Oracle® Retail Security Manager

Installation Guide
Release 12.0.2

April 2007

ORACLE

Oracle® Retail Security Manager Installation Guide, Release 12.0.2

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Contents

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 Security Manager Release 12.0.2 documentation set:

- Oracle Retail Security Manager Release Notes

Customer Support

- https://metalink.oracle.com

When contacting Customer Support, please provide:

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

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."

> **Note:** This is a note. It is used to call out information that is important, but not necessarily part of the procedure.

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

A hyperlink appears like this.

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Pre-Installation Tasks

RSM is a Service-Oriented Architecture application. The client code is Java-based and is launched from Java WebStart. The RSM service layer is a J2EE application that runs in the Oracle Application Server and accesses an Oracle Database server and an LDAP compliant Directory Server.

Check Database Server Requirements

General Requirements for a database server running RMS include:

- UNIX based OS certified with Oracle RDBMS 10g Enterprise Edition (options are AIX5.2, AIX5.3, Solaris 9, and HP-UX 11.11)
- Oracle RDBMS 10g Release 2 Enterprise Edition (minimum 10.2.0.2.0 patchset required) with the following patches and components:

  Patches:

  - 5087548 (POST 10.2.0.2 PERMISSIONS ARE STILL WRONG FOR NETWORK/ADMIN AND LDAP DIRECTORIES)

  Components:

  - Oracle Database 10g
  - Oracle Partitioning
  - Oracle Net Services
  - Oracle Call Interface (OCI)
  - Oracle Programmer
  - Oracle XML Development Kit
- ANSI compliant C compiler (certified with OS and database version)
- Perl compiler 5.0 or later
- x-Windows interface

Check Application Server Requirements

General requirements for an application server capable of running RSM include:

- UNIX based OS certified with Oracle Application Server 10g version 10.1.3. (options are AIX5.2, AIX5.3, Solaris 9, and HP-UX 11.11)
- Oracle Application Server 10g version 10.1.3 with the following patches:
  - 4992357 (ILLEGALACCESSERROR WHEN ATTEMPTING TO LOAD ORACLE.SQL.CHARACTERSET CLASS)
  - 4959854 (CANNOT RESTART MDB THROUGH OC4J ASCONSOLE)
  - 4645524 (RETEK : RMIINITIALCONTEXTFACTORY DOES NOT WORK PROPERLY WITH GLOBAL JNDI)
  - 4619599 (ABILITY TO CONTROL MDBS INITIAL STATE)

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

Check Directory Server Requirements

RSM supports both xml file and directory server based user authentication and searching. For LDAP, RSM is certified with the following directory servers:

- Oracle Internet Directory 10.1.2.0.2*
- Microsoft Windows 2000 (Service Pack 4) Active Directory
- OpenLDAP version 2.x**

There are no known limitations that would prevent RSM from running against any LDAP 3.0-compliant directory server.

* RSM is certified with Oracle LDAP 10.1.2.0.2 on Solaris 9 and AIX 5.3.

** RSM is certified with OpenLDAP version 2.1.12 on Solaris and OpenLDAP version 2.0.19 on Windows NT.

Check Third-Party Software Dependencies

- Hibernate 2.1.8 must be downloaded and the hibernate2.jar file just be extracted. The RSM application installation procedure specifies how to install this file.

Check Client PC and Web Browser Requirements

Client PC Requirements

- Operating system: Windows 2000 or XP
- Display resolution: 1024x768
- Processor: 1GHz or higher;
- Memory :512MBytes or higher;
- Sun J2RE Runtime equal to v1.4.2.

Browser Requirements

The browser is used to launch the Java WebStart client. The following browsers are supported:

- Microsoft Internet Explorer 5.5 or higher.

Supported Oracle Retail Products

Requirement	Version
Oracle Retail Price Management (RPM)	12.0.3

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Oracle Enterprise Linux

With the 12.0.3 release of the Oracle Retail Security Manager, support for the Oracle Enterprise Linux operating system has been added. All pre-installation requirements for the Oracle Retail Merchandising System remain the same as stated in the RMS 12.0 installation guide, except for the following requirements which are specific to Oracle Enterprise Linux:

Operating System Version:

- Oracle Enterprise Linux 4 Update 4 for x86-64
- Minimum kernel version kernel-smp-2.6.9-42.0.0.0.1.EL.x86_64

Oracle RDBMS

- Oracle RDBMS 10g Release 2 Enterprise Edition for Linux x86-64
- Minimum 10.2.0.3 patchset
- Patches:

  5397953 (ORA-07445: [KKPAPITGETALL()+2152] [SIGSEGV] [ADDRESS NOT MAPPED TO OBJECT])

Oracle Application Server

- Oracle Application Server 10g Release 2 (10.1.2.0.2) for Linux x86
- Oracle Application Server 10g Release 3 (10.1.3.0) for Linux x86

Oracle Retail Merchandising System

- Configured with "No RIB" option

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RAC and Clustering

The Oracle Retail Security Manager has been validated to run in two configurations on Linux:

- Standalone OAS & RDBMS installations
- Real Application Cluster RDBMS & Oracle Application Server Clustering

The Oracle Retail products have been validated against a 10.2.0.3 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 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 10.1.2.0.2 is managed as an Active-Active cluster accessed through a hardware Load Balancer. It is suggested that the Web Cache installation included with OAS 10.1.2.0.2 be configured to reflect all application server Mid-Tier installations. Validation has been completed utilizing a RAC 10.2.0.3 Oracle Internet Directory database with the OAS 10.1.2.0.2 cluster.

References for Configuration:

- Oracle® Application Server High Availability Guide 10g Release 3 (10.1.3) Part Number B15977-02
- Oracle® Application Server High Availability Guide 10g Release 2 (10.1.2) Part Number B14003-05
- Oracle® Database Oracle Clusterware and Oracle Real Application Clusters Administration and Deployment Guide 10g Release 2 (10.2) Part Number B14197-03

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Database Installation Tasks

Security Manager Database Schema Installer

There are no databases changes for this release. Please refer to the RSM 12.0 database Installation Guide for more information about this section.

Customer Data

Some of the data needed for RSM to function correctly is customer specific and cannot be automatically inserted during implementation. For RPM data, customers must query RMS data to get the IDs of their departments and zone groups and create permissions for these IDs. Refer to the RSM release notes for additional information on completing these tasks. Additionaly some data for RSM is housed in the application that uses it. RPM has RSM data scripts. The scripts are in the RMS install in pricing/rsm.

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Application Installation UNIX (Sun Solaris/AIX/HP-UX)

Before proceeding you must install Oracle Application Server 10g 10.1.3 plus the patches listed in the Chapter 1 of this document. The RSM application will be deployed to an OC4J instance within the OracleAS10g installation. You must also have the Java 1.4.2 SDK installed on your system.

It is assumed Oracle RDBMS has already been configured and loaded with the appropriate RSM schema for your installation.

Create a New OC4J Instance for RSM

You can skip this section if you are redeploying to an existing OC4J instance.

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

1. Log into the server which is running your OracleAS10g installation. Set your ORACLE_HOME environment variable to point to this installation.
2. Choose a name for the new OC4J instance.

   Example: rsm-oc4j-instance

   Create this OC4J instance as documented in the Oracle Application Server Administrator's Guide.

   Example:
   $ORACLE_HOME/bin/createinstance
   –instanceName rsm-oc4j-instance

   When prompted for the oc4jadmin password, provide the same administrative password you gave for the AS10g installation. All OC4J instances running Oracle Retail applications must have the same oc4jadmin password.
3. Configure the JDK for this OC4J instance. By default, new OC4J instances use the Java 1.5 JDK that is shipped with the application server. This release of RSM requires Java 1.4.2.

   For instructions on how to change the JDK for an OC4J instance, see the Specifying the JDK in a Managed Configuration section of the OC4J Runtime Configuration chapter of the Oracle Containers for J2EE Configuration and Administration Guide.

4. (AIX only) If the AS10g installation is on AIX, you must set the **ibm.cl.eagerresolution** property in $ORACLE_HOME/opmn/conf/opmn.xml. Add the definition of this property to the startup **java-options** for the OC4J instance.

   Example:

```
<process-type id="rsm-oc4j-instance" module-id="OC4J" status="enabled">
   <module-data>
      <category id="start-parameters">
         <data id="java-bin" value="/usr/java14/bin/java"/>
                <data id="java-options" value="-Dibm.cl.eagerresolution
 Djava.security.policy=$ORACLE_HOME/j2ee/rsm-oc4j-
 instance/config/java2.policy -Dhttp.webdir.enable=false"/>
```

   Force OPMN to reload the configuration file.

   Example: $ORACLE_HOME/opmn/bin/opmnctl reload

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

   Example: $ORACLE_HOME/opmn/bin/opmnctl startproc process-type=rsm-oc4j-instance

6. Verify that the OC4J instance 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 AS10g, 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 will be served as plain text and you will not be able to launch the application.

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

Expand the RSM Application Distribution

1. Log into the UNIX server as the user who owns the OracleAS 10g installation. Create a new staging directory for the RSM application distribution (rsm12application.zip). There should be a minimum of 60 MB disk space available for the application installation files.

   Example: $ORACLE_HOME/j2ee/rsm-oc4j-instance/rsm-staging

   This location is referred to as INSTALL_DIR for the remainder of this chapter.
2. Copy rsm12application.zip to INSTALL_DIR and extract its contents.

Provide the Hibernate Jar File

The RSM application requires the hibernate2.jar file to be installed. This file should be downloaded from http://www.hibernate.org and placed in the INSTALL_DIR/rsm/application/hibernate folder before the installer is launched. For RSM 12, Hibernate 2.1.8 should be used. You need to download the Hibernate distribution and extract the hibernate2.jar file from it.

The RSM application installer verifies that hibernate2.jar has been provided and that it is the correct version. If hibernate2.jar is missing or incorrect, the installer does not proceed.

The installer applies hibernate2.jar to the RSM application by placing it under the ORACLE_HOME/j2ee/<oc4j-instance-name>/applications/<app-name>/lib directory.

Clustered Installations – Pre-Install Steps

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

All OC4J instances in the group must have the same instance name. The group must also be named identically to these OC4J instances. For example, you might have a group named "rsm-oc4j-instance" whose members are all OC4J instances named "rsm-oc4j-instance" on different ORACLE_HOME's.

Run the RSM Application Installer

Once you have an OC4J instance that is configured and started, you can run the RSM application installer. This installer configures and deploys the RSM application and Java WebStart client files.

Note: Appendix C contains details on every screen and field in the application installer.

1. Expand the rsm12application.zip distribution into INSTALL_DIR.
2. Set the ORACLE_HOME and JAVA_HOME environment variables. ORACLE_HOME should point to your AS10g installation. JAVA_HOME should point to a Java 1.4.2 JDK. The installer is not compatible with earlier versions of Java.
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. Run the install.sh script. This launches the installer. After installation is complete, a detailed installation log file is created: rsm12install.<timestamp>.log.

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 don't have to retype the settings for your environment. See Appendix D of this document for instructions on silent mode.

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

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

Clustered Installations – Post-Install Steps

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

1. The RSM client files should be copied from the master node to each of the remote nodes under the same path as on the master node. For example, you should take the files under $ORACLE_HOME/Apache/Apache/rsm and copy them onto the remote nodes under the same path.
2. All jnlp files in the RSM client will need to be modified so that the correct host name is used on each node.
3. The $ORACLE_HOME/j2ee/<oc4jinstance>/config/system-jazn-data.xml file should be copied from the master node to the same location on all remote nodes. This creates the RSM login modules in each OC4J instance.
4. By default, after installation all remote RSM instances will be pointing to the RPM install on the master node. Update the RPM URL in the jndi_providers_rpm.xml file on each remote node so that each RSM instance uses its own local RPM instance. This file is located at $ORACLE_HOME/j2ee/<oc4jinstance>/applications/<rsmappname>/conf/retek/jndi_providers_rpm.xml.
5. All of the OC4J instances in the group should be restarted for the RSM login modules and jndi_providers_rpm.xml changes to be picked up.

Example: $ORACLE_HOME/opmn/bin/opmnctl @cluster restartproc process-type=rsm-oc4j-instance

Manual Deployment Option

Skip this section if you chose the default option of allowing the installer to complete installation to the application server.

The installer includes the option to configure the application locally and skip deployment to the application server. If this option is chosen, the installer will make the configured application files available under <INSTALL_DIR>/rsm/application/rsm12/configured-output/.

If you chose this installer option, you can complete the installation by following these steps:

1. Create the RSM login modules in OC4J by running the following commands:

   cd <ORACLE_HOME>/j2ee/<instance>

java –jar ../home/jazn.jar –user oc4jadmin –password <oc4jadminpassword> -addloginmodule Retek.XML.LoginModule com.retek.rsm.domain.security.dao.XMLLoginModule required

java –jar ../home/jazn.jar –user oc4jadmin –password <oc4jadminpassword> -addloginmodule Retek.Ldap.LoginModule com.retek.rsm.domain.security.dao.LdapLoginModule required

2. Restart the OC4J instance where RSM will be deployed.

   Example: $ORACLE_HOME/opmn/bin/opmnctl restartproc process-type=rsm-oc4j-instance

3. Deploy the RSM ear file using the Enterprise Manager web interface. The configured ear file is located at <INSTALL_DIR>/rsm/application/rsm12/configured-output/rsm12.ear. When deploying the ear file, you should provide the same application name you gave to the installer. These values were stored in the <INSTALL_DIR>/rsm/application/ant.install.properties file by the installer for later reference.

Backups Created by Installer

The RSM application installer backs up previous WebStart client installations by renaming them with <timestamp> suffixes. This is done to prevent the removal of any custom changes you might have. These backup directories can be safely removed without affecting the current installation.

Examples: rsm.200605011726

Test the RSM Application

After the application installer completes you should have a working RSM application installation. To launch the application client, open a web browser and go to the rsm.jnlp file under the HTTP url you provided during the installation.

Example: http://myhost:7777/rsm/rsm.jnlp

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.

A

Appendix: RSM Configuration Files

This section documents which files are configured by the installers and where you can find them to do manual configuration later.

Directory Server Information in security.properties

RSM supports both file and directory server based user authentication and searching. If an LDAP compliant directory server is used, follow the steps below to configure RSM to use your directory server. If file based user authentication and searching is used, the LDAP settings are ignored. To use LDAP, update the LDAP settings in the file security.properties to match your organization's LDAP configuration. File security.properties can be found under conf/retek in the application's deployment directory.

- Update the authentication provider URL to point to the appropriate LDAP server.

  Example:
  ldap.authenticationprovider.url=ldap://64.238.67.60:389/
  ldap.authenticationprovider.url=<ldap://host:port/>

- Update the Distinguished Name where users exist on LDAP server.

  Example: ldap.user.basedn=ou=XXX,dc=XXXAD,dc=local
  ldap.user.basedn=<ou=orgUnit1,dc=domComponent1,dc=domComponennt2…>

- Update the parameters for the administrative user that performs searches on behalf of RSM.

  Example:
  ldap.usersearch.user=cn=Administrator,cn=users,dc=rcomad,dc=local

  Example: ldap.usersearch.password=PaSsW0rD
  ldap.usersearch.user=<distinguishedUser>
  ldap.usersearch.password=<password>

- Update the search filter used to limit the records that are returned when RSM searches for users. The filter represents conditions that must be met for records to be included in the result set. The example below reflects a base Active Directory install. The %v parameter is required by RSM regardless of directory server implementation.

  Example:
  ldap.user.filter=(&(objectCategory=person)(objectClass=user) %v)
  ldap.user.filter=<(&(base user search filter) %v)>

- Update the LDAP variable mappings if necessary. The variable mappings below, used to map LDAP to the directory schema, reflect a base Active Directory install. If these variable names differ from the LDAP directory server attributes, they should be updated accordingly.

  Example: ldap.firstname.attrname=givenName
  ldap.lastname.attrname=sn
  ldap.username.attrname=samAccountName

  Note: Security.properties also contains examples of ldap variable mappings for a base OpenLDAP implementation.

  Note: RSM executes only READ operations against the LDAP directory server; no ADD, UPDATE or DELETE operations.

  Note: For initial login to RSM to be possible, the user inserted into the database through the rsm sql (Chapter 2 above) must also be a valid user on the LDAP Directory Server. More specifically the user name inserted into the database must match a valid entry for LDAP mapping attribute ldap.username.attrname.

LoginModule Information in security.properties

- The login module setting configures the system to point to the applicable user repository (such as a directory server or xml file) for authentication. The login module value determines the JAAS login module that is responsible for accessing the user repository for authentication.

  Example: Authenticating against an LDAP compliant directory server:

  loginmodule=Retek.Ldap.LoginModule

  Example: Authenticating against the RSM users XML file:

  loginmodule=Retek.XML.LoginModule

  Note: This setting should correspond with the user dao implementation setting found in file dao_rsm.xml. More information on this setting can be found below. Also, if the XMLLoginModule is used, users must be added to file users_rsm.xml. More information on this setting can be found below.

User Search Information in dao_rsm.xml

These values are used to configure the user repository that is used by RSM for user searches. The default value is to use an LDAP compliant directory server as the user repository. Besides LDAP, XML file based searches are also supported. To switch between LDAP and XML, comment (uncomment) the 'impl package' tags associated with the dao.user interface package. This file can also be found under conf/retek in the application deployment directory.

Note: This setting should correspond with the Login Module configuration information found in the security.properties file (details above).

Note: If xml is chosen as the data access implementer, users must be added to file users_rsm.xml.

User Information in users_rsm.xml.

If XML is used for authentication and user searching, this file is used as the repository for the users. It must contain the userNames, first names, last names and passwords of all valid users. This file can also be found under conf/retek in the application deployment directory.

Note: If LDAP is used for authentication and user searching, this file is ignored.

For example:

```
<users>
    <user username="Valid.User" firstname="Valid" lastname="User"
password="PaSsW0rD"/>
    <user username="Alain.Frecon" firstname="Alain" lastname="Frecon"
password="retekPassword"/>
</users>
```

RPM Bootstrap Information in jndi_providers_rpm.xml

Security Manger requires data from other applications in order to administer data level permissions. The file jndi_providers_<app>.xml contains the information necessary for RSM to communicate with other Oracle Retail applications. Change to the conf/retek subdirectory of the application deployment directory and update jndi_providers_<app>.xml with the correct RMI address of the respective application.

Example:

```
<ejb_context_overrides>
  <provider app="app.rpm"
url="opmn:ormi://server1:5555:rpm/rpm12" factory="
oracle.j2ee.rmi.RMIInitialContextFactory ">
  </provider>
</ejb_context_overrides>
```

Client Settings in rsm.jnlp and rsmBC.jnlp

The rsm.jnlp file points the WebStart client to the RSM application running in the application server. Within this file is the HTTP URL through which it is accessed. rsm.jnlp also depends on rsmBC.jnlp to use the BouncyCastle encryption library.

The RSM application installer will set the HTTP URLs in both of these files.

Login Modules in system-jazn-data.xml

RSM requires two login modules configured in its OC4J instance. These modules must be configured in the ORACLE_HOME/j2ee/<oc4jinstancename>/config/system-jazn-data.xml file. The RSM application installer configures them automatically. The result of this configuration is the following content under <jazn-loginconfig>:

```
<application>
    <name>Retek.XML.LoginModule</name>
    <login-modules>
        <login-module>
            <class>com.retek.rsm.domain.security.dao.XMLLoginModule</class>
            <control-flag>required</control-flag>
            <options>
                <option>
                    <name>debug</name>
                    <value>true</value>
                </option>
            </options>
        </login-module>
    </login-modules>
</application>
<application>
    <name>Retek.Ldap.LoginModule</name>
    <login-modules>
        <login-module>
            <class>com.retek.rsm.domain.security.dao.LdapLoginModule</class>
            <control-flag>required</control-flag>
            <options>
                <option>
                    <name>debug</name>
                    <value>true</value>
                </option>
            </options>
        </login-module>
    </login-modules>
</application>
```

B

Appendix: RSM Database Schema Installer Screens

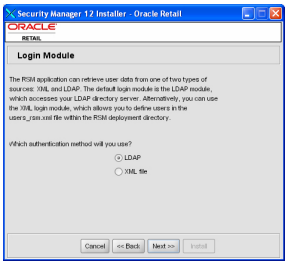
There are no databases changes for this release. Please refer to the RSM 12.0 database Installation Guide for more information about this section.

C

Appendix: RSM Application Installer Screens

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

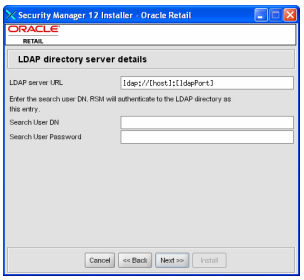
Screen: Login Module



Fields on this screen:

Field Title	Which authentication method will you use?
Field Description	Choose whether the RSM application will authenticate users against an LDAP directory or an XML file on the server.
Destination	security.properties, dao_rsm.xml
Example	LDAP
Notes	

Screen: LDAP directory server details



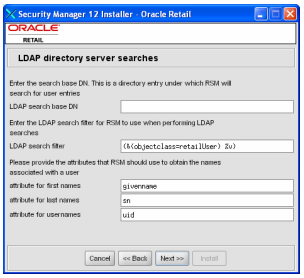
Fields on this screen:

Field Title	LDAP server URL
Field Description	URL for your LDAP directory server. See Appendix E: URL Reference for expected syntax.
Destination	security.properties
Example	ldap://myhost:389/
Notes	

Field Title	Search User DN
Field Description	Distinguished name of the user that RSM uses to authenticate to the LDAP directory.
Destination	security.properties
Example	cn=admin,dc=mycompany,dc=com
Notes	

Field Title	Search User Password
Field Description	Password for the search user DN.
Destination	security.properties
Notes	

Screen: LDAP server searches



Fields on this screen:

Field Title	LDAP search base DN
Field Description	Distinguished name of the LDAP directory entry under which RSM should search for users.
Destination	security.properties
Example	cn=Users,dc=mycompany,dc=com

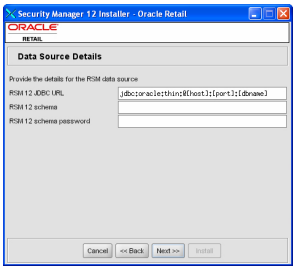
Field Title	LDAP search filter
Field Description	LDAP filter that determines which entries are returned to RSM when it conducts a directory search under the search base DN.
Destination	security.properties
Example	(&(objectclass=retailUser) %v)
Notes	

Field Title	attribute for first names
Field Description	LDAP attribute where RSM should look for a user's first name
Destination	security.properties
Example	givenname
Notes	

Field Title	attribute for last names
Field Description	LDAP attribute where RSM should look for a user's last name
Destination	security.properties
Example	sn
Notes	

Field Title	attribute for usernames
Field Description	LDAP attribute where RSM should look for a user's username
Destination	security.properties
Example	uid
Notes	

Screen: Data Source Details



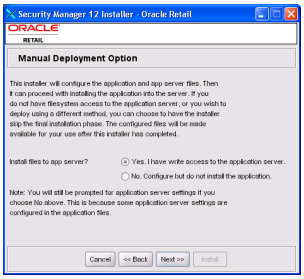
Fields on this screen:

Field Title	RSM 12 JDBC URL
Field Description	URL used by the RSM application to access the RSM database schema. See Appendix E: URL Reference for expected syntax.
Destination	data-sources.xml
Example	jdbc:oracle:thin:@myhost:1525:mydatabase
Notes	

Field Title	RSM 12 schema
Field Description	Database user where the RSM database schema was installed. This should match what was given in the RSM database user field of the RSM database installer.
Destination	data-sources.xml
Example	RSM12DEV
Notes	

Field Title	RSM 12 schema password
Field Description	Password for the JDBC username. This should match what was given in the RSM database password field of the RSM database installer.
Destination	data-sources.xml
Notes	

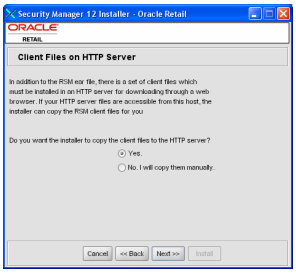
Screen: Manual Deployment Option



Fields on this screen:

Field Title	Install files to app server?
Field Description	If you do not have write access under ORACLE_HOME, you can still use the installer to gather your settings and configure the RSM files locally in the staging area. Then, at a later time, an administrator can manually copy over the RSM files and deploy the ear file. If you select this option, instructions are printed to the console and the installer log file for the steps needed to complete the installation.
Destination	
Example	
Notes	

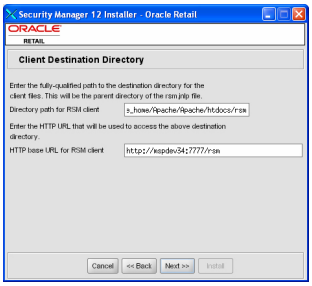
Screen: Client files on the HTTP server



Fields on this screen:

Field Title	Do you want the installer to copy the client files to the HTTP server?
Field Description	If the HTTP server that is serving the rsm.jnlp file is on the same host as the application server, then answer yes to this question so that the installer copies the client files to the HTTP server directories. The answer is usually yes since the RSM client files are usually installed to the Oracle Http Server that is a part of the same ORACLE_HOME as the OC4J instance running the RSM application. If the HTTP server is on a separate host, then you have to manually copy the client files over. Copy the contents of INSTALL_DIR/rsm/application/rsm12/client under a new folder on the HTTP server.
Notes	

Screen: Client Destination Directory



Fields on this screen:

Field Title	Directory path for RSM client
Field Description	This is the fully-qualified path to the location in the HTTP server where the RSM client files are to be installed. The directory provided will be the parent directory of rsm.jnlp. By default, this path points to an 'rsm' subdirectory of the document root of the Oracle Http Server that is a part of the AS10g installation (ORACLE_HOME/Apache/Apache/htdocs). This field is only shown if you selected "yes" to the previous question (Do you want the installer to copy the client files to the HTTP server?)
Example	/path/to/oracle/home/Apache/Apache/htdocs/rsm
Notes	

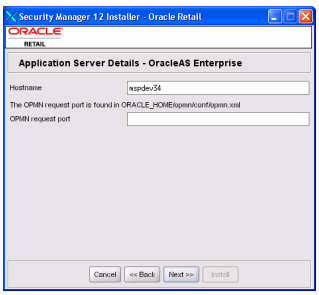
Field Title	HTTP base URL for RSM client
Field Description	URL which you can use to locate the RSM client files using a web browser. This URL should lead to the same directory that was given for the Directory path for RSM client field above. If you chose not to have the installer copy the client files over, this URL should point to the location where you will manually copy them after the installer has completed.. See Appendix E: URL Reference for expected syntax. This parameter can be changed later by modifying the *.jnlp files on the client side.
Destination	rsm.jnlp, rsmBC.jnlp, rsmconfig.jnlp
Example	http://myhost:7777/rsm
Notes	

Screen: OC4J Server Type: Managed or Standalone?

Fields on this screen:

Field Title	Which type of OC4J server are you deploying to?
Field Description	A managed OC4J server is part of a larger AS10g enterprise environment and is managed by OPMN. A standalone OC4J server is a single instance installed by itself and is not controlled by OPMN. This Oracle Retail application release is only supported on managed OC4J.
Example	managed
Notes	

Screen: Application Server Details – OracleAS Enterprise

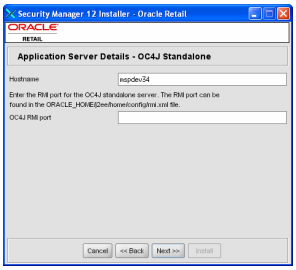


Fields on this screen:

Field Title	Hostname
Field Description	Hostname of the application server
Example	myhost
Notes	

Field Title	OPMN request port
Field Description	Port on which OPMN listens for requests to forward on to OC4J instances. This port can be found in the ORACLE_HOME/opmn/conf/opmn.xml file: <port local="6100" remote="6200" request="6003"/>
Example	6003
Notes	

Screen: Application Server Details – OC4J Standalone

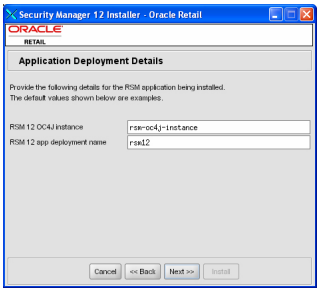


Fields on this screen:

Field Title	Hostname
Field Description	Hostname of the application server
Example	myhost
Notes	

Field Title	OC4J RMI port
Field Description	Port on which the standalone OC4J server listens for connections. This setting can be found in the ORACLE_HOME/j2ee/home/config/rmi.xml file. <rmi-server xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="http://xmlns.oracle.com/oracleas/schema/rmi-server-10_0.xsd" port="23791"
Example	23791
Notes	

Screen: Application Deployment Details

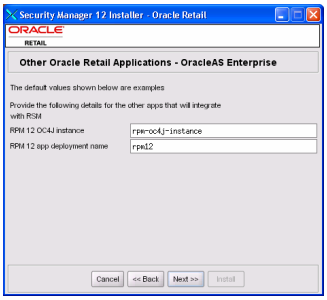


Fields on this screen:

Field Title	RSM 12 OC4J instance
Field Description	Name of the OC4J instance that was created for this RSM application.
Example	rsm-oc4j-instance
Notes	

Field Title	RSM 12 app deployment name
Field Description	Name by which this RSM application is identified in the application server
Example	rsm12
Notes	

Screen: Other Oracle Retail Applications – OracleAS Enterprise

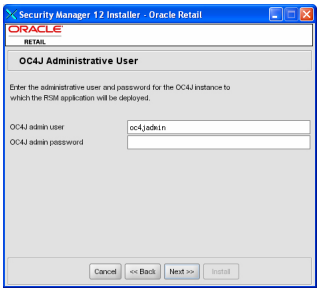


Fields on this screen:

Field Title	RPM 12 OC4J instance
Field Description	Name of the OC4J instance running the Price Management (RPM) application. RPM is optional for RSM.
Example	rpm-oc4j-instance
Notes	

Field Title	RPM 12 app deployment name
Field Description	Application deployment name for the RPM application.
Example	rpm12
Notes	

Screen: OC4J Administrative User

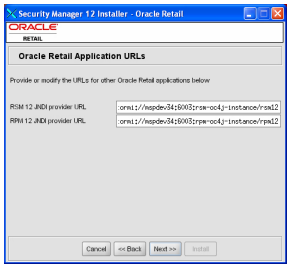


Fields on this screen:

Field Title	OC4J admin user
Field Description	Username of the admin user for OC4J instance to which the RSM application is being deployed.
Example	oc4jadmin
Notes	

Field Title	OC4J admin password
Field Description	Password for the OC4J admin user. You chose this password when you created the OC4J instance (managed OC4J) or when you started the instance for the first time (standalone OC4J).
Notes	

Screen: Oracle Retail Application URLs



Fields on this screen:

Field Title	RSM 12 JNDI provider URL
Field Description	URL which the RSM client uses to find the RSM application. See Appendix E: URL Reference for expected syntax.
Destination	rsm.jnlp, jndi_providers.xml
Example	opmn:ormi://myhost:6003:rsm-oc4j-instance/rsm12
Notes	

Field Title	RPM 12 JNDI provider URL
Field Description	URL which the RSM application uses to find the RPM application. See Appendix E: URL Reference for expected syntax.
Destination	jndi_providers_rpm.xml
Example	opmn:ormi://myhost:6003:rpm-oc4j-instance/rpm12
Notes	

D

Appendix: Installer Silent Mode

Repeating an Installation Attempt

In addition to the GUI and text interfaces of the RSM 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 re-use 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

E

Appendix: URL Reference

Both the database schema and application installers for the Security Manager product will ask for several different URLs. These include the following.

JDBC URL for a database

Used by the Java application and by the installer to connect to the database.

Syntax: jdbc:oracle:thin:@<host>:<port>:<sid>

- <host>: hostname of the database server
- <port>: database listener port
- <sid>: system identifier for the database

Example: jdbc:oracle:thin:@myhost:1521:mysid

LDAP server URL

Used by the Java application to connect to the LDAP directory.

Syntax: ldap://<host>:<port>

- <host>: hostname of the directory server
- <port>: LDAP server port

Example: ldap://myhost:389

HTTP URL for a WebStart client

Used within a web browser to access the application client.

Syntax: http://<host>:<port>/<path>

- <host>: hostname of the OracleAS environment
- <port>: HTTP port for the Oracle Http Server (OHS). This can be found in the Listen parameter in the ORACLE_HOME/Apache/Apache/conf/httpd.conf file, or in the output of opmnctl status –l.
- <path>: Path to the JNLP file, relative to the document root of the HTTP server. The document root for the Oracle Http Server is located at <ORACLE_HOME>/Apache/Apache/htdocs.

Example:

<ORACLE_HOME>/Apache/Apache/htdocs/rsm/rsm.jnlp

http://myhost:7777/rsm/rsm.jnlp

JNDI provider URL for an application

Used by the application client to access the application running in the server. Also used by other applications for server-to-server calls.

Syntax: opmn:ormi://<host>:<port>:<instance>/<app>

- <host>: hostname of the OracleAS environment
- <port>: OPMN request port of the OracleAS environment. This can be found in the <ORACLE_HOME>/opmn/conf/opmn.xml file.
- <instance>: Name of the OC4J instance running the application
- <app>: Deployment name for the application.

Example: opmn:ormi://myhost:6003:rsm-oc4j-instance/rsm12

Note: The JNDI provider URL can have a different format depending on your cluster topology. Consult the Oracle Application Server documentation for further details.

Deployer URI

Used by the Oracle ANT tasks to deploy an application to an OC4J instance. The application installer does not ask the user for this value; it is constructed based on other inputs and written to the ant.install.properties file for input to the installation script. For repeat installations using silent mode, you may need to correct mistakes in the deployer URI.

Note: There are several different formats for the deployer URI depending on your cluster topology. Consult the *Deploying with the OC4J Ant Tasks* chapter of the *OC4J Deployment Guide* for further details.

Syntax (managed OC4J): deployer:cluster:opmn://<host>:<port>/<instance>

- <host>: hostname of the OracleAS environment
- <port>: OPMN request port of the OracleAS environment. This can be found in the <ORACLE_HOME>/opmn/conf/opmn.xml file.
- <instance>: Name of the OC4J instance where the application will be deployed.

Example: deployer:cluster:opmn://myhost:6003/rsm-oc4j-instance

Syntax (standalone OC4J):

deployer:oc4j:<host>:<port>

- <host>: hostname of the OracleAS environment
- <port>: RMI port of the OC4J server. This can be found in the ORACLE_HOME/j2ee/home/config/rmi.xml file.

Example: deployer:oc4j:myhost:23791

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Appendix: Common Installation Errors

This section provides some common errors encountered during installation of RSM.

Database Installer Hangs on Startup

Symptom:

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

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

Solution:

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

Unreadable Buttons in the Installer

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

"Unable to get a deployment manager" Message

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 (see Appendix E: *URL Reference*), 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 D of this document).

“Could not create system preferences directory” Warning

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.