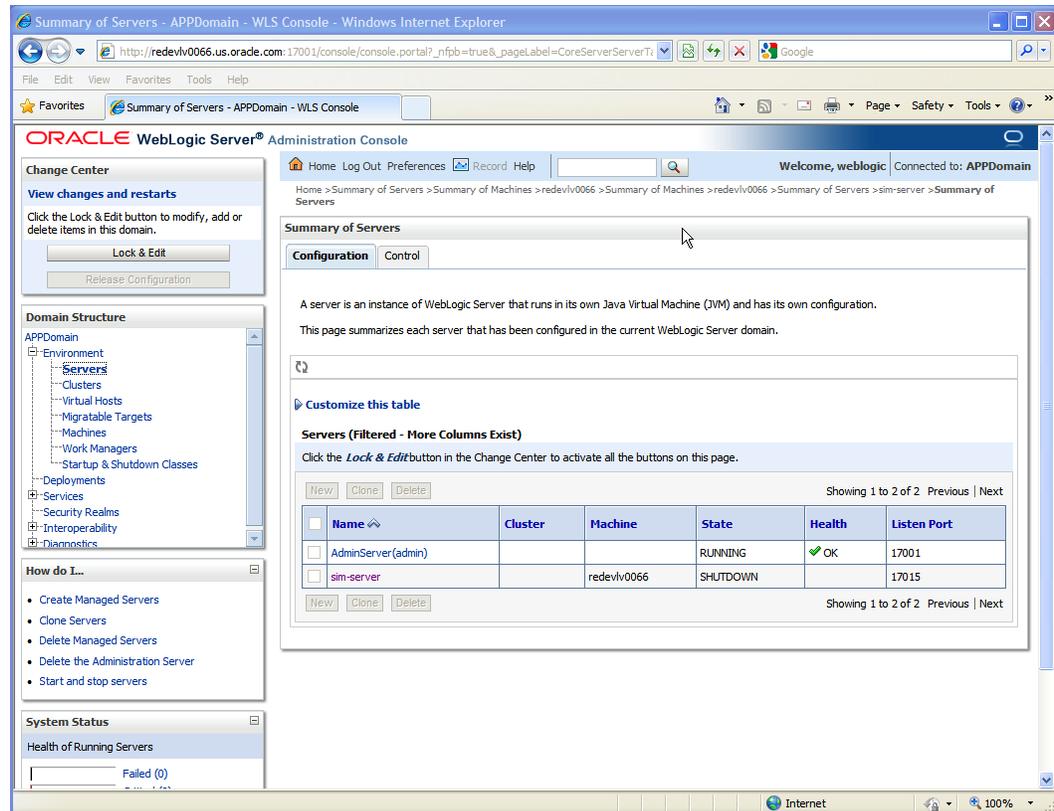
**Note:** The nodemanager.properties file is created after NodeManager is started for the first time. It is not available before that point.

---

## 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.



2. Export  
`WEBLOGIC_DOMAIN_HOME=<WLS_HOME>/user_projects/domains/<domain name>`
3. 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 SIM 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/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";
};

```

An example of the full entry that might be entered is:

```

grant codeBase
"file:/u00/webadmin/product/10.3.x/WLS/user_projects/domains/APPDomain/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.x/WLS/user_projects/domains/APPDomain/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";
};

```

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

The screenshot shows the Oracle WebLogic Server Administration Console interface. The left sidebar contains a 'Domain Structure' tree with 'Environment' expanded to show 'Servers'. The main content area is titled 'Summary of Servers' and has a 'Control' tab selected. Below the tab, there is a table of servers. The 'sim-server' is selected, and the 'Start' button is highlighted. The table has columns for 'Server', 'Machine', 'State', and 'Status of Last Action'.

Server	Machine	State	Status of Last Action
AdminServer (admin)		RUNNING	None
sim-server	redelw0066	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 unauthenticated 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

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

The screenshot shows the Oracle WebLogic Administration Console. On the left, the **Domain Structure** window is expanded to **Deployments**. Below it, the **How do I...** section lists tasks like installing and configuring applications. The **System Status** section shows the health of running servers, with 8 servers in an OK state. The main area displays a table of **Deployments** for the domain `oracle.retail.sim.webservice.SIMPortTypeImpl`.

Name	State	Health	Type	Deployment Order
ap13	Active	OK	Enterprise Application	100
ap13-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	

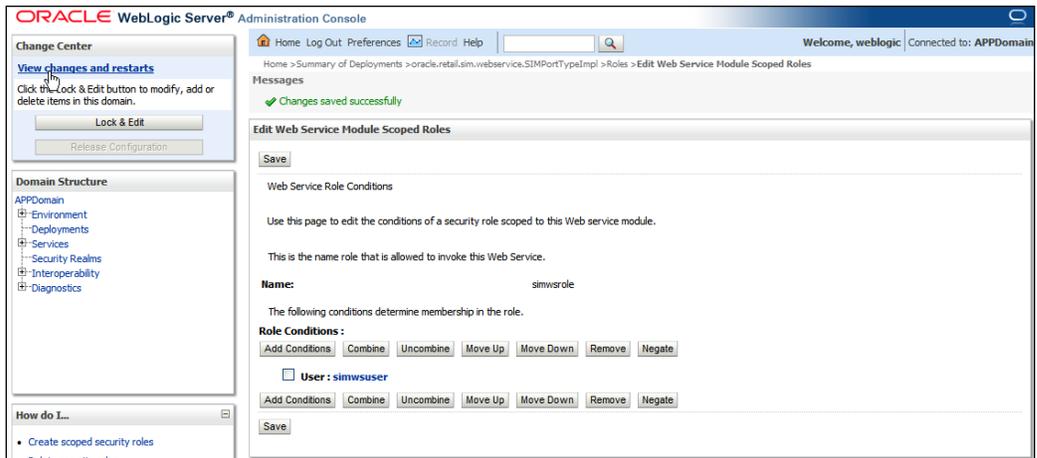
- Click the Web Service link. Select Security tab. Select Roles tab.
- In the Roles tab, click **New**.
- Enter the role name in the **Name** field (for example, simwsrole). Leave the **Provider Name** as the default.
- Click **OK**. The newly created role is now listed.

The screenshot shows the Oracle WebLogic Administration Console with the **Roles** configuration page for the web service module. The **Security** tab is selected, and the **Roles** sub-tab is active. A table lists the **Web Service Module Scoped Roles**.

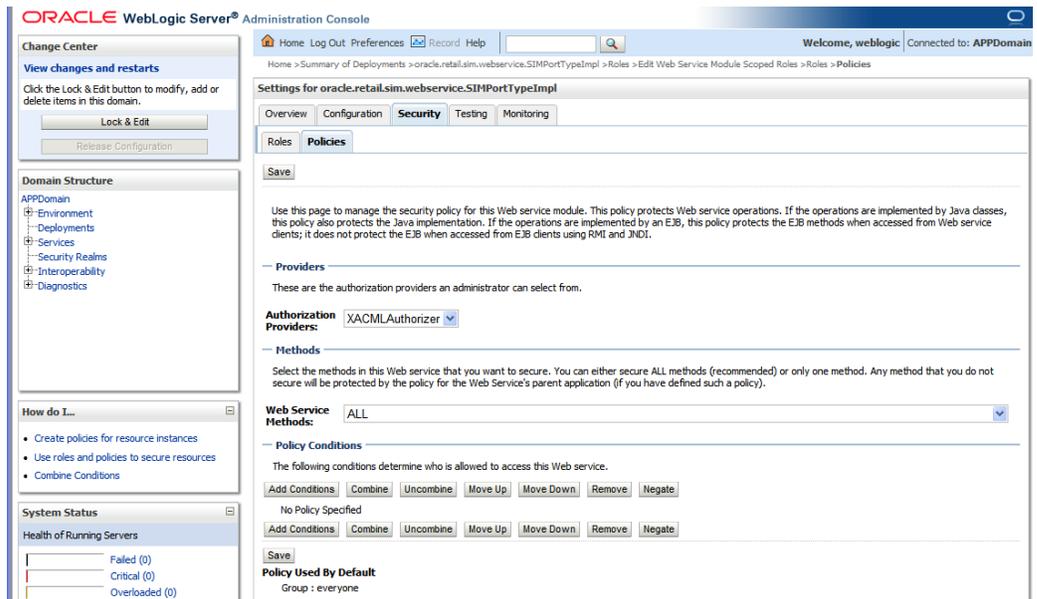
Name	Provider Name
simwsrole	XACMLRoleMapper

- Associate the user to the role. Click the newly created role.
- Click **Add Conditions**.
- Select **User** in the **Predicate List** drop-down and click **Next**.
- Enter the user name that was created in the security realm (for example, simwsuser) and click **Add**. It will get added to the list below the text box.
- Click **Finish**.

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



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



18. Click **Add Conditions**.

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

The screenshot shows the Oracle WebLogic Server Administration Console. The main content area displays the 'Settings for oracle.retail.sim.webservice.SIMPortTypeImpl' page. The 'Roles' tab is selected, and the 'Role' dropdown is set to 'smiwsrole'. The 'Override Policy' section shows 'Group: everyone'. The left sidebar contains navigation options like 'Change Center', 'Domain Structure', 'How do I...', and 'System Status'.

20. Enter the role name that was created earlier (for example, simwsrole). Click **Add**. The role is added to the list below the text box.

21. Click **Finish**.

22. Click **Save**.

This screenshot is identical to the one above, showing the 'Settings for oracle.retail.sim.webservice.SIMPortTypeImpl' page with the 'Roles' tab selected and the 'Role' dropdown set to 'smiwsrole'. The 'Override Policy' section shows '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: 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 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:** Even if you use the AdminServer to restart SIM, you will still need to restart the Wavelink server manually.

---

---

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

The following is an example for stopping and starting the Wavelink server:

```
# cd /u00/webadmin/product/10.3.x/WLS/user_projects/domains/APPDomain/  
/wireless/bin  
# ./wavelink-shutdown.sh  
# ./wavelink-startup.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.

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

---

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**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.

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---

## 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](http://redevlv0066.us.oracle.com:17015/sim-client/launch?template=sim_jnlp_template.vm)

---

---

## 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

**Application Server Details**

Hostname

The OPMN request port is found in ORACLE\_HOME/opmn/conf/opmn.xml

OPMN request port

OC4J Admin User

OC4J Admin Password

Cancel Back Next Install

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

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

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

<b>Field Title</b>	OC4J Admin Password
<b>Field Description</b>	The password of the OC4J Admin User
<b>Destination</b>	jndi.cfg, JnlpLaunch.properties
<b>Notes</b>	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:

OC4J Instance Name:

Application Deployment Name:

Client EAR Deployment Name:

Buttons: Cancel, Back, Next, Install

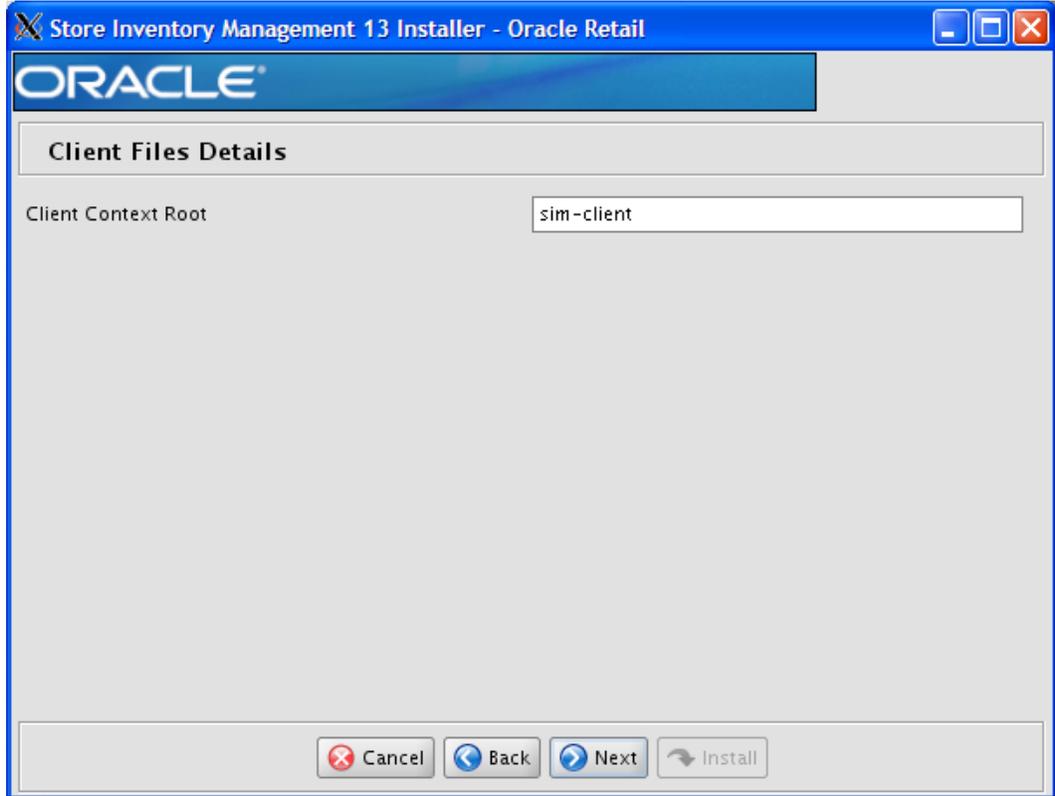
<b>Field Title</b>	OC4J Group Name
<b>Field Description</b>	Name of the OC4J group that was created for this SIM application. The OC4J instance given in the OC4J Instance Name field should be a member of this group. The installer deploys the SIM application to all OC4J instances which are members of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

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

<b>Field Title</b>	Application Deployment Name
<b>Field Description</b>	The name that will be used by the application server to identify the SIM application
<b>Example</b>	sim13
<b>Notes</b>	Used by installer scripts to deploy the application and to create default values for JNDI provider URL

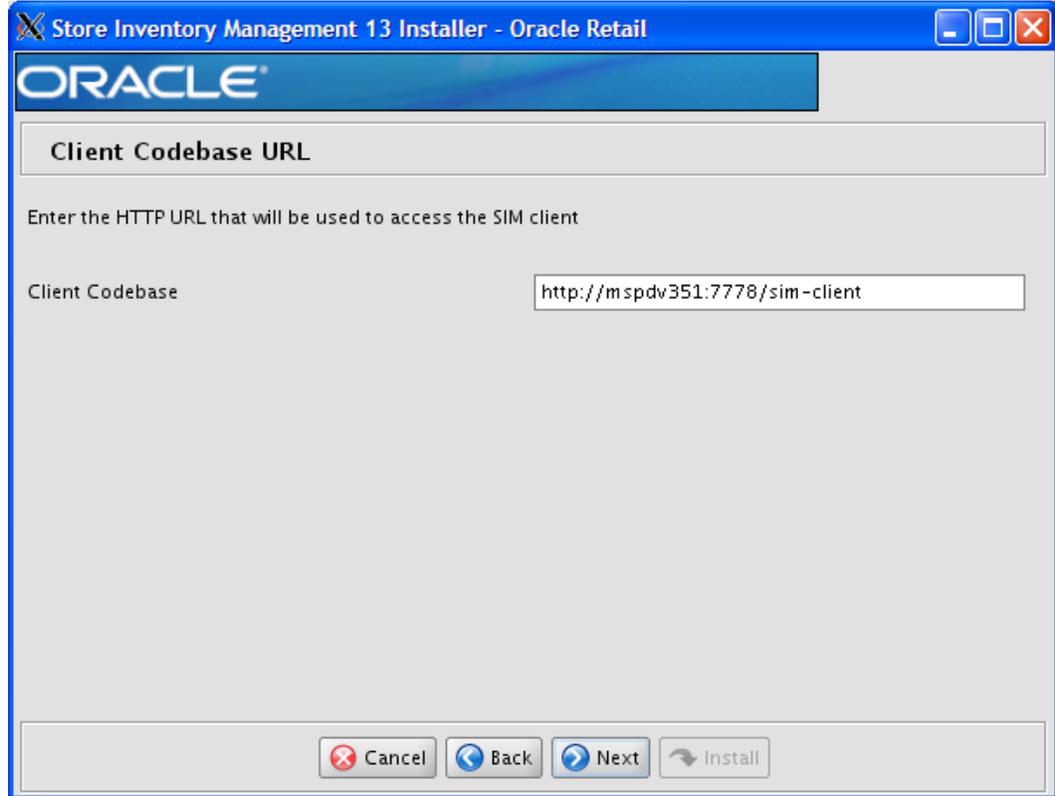
<b>Field Title</b>	Client EAR Deployment Name
<b>Field Description</b>	The name that will be used by the application server to deploy the sim-client.ear file.
<b>Example</b>	sim-client

**Screen: Client Files Details**



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

**Screen: Client Codebase URL**



<b>Field Title</b>	Client Codebase
<b>Field Description</b>	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.
<b>Destination</b>	JNLPLaunch.properties, sim_config.jnlp, client.cfg
<b>Example</b>	http://myhost:7777/sim-client
<b>Notes</b>	The Client Codebase URL must match the Client Context Root from the previous screen.

## Screen: Web Module Details

Store Inventory Management 13 Installer - Oracle Retail

ORACLE®

**Web Module Details**

Context Root

Web Services Context Root

Cancel Back Next Install

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

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

Buttons: Cancel, Back, Next, Install

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

<b>Field Title</b>	RPM Request Port
<b>Field Description</b>	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"/>
<b>Destination</b>	jndi_providers.xml
<b>Example</b>	6003
<b>Notes</b>	Used only if integrating SIM with RPM

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

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

**Screen: RSLforRMS Details**

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

<b>Field Title</b>	RSLforRMS Request Port
<b>Field Description</b>	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"/>
<b>Destination</b>	jndi_providers.xml
<b>Example</b>	6003
<b>Notes</b>	Used only if integrating SIM with RSLforRMS

<b>Field Title</b>	RSLforRMS OC4J Instance Name
<b>Field Description</b>	The name of the OC4J instance where the RSLforRMS application is installed
<b>Destination</b>	jndi_providers.xml
<b>Example</b>	rsl-rms-o4j-instance
<b>Notes</b>	Used only if integrating SIM with RSLforRMS

<b>Field Title</b>	RSLforRMS Application Name
<b>Field Description</b>	The name that will be used by the application server to identify the RSLforRMS application
<b>Destination</b>	jndi_providers.xml
<b>Example</b>	rsl-rsm
<b>Notes</b>	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	

Buttons: Cancel, Back, Next, Install

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

<b>Field Title</b>	RIBforSIM Request Port
<b>Field Description</b>	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"/>
<b>Destination</b>	jndi_providers_ribclient.xml
<b>Example</b>	6003
<b>Notes</b>	Used only if integrating SIM with RIBforSIM

<b>Field Title</b>	RIBforSIM OC4J Instance Name
<b>Field Description</b>	The name of the OC4J instance where the RIBforSIM application is installed
<b>Destination</b>	jndi_providers_ribclient.xml
<b>Example</b>	rib-sim-o4j-instance
<b>Notes</b>	Used only if integrating SIM with RIBforSIM

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

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

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

## Screen: JNDI Details

**JNDI Details**

SIM JNDI Provider URL

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

RPM Provider URL

RSLforRMS Provider URL

RIBforSIM Provider URL

Cancel Back Next Install

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

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

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

<b>Field Title</b>	RIBforSIM Provider URL
<b>Field Description</b>	JNDI provider URL for the RIBforSIM application
<b>Destination</b>	jndi_providers.xml
<b>Example</b>	opmn:ormi://myhost.us.oracle.com:6003:rib-sim-oc4j-instance/rib-sim
<b>Notes</b>	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

SIM Schema

SIM Schema Password

Cancel Back Next Install

<b>Field Title</b>	SIM JDBC URL
<b>Field Description</b>	URL used by the SIM application to access the SIM database schema.
<b>Destination</b>	data-sources.xml
<b>Example</b>	<pre>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))</pre>

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

<b>Field Title</b>	SIM Schema Password
<b>Field Description</b>	The password for the SIM Schema
<b>Destination</b>	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

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

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

Search User Password

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

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

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

<b>Field Title</b>	Search User Password
<b>Field Description</b>	Password for the search user DN.
<b>Destination</b>	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**

**Store Inventory Management 13 Installer - Oracle Retail**

**ORACLE**

**Mail Session Details**

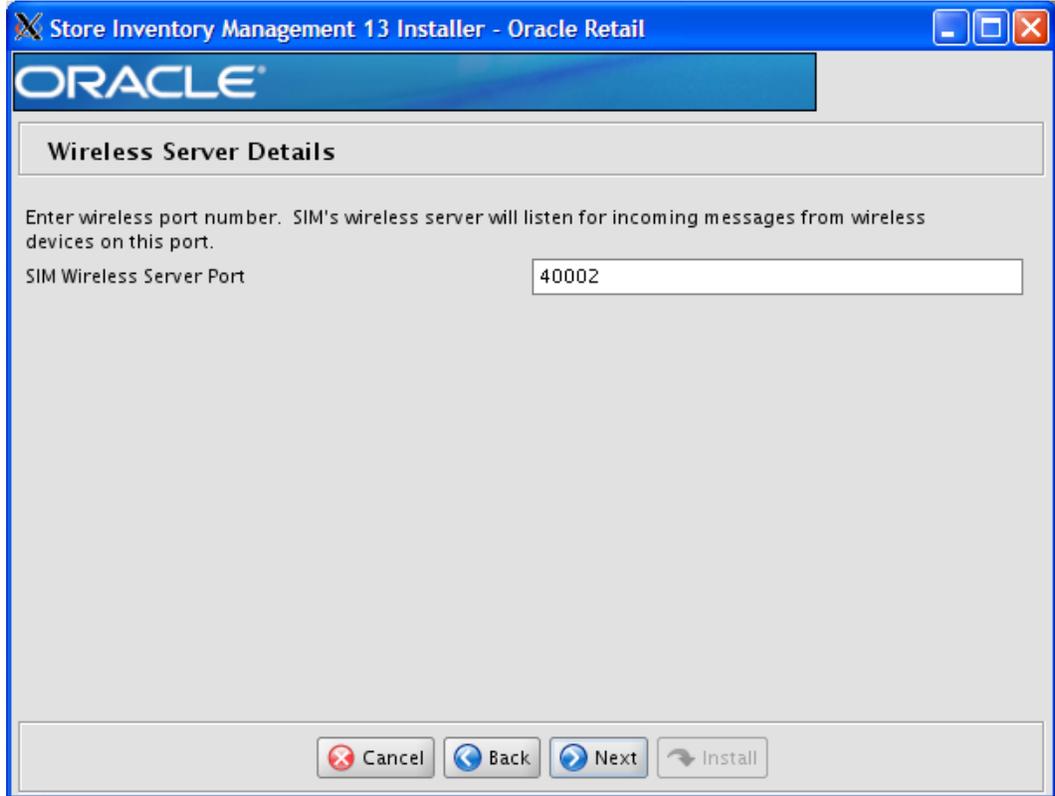
Enter mail SMTP host. SIM will send emails using this server.

SIM Mail SMTP Host

Cancel Back Next Install

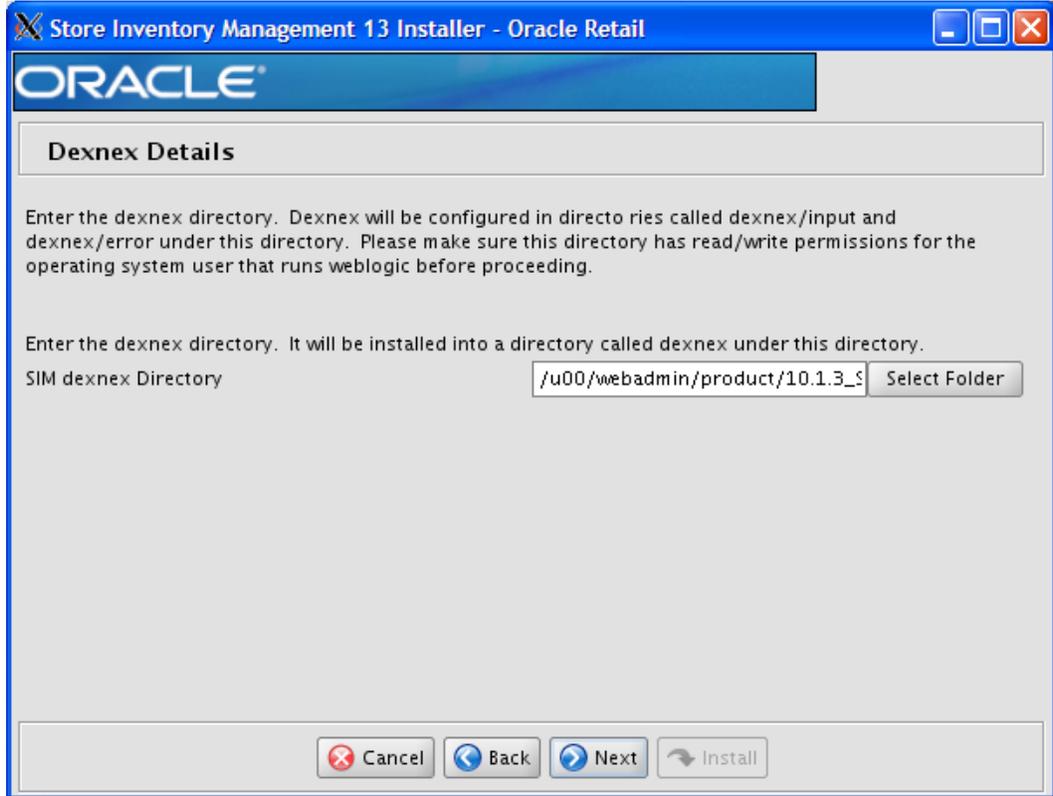
<b>Field Title</b>	SIM Mail SMTP Host
<b>Field Description</b>	Enter mail SMTP host. SIM will send emails using this server.
<b>Destination</b>	mail.cfg
<b>Example</b>	smtp.yourmailhost.com

**Screen: Wireless Server Details**



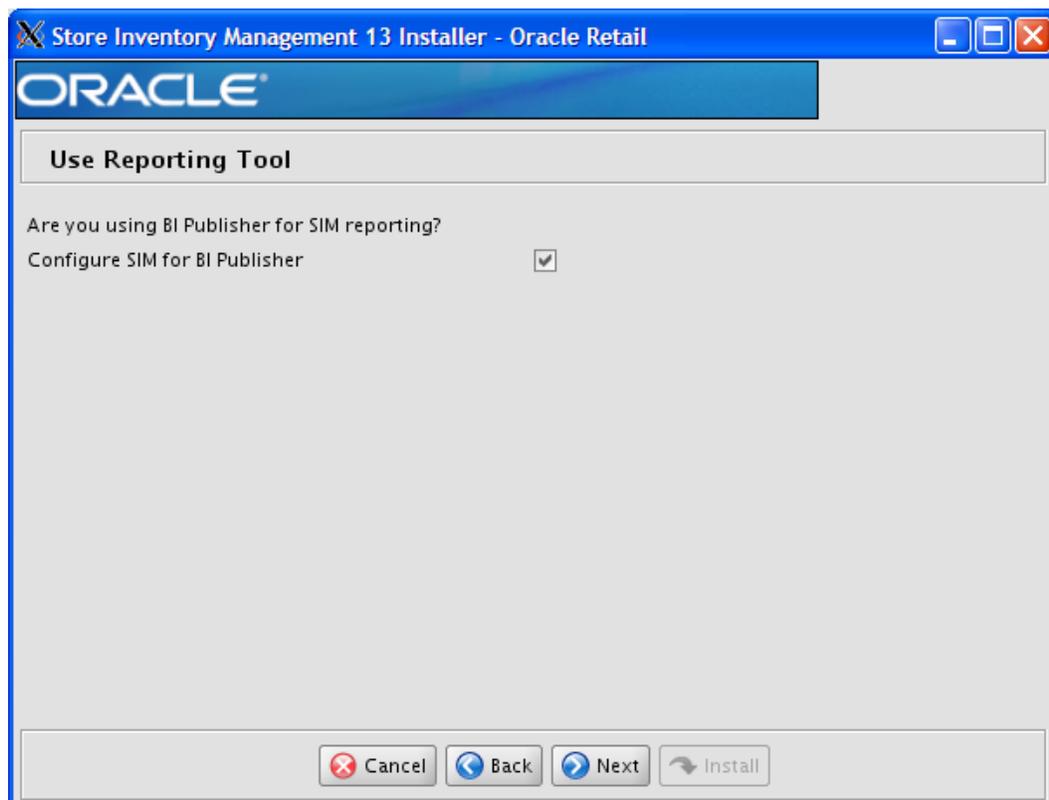
<b>Field Title</b>	SIM Wireless Server Port
<b>Field Description</b>	Choose an available port that the Wavelink server will use to listen for incoming messages from wireless devices.
<b>Destination</b>	wireless_services.cfg, wavelink-startup.sh
<b>Example</b>	40002

**Screen: Dexnex Details**



<b>Field Title</b>	SIM dexnex Directory
<b>Field Description</b>	The dexnex directory
<b>Example</b>	/u00/webadmin/product/10.1.3_9/OAS/j2ee/sim-instance/dexnex

### Screen: Use Reporting Tool




---

**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.

---

<b>Field Title</b>	Configure SIM for BI Publisher
<b>Field Description</b>	Toggle field indicating whether or not to configure SIM for BI Publisher Reporting Tool
<b>Destination</b>	insert_default_st_config_val.pls
<b>Example</b>	True
<b>Notes</b>	The following configuration screens will only appear if this checkbox is marked.

## Screen: Reporting Tool Configuration

**Reporting Tool Configuration**

Reporting Tool Host: mspdv351

Reporting Tool Port: 7778

Reporting Tool Context Root: xmlpserver

Buttons: Cancel, Back, Next, Install

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

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

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

Reporting Tool Request URL

This path resides inside of BI Publisher to hold report templates

Report Template Path

Reporting Tool Username

Reporting Tool Password

Cancel Back Next Install

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

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

<b>Field Title</b>	Reporting Template Path
<b>Field Description</b>	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.
<b>Destination</b>	Updates the reporting tool related default values in SIM database.
<b>Example</b>	/Base/SIM/13.2

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

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

**Screen: Enable SSO in SIM**

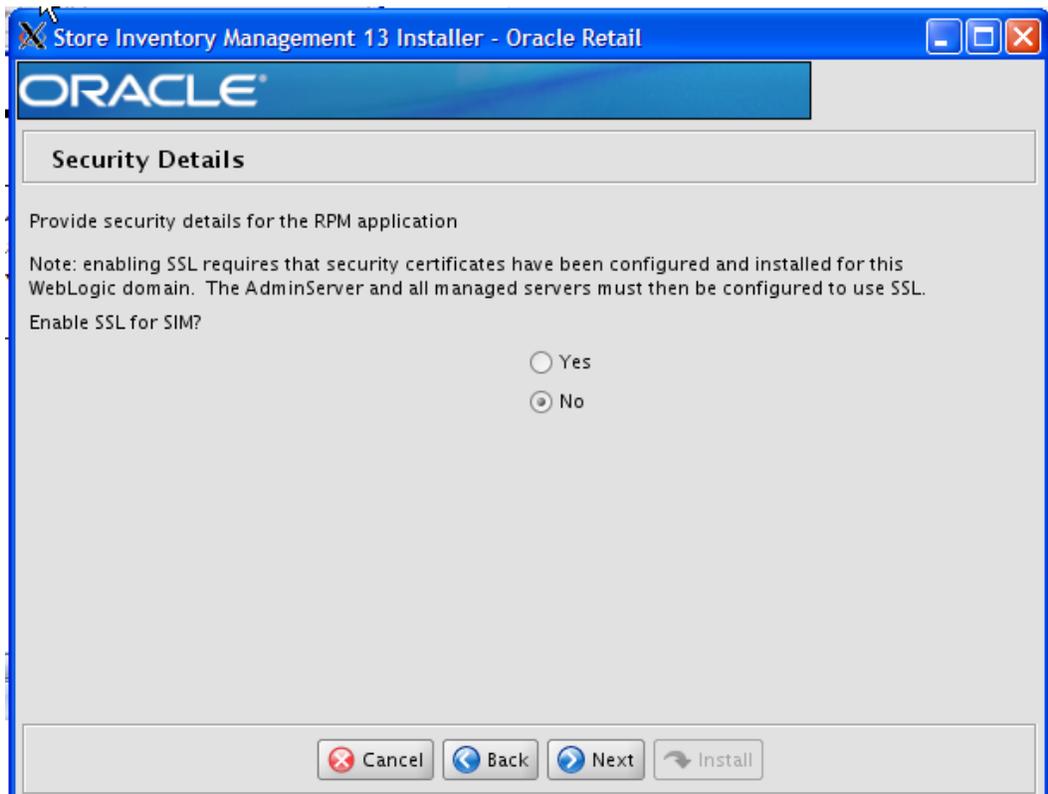
<b>Field Title</b>	Enable Single Sign-On in SIM?
<b>Field Description</b>	Configures SIM to enable/disable SSO
<b>Destination</b>	JnlpLaunch.properties



# 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



<b>Field Title</b>	Enable SSL for SIM?
<b>Field Description</b>	Choosing 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. Choosing no will deploy and configure SIM without SSL.

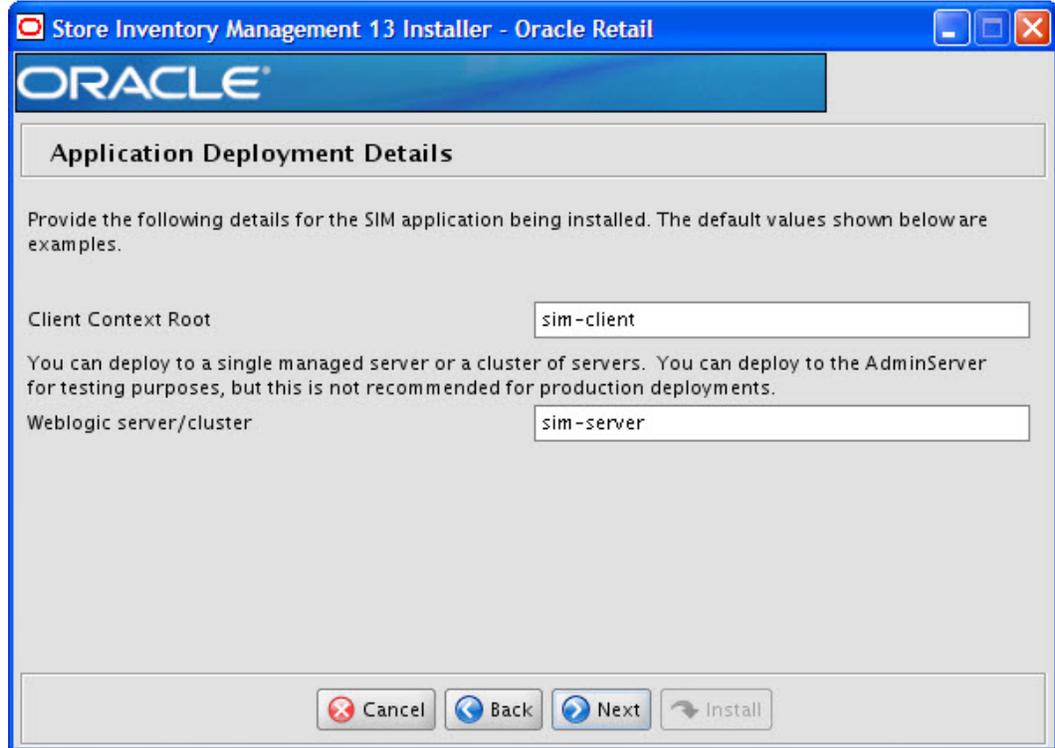
### Screen: Application Server Details

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

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

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

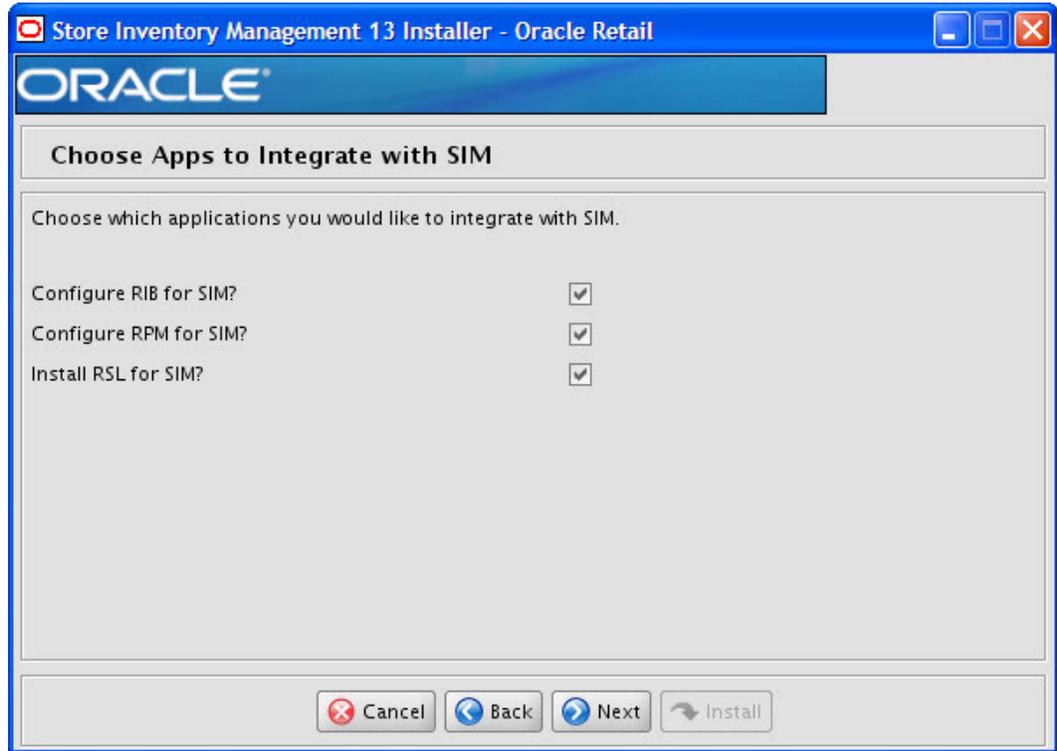
**Screen: Application Deployment Details**



<b>Field Title</b>	Client Context Root
<b>Field Description</b>	Context root for sim client
<b>Example</b>	sim-client

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

**Screen: Choose Apps to Integrate with SIM**



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

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

<b>Field Title</b>	Install RSL for SIM?
<b>Field Description</b>	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:

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:

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

rib-sim Provider Url:

Buttons: Cancel, Back, Next, Install

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

<b>Field Title</b>	rib-sim WebLogic Password
<b>Field Description</b>	Password for the RIBforRPM 13 user.

<b>Field Title</b>	rib-sim WebLogic Alias
<b>Field Description</b>	This is the alias for the user name.
<b>Example</b>	weblogic-alias
<b>Note</b>	This alias must be unique. Do not use the same value for any other alias fields in the installer. If the same alias is used, entries in the wallet can override each other and cause problems with the application.

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

**Screen: RPM JNDI Details**

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

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

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

<b>Field Title</b>	RPM User Alias
<b>Field Description</b>	This is the alias for <RPM Weblogic Admin User>
<b>Examples</b>	rpmuser-alias (Make sure to give the same name as provided for <RPM Weblogic Admin User>
<b>Note</b>	This alias must be unique. Do not use the same value for any other alias fields in the installer. If the same alias is used, entries in the wallet can override each other and cause problems with the application.

---

**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**

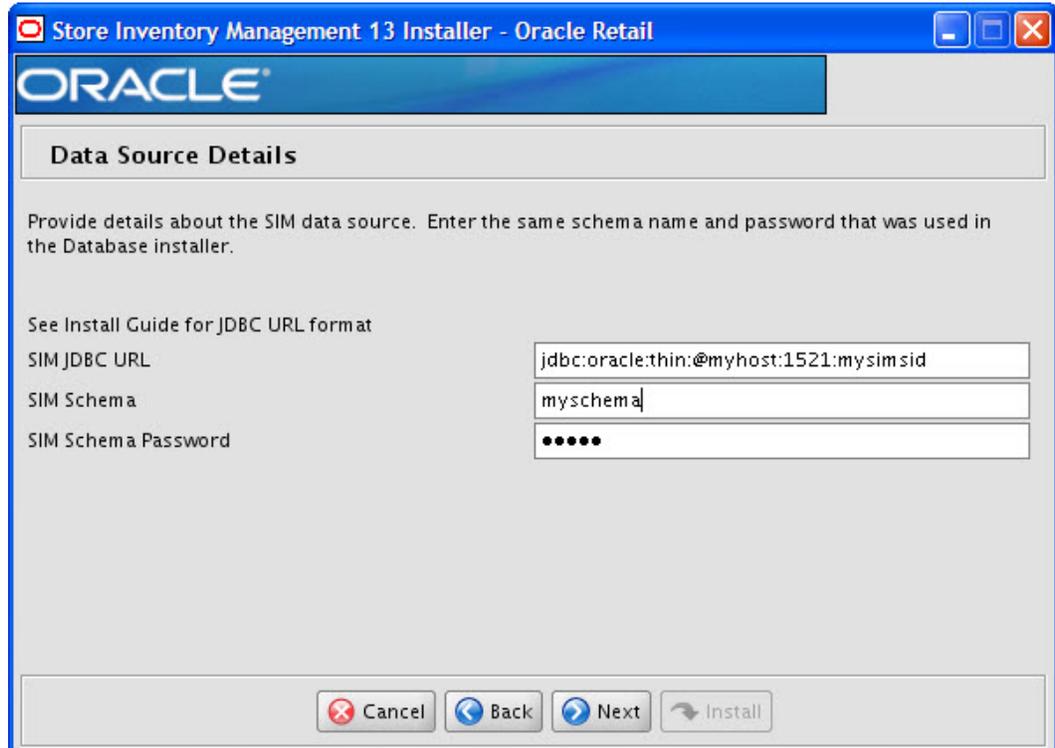
<b>Field Title</b>	RSLforRMS Provider URL
<b>Field Description</b>	This is the provider URL for the RSLforRMS
<b>Destination</b>	jndi_providers.xml
<b>Example</b>	t3://myhost82.us.oracle.com:17011/rsl-rms

<b>Field Title</b>	RSLforRMS Weblogic Admin User
<b>Field Description</b>	This is the user name for login to RSLforRSM Weblogic Server.
<b>Example</b>	weblogic

<b>Field Title</b>	RSLforRMS Password
<b>Field Description</b>	This is the password of the user provided for RSLforRMS Weblogic Admin user in the above.

<b>Field Title</b>	RSLforRMS User Alias
<b>Field Description</b>	This is the alias for RSLforRMS Weblogic Admin User.
<b>Examples</b>	rmsuser-alias (Make sure to give the same name as provided for <RSLforRMS Weblogic Admin User>
<b>Note</b>	This alias must be unique. Do not use the same value for any other alias fields in the installer. If the same alias is used, entries in the wallet can override each other and cause problems with the application.

**Screen: Data Source Details**



<b>Field Title</b>	SIM JDBC URL
<b>Field Description</b>	URL used by the SIM application to access the SIM database schema.
<b>Destination</b>	WebLogic admin server
<b>Example</b>	<p>jdbc:oracle:thin:@myhost:1521:mysimsid</p> <p>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)))</p>

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

<b>Field Title</b>	SIM Schema Password
<b>Field Description</b>	The password for the SIM Schema
<b>Destination</b>	WebLogic admin server

### Screen: LDAP Directory Server Details

**Store Inventory Management 13 Installer - Oracle Retail**

**ORACLE**

**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

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

LDAP Search Base DN

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

Search User DN

Search User Password

Cancel Back Next Install

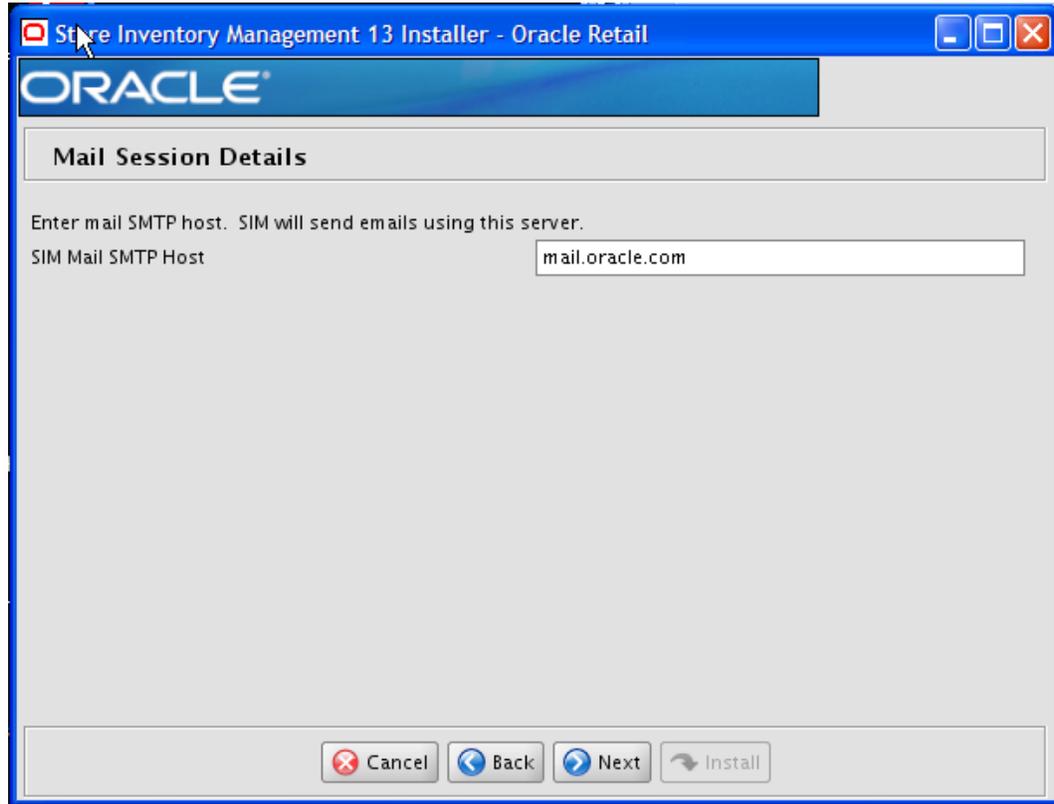
<b>Field Title</b>	LDAP server URL
<b>Field Description</b>	URL for your LDAP directory server.
<b>Destination</b>	ldap.cfg
<b>Example</b>	ldap://myhost:389/

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

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

<b>Field Title</b>	Search User Password
<b>Field Description</b>	Password for the search user DN.
<b>Destination</b>	ldap.cfg

**Screen: Mail Session Details**



<b>Field Title</b>	SIM Mail SMTP Host
<b>Field Description</b>	The SMTP server that will be used to send notification emails from SIM.
<b>Destination</b>	WebLogic admin server
<b>Example</b>	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

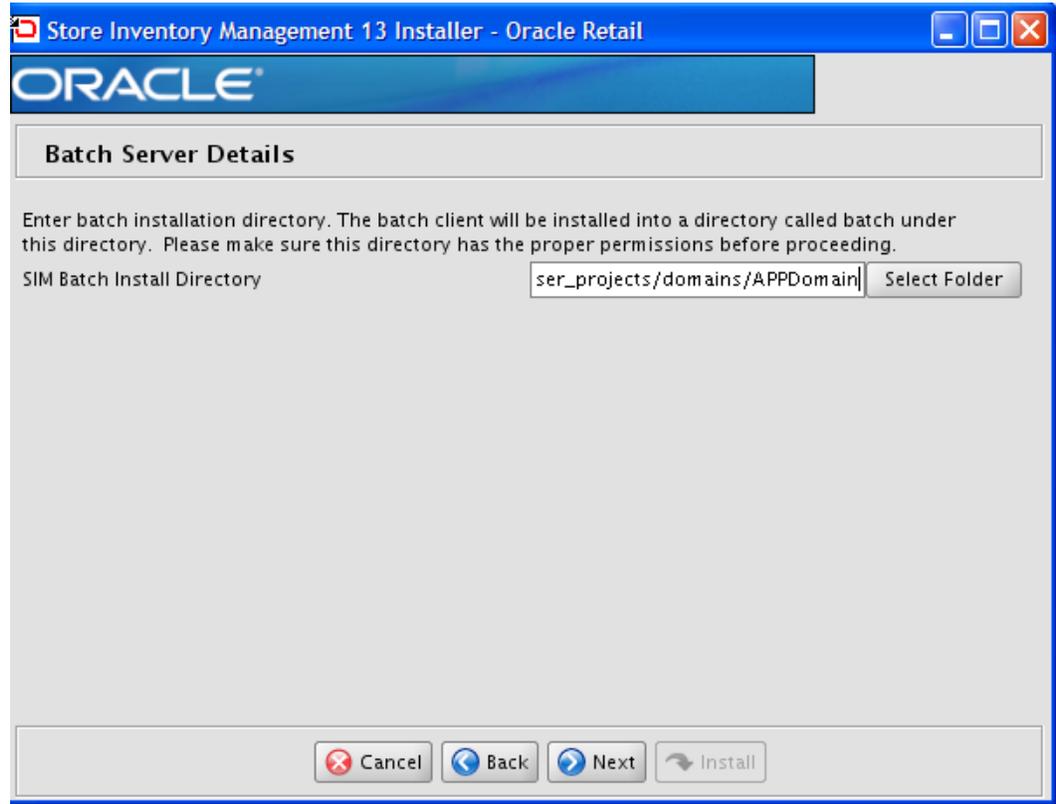
Enter wireless installation directory. The wireless client will be installed into a directory called wireless under this directory. Please make sure this directory has the proper permissions before proceeding.

SIM Wireless Install Directory

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

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

**Screen: Batch Server Details**



<b>Field Title</b>	SIM Batch Install Directory
<b>Field Description</b>	The batch installation directory.
<b>Example</b>	/u00/webadmin/product/10.3.x/WLS/user_projects/domains/APPDomain

**Screen: Dexnex Details**

**Store Inventory Management 13 Installer - Oracle Retail**

**ORACLE**

**Dexnex Details**

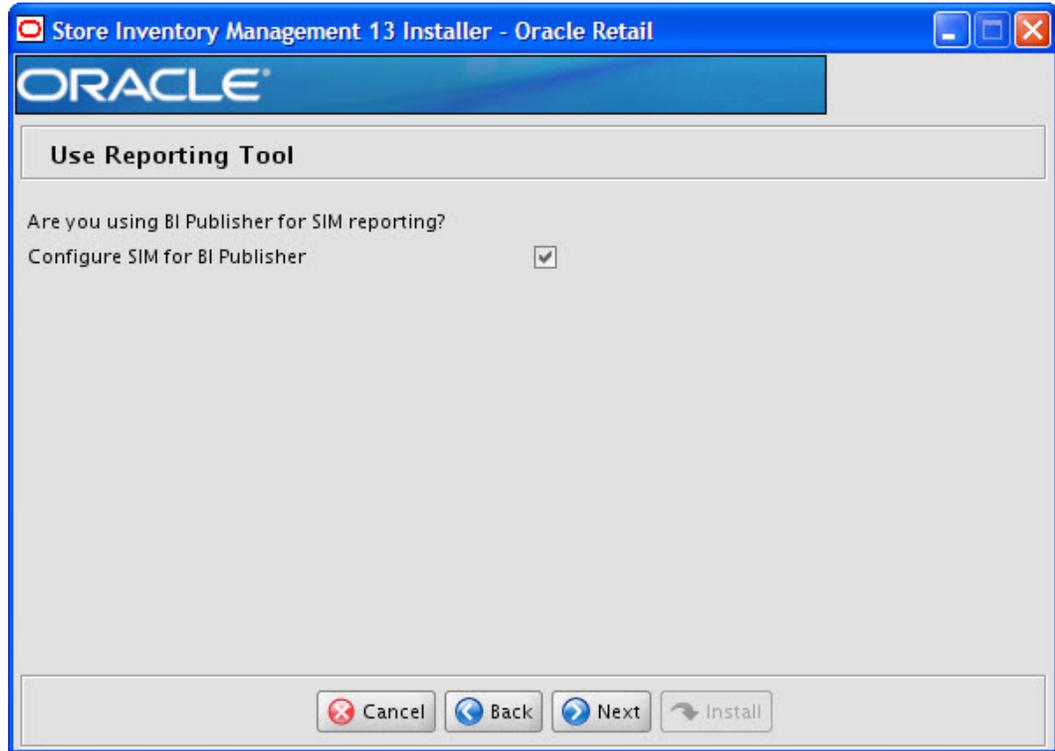
Enter the dexnex directory. Dexnex will be configured in directories called dexnex/input and dexnex/error under this directory. Please make sure this directory has read/write permissions for the operating system user that runs weblogic before proceeding.

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

SIM dexnex Directory

<b>Field Title</b>	SIM dexnex Directory
<b>Field Description</b>	The dexnex directory.
<b>Example</b>	/u00/webadmin/product/10.3.x/WLS/user_projects/domains/APPDomain

**Screen: Use Reporting Tool**



**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.

<b>Field Title</b>	Configure SIM for BI Publisher
<b>Field Description</b>	Toggle field indicating whether or not to configure SIM for BI Publisher Reporting Tool
<b>Destination</b>	insert_default_st_config_val.pls
<b>Example</b>	true
<b>Notes</b>	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: redevlv0074.us.oracle.com

Reporting Tool Port: 7003

Reporting Tool Context Root: xmlpserver

Buttons: Cancel, Back, Next, Install

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

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

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

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

Reporting Tool Request URL

This path resides inside of BI Publisher to hold report templates

Report Template Path

Reporting Tool Username

Reporting Tool Password

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

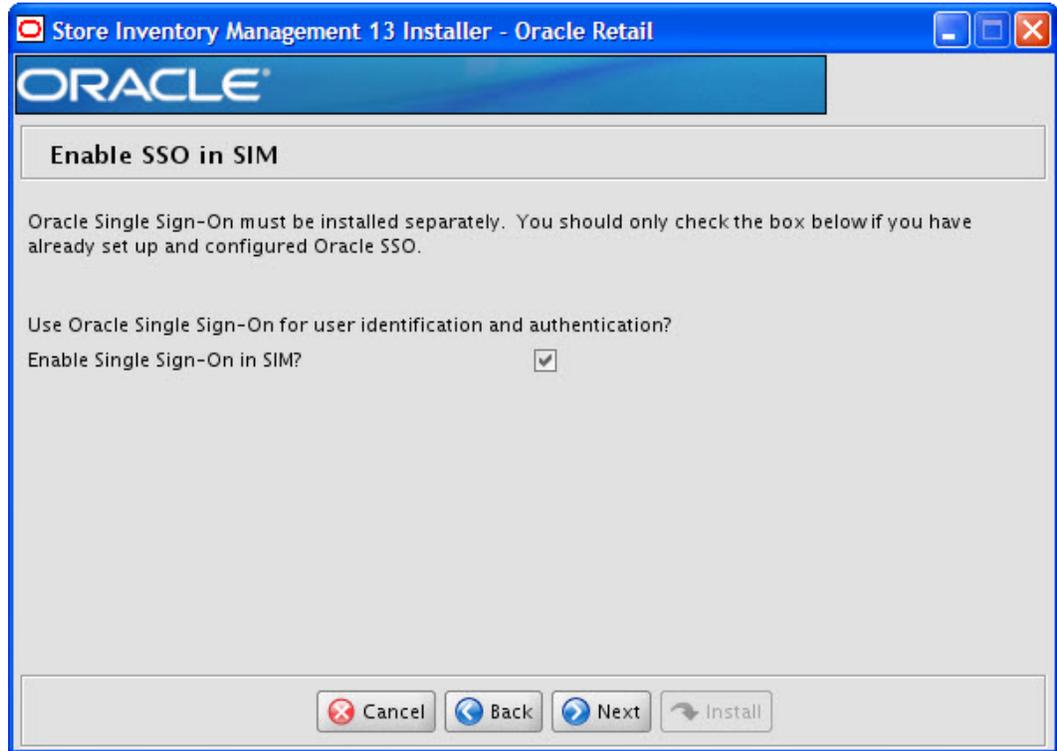
<b>Field Title</b>	Reporting Tool Address URL
<b>Field Description</b>	Confirmation field of address configured from values provided on previous screen
<b>Destination</b>	Updates the reporting tool related default values in SIM database.
<b>Example</b>	http://myhost.us.oracle.com: 17015/xmlpserver/servlet/scheduler

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

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

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

## Screen: Enable SSO in SIM



<b>Field Title</b>	Use Oracle Single Sign-On for user identification and authentication?
<b>Field Description</b>	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, choose Yes. A choice of No will configure SIM to use its own LDAP directory settings for authentication.
<b>Destination</b>	JnlpLaunch.properties

### SCREEN: Oracle Single Sign-On Details

Store Inventory Management 13 Installer - Oracle Retail

**ORACLE**

**Oracle Single Sign-On Details**

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

OSSO web tier port

Cancel Back Next Install

<b>Field Title</b>	Oracle Single Sign-On Details
<b>Field Description</b>	This is the port used to access the Single Sign-On webtier
<b>Example</b>	8888

---

---

## 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`

---

---

---

---

**Note:** Silent mode is supported only in the OAS SIM installer. Silent installations are not supported in WebLogic.

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## 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: EJModule(
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_13.2.4/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, the version of which is being used by the Application server, 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](#)”).

## 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/utills/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/utills/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.



## Appendix: Setting up SIM Reports in BI Publisher

To install the SIM reports into an existing installation of BI Publisher (either installed into OAS or Weblogic):

Log into BI Publisher as the administrator.

We need to create the data source for BI Publisher to connect to the SIM schema. Click on the “Admin” tab, and then the “JDBC Connection” link under Data Sources. If there is no SIM data source then a new connection will need to be created, click the “Add Data Source” button and create the data source with your connection info, click the “test connection” before applying to ensure you have the information entered correctly:

The screenshot shows the 'Add Data Source' configuration page in Oracle BI Publisher Enterprise. The 'General' tab is selected, and the following fields are filled out:

- Data Source Name: BIP-SIM-DATASOURCE
- Driver Type: Oracle 9i/10g/11g
- Database Driver Class: oracle.jdbc.OracleDriver
- Connection String: jdbc:oracle:thin:@simdbhost:1521:mysimsid
- Username: simschema
- Password: [masked]

A 'Test Connection' button is located at the bottom of the form.

Now that the data source has been created, we need to get the SIM reports into the location where BIP can find them. Click the Admin tab. Under System Maintenance, click the Report Repository link. This will show where the reports are located on the server running BI Publisher:

The screenshot shows the 'Report Repository' configuration page in Oracle BI Publisher Enterprise. The 'Report Repository' tab is selected, and the following fields are filled out:

- Repository Type: File System
- Path: /u00/webadmin/product/xmlpserver/XMLP

That is in the base directory for all the BIP reports. The SIM reports will be copied to the ‘Guest’ location. Create a directory named ‘SIM13’ under ‘Guest’ and copy the reports into ‘SIM13’ directory:

```
# cd /u00/webadmin/product/xmlpserver/XMLP/Reports/Guest
# mkdir SIM13
```

The reports are included in the SIM application distribution in a zip file, so copy that from where you installed the SIM application into the new report directory and unzip it:

```
# cd /u00/webadmin/product/xmlpserver/XMLP/Reports/Guest/SIM13
# cp $INSTALL_DIR/sim/application/sim13/reports/sim-reports.zip .
# unzip sim-reports.zip
```

All the individual reports are available in their own zip files when sim-reports.zip file is extracted:

AGSNDefaultReport.zip	ItemTicketQRCodeReport.zip	sim-
reports.zip		
BolReturnReport.zip	ItemTicketReport1.zip	
StockCountAllLocReport.zip		
BolTransferReport.zip	ItemTicketReport2.zip	
StockCountExportReport.zip		
DirectDeliveryDiscrepantItemsReport.zip	ItemUDATicketDefaultReport.zip	
StockCountRejectedItemReport.zip		
DirectDeliveryReport.zip	PickListReport.zip	
StockCountReport.zip		
InventoryAdjustmentReport.zip	ReturnReport.zip	
StoreOrderReport.zip		
ItemBasketDefaultReport.zip	ShelfLabelDefaultReport.zip	
TransferReport.zip		
ItemDetailReport.zip	ShelfLabelQRCodeReport.zip	
WarehouseDeliveryReport.zip		
ItemRequestReport.zip	ShelfLabelReport1.zip	
ItemTicketDefaultReport.zip	ShelfLabelReport2.zip	

These need to be unzipped in their own directory of the same name as the report. For example, to get the AGSNDefaultReport into place:

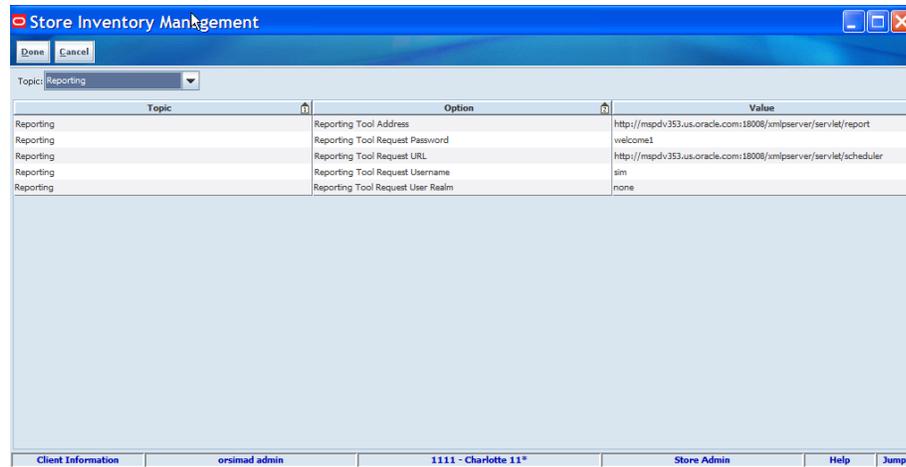
```
# mkdir AGSNDefaultReport
# mv AGSNDefaultReport.zip AGSNDefaultReport
# cd AGSNDefaultReport
# unzip AGSNDefaultReport.zip
Archive:  AGSNDefaultReport.zip
  inflating: AGSNDefaultReport.xdo
  inflating: AGSNBatchDefaultTemplate.rtf
# ls
AGSNBatchDefaultTemplate.rtf  AGSNDefaultReport.xdo  AGSNDefaultReport.zip
```

This needs to be done for all the reports. Once this is done all the zip files can be removed, they are not used.

Bounce the xmlpserver application. The new SIM reports should be available in the "Shared Folders > Guest > SIM13" location of BI Publisher.

Make sure that the SIM application is set to use the reports. This can be done in the SIM application itself in:

From Admin, go to setup -> store admin. Select the reporting topic:



Change the above URLs to match the host and port of where BI Publisher is running, along with the username/password it needs to log into the BI Publisher app.

**Note:** This is not a global setting and will need to be done for each store.

The above info is put into these fields of the RK\_STORE\_CONFIG table of the SIM schema for each store in the database:

REPORTING\_TOOL\_ADDRESS  
 REPORTING\_TOOL\_REQUEST\_PASSWORD  
 REPORTING\_TOOL\_REQUEST\_URL  
 REPORTING\_TOOL\_REQUEST\_USERNAME  
 REPORTING\_TOOL\_REQUEST\_USERREALM

Validation of Reports:

To test the reports, log into SIM application and click Reports. It should launch BI Publisher in a browser window. You can navigate to the SIM13 reports in BIPublisher window.



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## 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 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.

### 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:

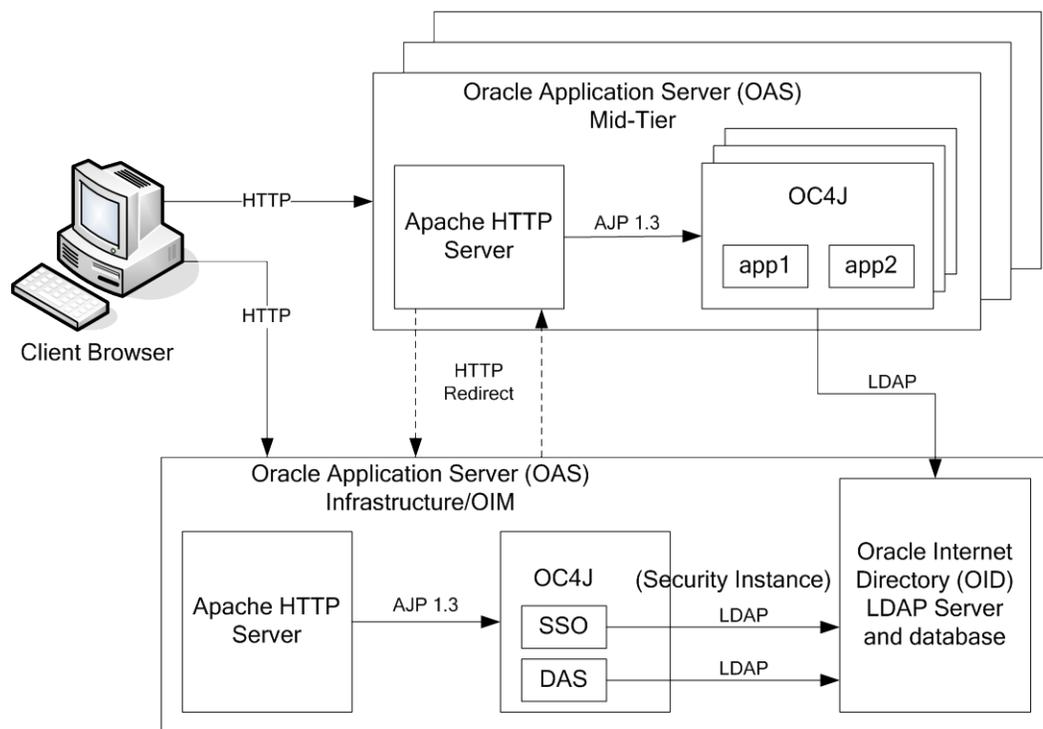
1. The Oracle HTTP server recognizes the user has not been authenticated and redirects the browser to the Oracle Single Sign-On servlet.
2. The OSSO servlet determines the user must authenticate, and displays the OSSO login page.
3. The user must sign in via a valid user ID and password. If the OSSO 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 midtier 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 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.

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
<code>ssoMode</code>	true/false	Enables/disables SSO
<code>ssoDynamicResourceCreate</code>	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.



---

---

## 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 processes 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.

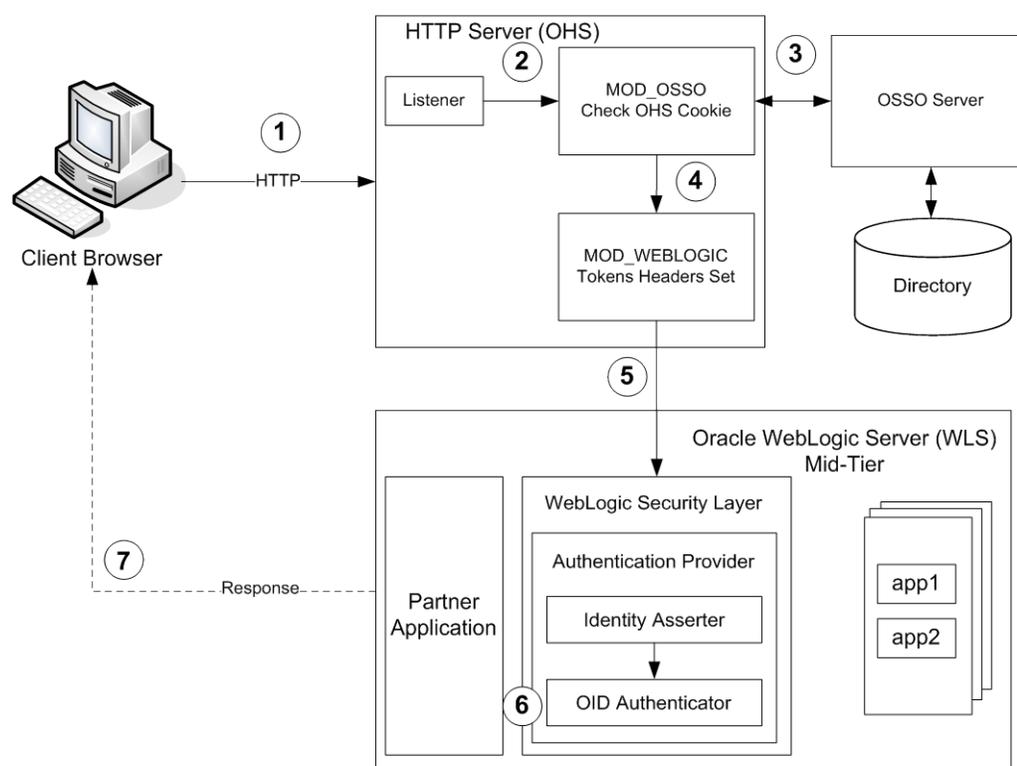
### **Dynamically Protected URLs**

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.

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.

## 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 FIRST and SECOND parts of this document

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

---

---

## 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:

3. Create a wallet using the following command:

```
mkstore -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*.

4. 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.

5. Repeat Step 2 for all the database user accounts.
6. 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
```

7. 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, RPM Plsql Batch, RETL DB, RWMS batch, and ARI

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:  
`dvo1s29_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:  
`mspd351:[103x_WLS] /u00/webadmin/product/10.3.x/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:  
`mspd351:[103x_WLS] /u00/webadmin/product/10.3.x/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:

```
mspdev351:[103x_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:[103xWLS]
/u00/webadmin/product/10.3.x/WLS/user_projects/domains/java_domain/retail/rpml
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:[103xWLS]
/u00/webadmin/product/10.3.x/WLS/user_projects/domains/java_domain/retail/rpml
32test/retail-public-security-api/bin>
```

#### dump\_credentials.sh

dump\_credentials.sh is used to retrieve information from the 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
/u00/webadmin/product/10.3.x/WLS/user_projects/domains/132_mck_soa_domain/retail/reim13/config
```

```
Retail Public Security API Utility
```

```
=====
```

Below are the credentials found in the wallet at the location: /u00/webadmin/product/10.3.x/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. You can add new or update using save\_credential.sh as shown below:

```
save_credential.sh -a <alias> -u <user> -p <partition name> -l <path of the
wallet file location where credentials are stored>
```

**Example:**

```
mispdv351:[103x_WLS]
/u00/webadmin/mock132_testing/rtil/rtil/application/retail-public-security-
api/bin> save_credential.sh -l
/u00/webadmin/product/10.3.x/WLS/user_projects/domains/132_mck_soa_domain/reta
il/reiml3/config
-a RMS-ALIAS -p reiml3 -u rms132mock
```

```
=====
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.x/WLS/user_projects/domains/132_mck_soa
_domain/retail/reim13/config
csm.wallet.partition.name=reim13
```

## 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 REIM app user 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 `$MMHOME/RETLforRPAS/rfx/etc/rmse_rpas_config.env`.
- The `RETL_WALLET_ALIAS` should point to the Java wallet entry:  
`export RETL_WALLET_ALIAS="retl_java_rms01user"`
  - The `ORACLE_WALLET_ALIAS` should point to the Oracle network wallet entry:  
`export ORACLE_WALLET_ALIAS="dvo1s29_rms01user"`
  - The `SQLPLUS_LOGON` should use the `ORACLE_WALLET_ALIAS`:  
`export SQLPLUS_LOGON="/@${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 Location	Wallet Partition	Alias Name	User Name	Use	Create By	Alias Example	Notes
<b>RMS batch</b>	DB	<RMS batch install dir (MMHOME)>/.wallet	n/a	<Database SID>_<Database schema owner>	<rms schema owner>	Compile, execution	Installer	n/a	Alias hard-coded by installer
<b>RMS forms</b>	DB	<forms install dir>/base/.wallet	n/a	<Database SID>_<Database schema owner>	<rms schema owner>	Compile	Installer	n/a	Alias hard-coded by installer
<b>ARI forms</b>	DB	<forms install dir>/base/.wallet	n/a	<Db_Ari01 >	<ari schema owner>	Compile	Manual	ari-alias	
<b>RMWS forms</b>	DB	<forms install dir>/base/.wallet	n/a	<Database SID>_<Database schema owner>	<rwms schema owner>	Compile forms, execute batch	Installer	n/a	Alias hard-coded by installer
<b>RPM app</b>	DB	<RPM batch install dir>/.wallet	n/a	<rms schema owner alias>	<rms schema owner>	Execute batch	Manual	rms-alias	
<b>RWMS auto-login</b>	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	

Retail App	Wallet Type	Wallet Location	Wallet Partition	Alias Name	User Name	Use	Create By	Alias Example	Notes
			<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
<b>AIP app</b>	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	
<b>RPM app</b>	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	

Retail App	Wallet Type	Wallet Location	Wallet Partition	Alias Name	User Name	Use	Create By	Alias Example	Notes
			rpm13	<rpm application user one alias>	<rpm application user one name>	App use	Installer	user1-alias	
			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	
<b>ReIM app</b>	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	

Retail App	Wallet Type	Wallet Location	Wallet Partition	Alias Name	User Name	Use	Create By	Alias Example	Notes
<b>Alloc app</b>	JAVA	<weblogic domain home>/retail/<deployed alloc app name>/config							Each alias must be unique
			<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	
<b>RSL app</b>	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	
<b>SIM app</b>	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	

Retail App	Wallet Type	Wallet Location	Wallet Partition	Alias Name	User Name	Use	Create By	Alias Example	Notes
			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	
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	

Retail App	Wallet Type	Wallet Location	Wallet Partition	Alias Name	User Name	Use	Create By	Alias Example	Notes
Application			rib- <app>#user- alias	<app weblogic user alias>	<app weblogic user name>	Integratio n 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>	Integratio n use	Installer	db-user- alias	Valid only for rfm, rms, rwms, tafr
Error Hospital			rib- <app>#hosp -user-alias	<rib-app error hospital database schema user alias>	<rib-app error hospital database schema user name>	Integratio n use	Installer	hosp-user- alias	

---

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# 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.

---

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**Note:** The installation order is not meant to imply integration between products.

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## 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)

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**Note:** ORFM is an optional application for RMS if you are implementing Brazil localization.

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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)