Oracle® Retail Back Office

Installation Guide

Release 14.0.1

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Oracle Retail Back Office Installation Guide, Release 14.0.1

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Value-Added Reseller (VAR) Language

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Contents

3   Installation using Microsoft Windows Server

4   Installation using Novell SLEPOS

E   Appendix: Common Installation Errors

F   Appendix: Installation Order

List of Figures

List of Tables

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Oracle Retail Back Office Installation Guide, Release 14.0.1

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- Did you understand the context of the procedures?
- Did you find any errors in the information?
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- 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).

> **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 Online Documentation available on the Oracle Technology Network web site. It contains the most current Documentation Library plus all documents revised or released recently.

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Preface

This Installation Guide describes the requirements and procedures to install this Oracle Retail Back Office release.

Audience

This Installation Guide is for the following audiences:

- System administrators and operations personnel

- Database administrators

- System analysts and programmers

- Integrators and implementation staff personnel

Documentation Accessibility

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

Access to Oracle Support

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

Related Documents

For more information, see the following documents in the Oracle Retail Back Office Release 14.0.1 documentation set:

- *Oracle Retail Back Office Release Notes*

- *Oracle Retail POS Suite Data Dictionary*

- *Oracle Retail POS Suite Data Model Differences*

- *Oracle Retail POS Suite Data Model ERWIN File*

- *Oracle Retail POS Suite Data Model Mapping File*

- *Oracle Retail POS Suite Entity Relationship Diagrams, Volume 1 - Subject Areas*

- *Oracle Retail POS Suite Implementation Guide, Volume 1 - Implementation Solutions*
- *Oracle Retail POS Suite Implementation Guide, Volume 5 - Mobile Point-of-Service*
- *Oracle Retail POS Suite Security 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, 14.0) or a later patch release (for example, 14.0.1). If you are installing the base release or additional patch releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch releases can contain critical information related to the base release, as well as information about code changes since the base release.

Improved Process for Oracle Retail Documentation Corrections

To more quickly address critical corrections to Oracle Retail documentation content, Oracle Retail documentation may be republished whenever a critical correction is needed. For critical corrections, the republication of an Oracle Retail document may at times not be attached to a numbered software release; instead, the Oracle Retail document will simply be replaced on the Oracle Technology Network Web site, or, in the case of Data Models, to the applicable My Oracle Support Documentation container where they reside.

This process will prevent delays in making critical corrections available to customers. For the customer, it means that before you begin installation, you must verify that you have the most recent version of the Oracle Retail documentation set. Oracle Retail documentation is available on the Oracle Technology Network at the following URL:

http://www.oracle.com/technetwork/documentation/oracle-retail-100266.html

An updated version of the applicable Oracle Retail document is indicated by Oracle 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 a document with part number E123456-01.

If a more recent version of a document is available, that version supersedes all previous versions.

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/technetwork/documentation/oracle-retail-100266.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

The following text conventions are used in this document:

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

1

Preinstallation Tasks

This chapter describes the requirements that must be met before Oracle Retail Back Office can be installed. Three stacks are supported for this release.

> **Note:** These are the configurations that were tested for this release. While Back Office may work in other configurations, these configurations were tested.

If you are installing multiple Oracle Retail applications, see Appendix F for a guideline for the order in which the applications should be installed.

Requesting Infrastructure Software

If you are unable to find the necessary version of the required Oracle infrastructure software (database server, application server, WebLogic, and so on) on the Oracle Software Delivery Cloud, you should file a non-technical 'Contact Us' Service Request (SR) and request access to the media. For instructions on filing a non-technical SR, see My Oracle Support Note 1071023.1 - *Requesting Physical Shipment or Download URL for Software Media*.

Check Supported Database Server Requirements

Table 1–1 lists the general requirements for a database server running Oracle Retail Back Office and the versions supported for this release.

Table 1–1 Database Server Requirements

Supported on	Stack 1	Stack 2
Operating System	Microsoft Windows 2008 Server R2 Standard Edition (64-bit)	Novell SLEPOS11 SP2 (64-bit)
Database	Oracle Database 11gR2 Standard Edition 11.2.0.4 (64-bit) **Note:** Oracle Retail Back Office is not certified with Real Application Clusters (RAC).	Oracle Database 11gR2 Standard Edition 11.2.0.4 (64-bit) **Note:** Oracle Retail Back Office is not certified with Real Application Clusters (RAC).

> **Note:** It is recommended that separate tablespaces are used for tables and indexes. This may improve performance when accessing the database.

Required Setting for Database Installation

During database creation, the database must be set to AL32UTF8.

Check Supported Application Server Requirements

Table 1–2 lists the general requirements for an application server capable of running Back Office and the versions supported for this release.

Table 1–2   Store Server Requirements

Supported on	Stack 1	Stack 2
Operating System	Microsoft Windows 2008 Server R2 Standard Edition (64-bit)	Novell SLEPOS11 SP2 (64-bit)
J2EE Application Server	Oracle WebLogic 10.3.6.0 Standard Edition (32-bit)	Oracle WebLogic 10.3.6.0 Standard Edition (32-bit)
	Note: To install Oracle WebLogic with the supported version, use the Oracle WebLogic generic installer. For more information, see the Oracle WebLogic installation documentation.	**Note:** To install Oracle WebLogic with the supported version, use the Oracle WebLogic generic installer. For more information, see the Oracle WebLogic installation documentation.
J2EE Application Server JVM	Oracle Java 7 or later within the Java 7 code line	Oracle Java 7 or later within the Java 7 code line
Messaging Provider	included in Oracle WebLogic (32-bit)	included in Oracle WebLogic (32-bit)
System Management Agents	OEM Agents	OEM Agents

> **Note:** Back Office does not support a clustered environment.

Check for SSL Certificate

Oracle Retail Back Office is accessed through a secure HTTP connection. The installation of an SSL Certificate is required on your application server. If the certificate is not installed, warnings are displayed when trying to access Oracle Retail Back Office.

For information on installing the SSL Certificate, refer to your application server documentation.

Check that the Fonts Needed for Reports are Installed

To correctly export reports from Oracle Retail Back Office to a PDF file, any fonts used in the PDF must exist in the application server JVM. To install fonts to the application server:

1. Stop the application server.

2. Copy any needed fonts to the library folder of the JRE used by the application server. The following is an example of the path name to the folder:

   ```
   <JDK Install Directory>\jre\lib\fonts
   ```

3. Start the application server.

Check Supported Oracle Retail Products

Table 1–3 lists the Oracle Retail products that are supported.

Table 1–3   Supported Oracle Retail Products

Integrates with	Version
Oracle Retail Central Office	14.0.1
Oracle Retail Merchandising System	14.0.1
Oracle Retail Point-of-Service	14.0.1
Oracle Retail Price Management	14.0.1
Oracle Retail Returns Management	14.0.1

Check Additional Oracle Technologies

Table 1–4 lists the Oracle technologies used by Oracle Retail Back Office and the required versions.

Table 1–4   Additional Oracle Technologies

Integrates with	Version
Oracle Business Intelligence Publisher for Retail Back Office	11.1.1.6 **Note:** This software is included in the Back Office distribution.
Oracle Java Persistence API (JPA)	2.5

Check Supported Client PC and Web Browser Requirements

The general requirements for the client system include Adobe Acrobat Reader or another application capable of rendering Portable Data Format (PDF) files.

The following web browsers are supported on Microsoft Windows 7:

- Microsoft Internet Explorer 9 and 11
- Mozilla Firefox ESR 24

Hardware Requirements

Specific hardware requirements for the machines running Oracle Retail Back Office depend on variables including the number of users and other applications running on the same machine.

Please note the following about the hardware requirements:

- The CPU requirement depends on variables including the operating system and middleware selected.
- Memory requirements and performance depend on variables including the number of active promotions and best deal calculations when Back Office is installed on the same machine as the Point-of-Service server.
- Disk size can vary based on the operating system and middleware requirements as well as the amount of data storage needed. Data storage depends on variables including the number of items and promotions defined, data retention period, and so on.

You need to determine your hardware requirements, based on the variables mentioned here, as well as any additional variables specific to your environment.

Implementation Guidelines for Security

> **Note:** A demonstration trust store is bundled with Oracle WebLogic. It is recommended that the demonstration trust store is replaced with a secure trust store.
>
> It is also recommended that the passwords for key stores and trust stores are changed from the values set by default. If this is not done, the system could be vulnerable to access by any unauthorized user with knowledge of the default passwords.

For information on implementing security, see the *Oracle Retail POS Suite Security Guide*. This guide describes specific security features and implementation guidelines for the POS Suite products.

Uptake Installation

This installation guide details the steps needed to perform a full installation of Oracle Retail Back Office Release 14.0.1. For migrating from a previous release to 14.0.1, uptake assistance tools are provided for migrating the database and code.

An uptake of Oracle Retail Back Office from the following releases to Release 14.0.1 can be done:

- Oracle Retail Back Office Release 12.0.0
- Oracle Retail Back Office Release 12.0.9
- Oracle Retail Back Office Release 13.0.1
- Oracle Retail Back Office Release 13.0.2
- Oracle Retail Back Office Release 13.1.1
- Oracle Retail Back Office Release 13.2.0
- Oracle Retail Back Office Release 13.3.0
- Oracle Retail Back Office Release 13.4.0
- Oracle Retail Back Office Release 14.0

To assist in the uptake of Oracle Retail Back Office from one of these releases to Release 14.0.1, tools are available on My Oracle Support.

The following document is available through My Oracle Support. Access My Oracle Support at the following URL:

https://support.oracle.com

Oracle Retail POS Suite Uptake Guide **(Doc ID: 1625543.1)**

This guide contains the following information:

- List of the impacts of the Release 14.0.1 functional changes on the database schema.
- Description of the tools available to assist in the uptake of the database and code.

2

Secure Configuration

This chapter serves as a guide for administrators and anyone installing the product to securely configure Oracle Retail Back Office. To see a broader spectrum of suggested security-related practices for this application, see the *Oracle Retail POS Suite Security Guide*.

> **Note:** All the Oracle Retail POS Suite applications should follow the same practices for configuring a secure environment.

This chapter is intended for security administrators and anyone installing the products who will deploy and configure the Oracle Retail POS Suite applications. These users perform the following tasks:

- Install and deploy the applications
- Configure the applications
- Apply patches to the applications

It is assumed that the readers of this chapter have a general knowledge of administering the underlying technologies and the Back Office application.

This chapter begins with the operating system and moves through the supporting middleware to the Back Office application, and its connections with other resources.

> **Note:** The options set by default for the installer are the most secure selection. If you choose to not use any of the default selections, you need to consider the implications of that change on the security of your installed product.

Any references to Payment Card Industry Data Security Standard (PCI-DSS) requirements are from PCI-DSS version 2.0.

Operating System

To see the operating systems and browsers supported for this release of Back Office, see Chapter 1.

The Release 14.0.1 Oracle Retail POS Suite applications do not rely on insecure services or protocols. If the retailer or systems integrator customizes or extends the applications, these extensions must not rely on insecure services or protocols.

When using Microsoft Windows 7, the system restore point must be disabled. This restore point may possibly contain sensitive data (test or real) in previous versions of the operating system. To disable the system restore point:

1. Open the Control Panel.

2. Select **System** and then **System protection**. The System Properties window is displayed.

3. Under Protection Settings, select **Configure**.

4. Under Restore Settings, select **Turn off system protection** and click **OK**.

For more information about securing services and protocols, see the *Oracle Retail POS Suite Security Guide*.

Additional Resource

The Center for Internet Security has published benchmarks for securing your systems at the operating system level. You can find the benchmarks at the following links:

- Microsoft Windows 2008 Server:

  http://benchmarks.cisecurity.org/en-us/?route=downloads.browse.cate
  gory.benchmarks.os.windows.2008

- SUSE Linux (SLEPOS):

  http://benchmarks.cisecurity.org/en-us/?route=downloads.browse.cate
  gory.benchmarks.os.linux.suse

Infrastructure/Middleware

To see the database and application server supported for this release of Back Office, see Chapter 1.

Database

For recommendations on securing the database as well as JDBC communications between the POS Suite applications and the database, see the *Oracle Retail POS Suite Security Guide*.

Do not store sensitive data on Internet-accessible systems. For example, your web server and database server must not be on the same physical server. Oracle Retail POS Suite applications do not require the database server and web server to be hosted on the same physical server machine.

For information about secure configuration of Oracle Database, see the *Oracle Database 2 Day + Security Guide*. The guide is available at the following link on the Oracle Technology Network web site:

http://download.oracle.com/docs/cd/E11882_01/server.112/e10575.pdf

Application Server

For information about secure configuration of Oracle WebLogic Application Server, see the following documentation available at the following links on the Oracle Technology Network web site:

- Security for Oracle WebLogic Server 11g Release 1:

  http://docs.oracle.com/cd/E23943_

01/web.1111/e14529/security.htm#INRMP200

■ *Oracle Fusion Middleware Securing a Production Environment for Oracle WebLogic Server*:

http://download.oracle.com/docs/cd/E17904_01/web.1111/e13705.pdf

Messaging

Secure JMS messaging configuration is specific to the application server. For information about securing the JMS messaging on Oracle WebLogic, see the *Oracle Retail POS Suite Security Guide*.

The Release 14.0.1 Oracle Retail POS Suite applications do not permit a user to send unencrypted sensitive data by end-user messaging technologies, such as e-mail. If you customize an application to permit sending sensitive data, by end-user messaging technologies, you must use a solution that renders the sensitive data unreadable or implements strong cryptography.

Back Office can send notifications of the results of a scheduled job to a designated e-mail address. The e-mail contains the job name entered by the end user. Therefore, the user must take care that the scheduled job name does not contain sensitive data.

Network Considerations

For recommendations on securing the network and other enterprise security considerations, see the *Oracle Retail POS Suite Security Guide*.

Oracle Retail POS Suite Application Configuration

This section covers secure configuration that is recommended for all Oracle Retail POS Suite applications.

Technology Considerations

These technologies should be considered.

Wireless Technology

Oracle Retail POS Suite applications are not designed as wireless applications. If wireless technology is used, you must adhere to PCI-DSS compliant wireless settings, per PCI-DSS Requirements 1.2.3, 2.1.1, and 4.1.1.

Application Specific Settings

The Release 14.0.1 Oracle Retail POS Suite applications enable out-of-the-box audit logging by default. These logs should not be disabled.

Application log files are configurable. If you modify the settings, you must ensure they are compliant with PCI-DSS requirements 10.2 and 10.3.

The POS Suite applications implement automated audit trails for all system components to reconstruct the following events:

■ All actions taken by any individual with administrative privileges as assigned in the application

■ Access to application audit trails managed by or within the application

■ Invalid logical access attempts

- Use of application's identification and authentication mechanisms

- Initialization of the application audit logs

- Creation and deletion of system-level objects within or by the application

The Release 14.0.1 Oracle Retail POS Suite applications implement an automated audit trail logging of various events happening on the system. The audit trail logging is configured in the log4j configuration file maintained for each application. The various events that need to be logged and the file where the audit logging information will be captured are configured in the log4j configuration file.

> **Caution:** Do not comment out any of the entries or prevent the logging from occurring.

For each event, the Oracle Retail Audit log service logs the point of Origination of the event. In addition, the audit log framework logs the Initialization of the Audit log itself.

The log files are created with the following names and in following locations:

File Name: BackOffice_audit.log

Location when Back Office is deployed to an admin server or managed server:

```
<WEBLOGIC_INSTALL_DIR>\user_projects\domains\<Domain Name>\servers\<Server
Name>\logs
```

The following events should be captured at the system level:

- Login or logoff

- Start or stop a process

- Use of user rights

- Account administration

- Change the security policy

- Restart and shut down the system

- USB events and Mount andUnmount events

- Access a file or directory (create a file, remove a file, read a file, or change file descriptors)

Various tools are available to collect audit trail information. Audit trails should be maintained for the applications and for external system events.

Application Runtime Settings

After installation, these settings should be used.

Application Parameters

Set these application parameters before running Back Office.

Temporary Password Length The Temporary Password Length parameter is used to determine the length of system generated temporary passwords. This parameter resides in the application XML parameter file.

> **Caution:** This parameter can be set to generate passwords to have a length between 7 and 12 characters. In order to comply with PCI-DSS section 8.5.10, the Oracle Retail POS Suite applications must not be modified to allow fewer than 7 characters.

Database Configuration Password policy settings are configured through the database. By default, the password policy is compliant with PCI-DSS section 8.5.

> **Caution:** If you change the password policy, ensure the modified settings comply with the PCI-DSS.

Integration with Other Applications

The Oracle Retail POS Suite applications integrate through the use of web services. For information about securing this interface protocol, see the *Oracle Retail POS Suite Security Guide*.

Scripts and Command Line Utilities

This section covers scripts and utilities used after installation.

Purge Scripts

The Release 14.0.1 Oracle Retail POS Suite applications come with stored procedures and scripts that permit a DBA to purge the databases of data that the retailer determines are no longer necessary to store. Access to these scripts should be restricted. For more information about the purge scripts, see the *Oracle Retail POS Suite Security Guide*.

3

Installation using Microsoft Windows Server

Before proceeding, you must install the database and application server software. For a list of supported versions, see Chapter 1.

During installation, the Back Office database schema will be created and the Back Office application will be deployed to an Oracle WebLogic domain. When the domain was created, the JDK was selected. This is the JDK that is used to run the Back Office application. For the remainder of this chapter, the JDK installation directory is referred to as *<JDK_INSTALL_DIR>*.

Upgrade Oracle WebLogic to the Required JPA Version

Before installing Back Office, upgrade WebLogic with the latest version of the JPA jars that are tested with Back Office. The jars are shipped with the Back Office installer and are available in the ORBO-14.0.1.zip file. After extracting the zip file, the jars are available in the following folder:

<staging_directory>\backoffice\lib\thirdparty

For information on extracting the zip file, see "Expand the Back Office Distribution".

The following JPA jar files need to be upgraded:

- eclipselink.jar
- javax.persistence_2.1.0.v201304241213.jar

To upgrade the JPA jar files:

1. Copy the two jar files from *<staging_directory>*\backoffice\lib\thirdparty to the *<WebLogic_HOME>*\modules directory.

2. To set the CLASSPATH, edit commEnv.cmd in the *<WebLogic_HOME>*\wlserver_10.3\common\bin directory:

   ```
   set PRE_CLASSPATH=%MODULES_DIR%\javax.persistence_
   2.1.0.v201304241213.jar;%MODULES_DIR%\eclipselink.jar
   ```

3. After setting the variable, look on the console and make sure the jars are added to the CLASSPATH. If they are not added, shut down WebLogic and add the jars to the WEBLOGIC_CLASSPATH variable in the same file.

Create a New WebLogic Domain for Back Office

You can skip this section if you are manually redeploying to an existing domain.

The Back Office application must be deployed to its own dedicated domain. For information on how to perform the following steps, consult your Oracle WebLogic Server documentation.

Server Name Considerations

Each server instance in your WebLogic environment must have a unique name, regardless of the domain in which it resides, or whether it is an Administration Server or a Managed Server. Within a domain, each server, machine, virtual host, and any other resource type must be named uniquely and must not use the same name as the domain.

> **Note:** Back Office, Central Office, Returns Management, and the Mobile Point-of-Service server must have all unique domain names and server names in order to integrate successfully.

Enabling Trust Between WebLogic Server Domains

The WebLogic Server enables you to establish global trust between two or more domains. You do this by specifying the same Domain Credential for each of the domains. By default, the Domain Credential is randomly generated and therefore, no two domains have the same Domain Credential. During installation, the WebLogic domain credential is configured to the value entered in the Domain Details installer window. For more information, see Figure A–23.

> **Note:** All domains running Oracle Retail applications must have the same domain credentials.

WebLogic Domain Startup Mode

WebLogic can be run in production mode or development mode.

Boot Identity Files

When a domain is created in development mode using the Configuration Wizard, a boot identity file, named `boot.properties`, is created in the Administration Server's root directory. The boot identity file contains an encrypted version of the user name and password which lets you bypass the login prompt during instantiations of the server. In production mode, WebLogic prompts for credentials on the command line.

To install Back Office on a domain using production mode, you must first create a boot identity file so that the Administration Server can bypass the prompt for user name and password when the installer restarts the server.

Consult your WebLogic documentation for more information and options for creating boot identity files. Following is an example of one method, that can be used after domain creation, to create the boot identity file:

1. Start the Administration Server at least once and provide the user credentials on the command line.

2. Create the Administration Server's security directory, if it does not already exist.

   ```
   <WEBLOGIC_INSTALL_DIR>\user_
   projects\domains\<orbo-domain>\servers\<AdminServerName>\security
   ```

3. Place the following two lines in a file named `boot.properties` in the `security` directory:

```
password=<password>
username=<username>
```

> **Note:** There should be no spaces on either side of the equal sign.

4. Stop and restart the Administration Server to verify that the credential prompts are bypassed.

Secure Sockets Layer

Back Office is accessed through a secure HTTP connection. Enable the Secure Sockets Layer (SSL) when creating the domain and set the listen port and SSL list port number so that the numbers are unique for each domain in your configuration.

Verify that the domain's administrative server is started and in running mode.

Managed Servers

When a domain is created with a managed server using the Oracle JDK, the default WebLogic settings may leave the server without enough memory to configure and stop the running managed server. A careful inspection of the log files may indicate an out-of-memory exception.

To avoid the out-of-memory exceptions, increase the PermSize space:

1. In the WebLogic Administration console, under Environments, select Servers.

2. In Summary of Servers, select *<managedServerName>*.

3. In Settings, select the Server Start tab.

4. In the Arguments text box, add the following if it does not already exist:

```
-Xms512m -Xmx512m -XX:PermSize=512m -XX:MaxPermSize=512m
```

Before launching the Back Office installer, create a directory for the persistent store:

```
<WEBLOGIC_INSTALL_DIR>/user_
projects\domains\<orbo-domain>\servers\<ManagedServerName>\data\store\orbo-persist
ent-store
```

General Steps for Creating a New Domain

In addition to specific steps previously described, you can use the following steps to create a new domain using the WebLogic Configuration Wizard:

1. Log on to the server, which is running your WebLogic installation, as the user who owns the WebLogic installation.

2. Launch the Weblogic Configuration Wizard.

3. Select **Create a new WebLogic Domain**. The domain can be a basic WebLogic server domain.

4. Choose a unique name for the new domain. In the remainder of this installation guide, *<orbo-domain>* is used for the name.

5. Configure the administrator user name and password.

6. Configure the server start mode and JDK.

7. Configure the Administration Server.

Before launching the Back Office installer:

1. If using a Managed Server, start the Managed Server.

2. Start the Administration Server.

3. Verify that all servers in the domain are started and in running mode.

Deploying to a Managed Server

If you are deploying Back Office to a managed server, note the following:

If any of the servers are remote from the admin server, copy the contents of the `domain\lib` directory to the corresponding directory on the remote systems. Also, a directory for the persistent store needs to be created on the remote systems. It should be located in the following location:

```
<WEBLOGIC_INSTALL_DIR>\user_
projects\domains\<orbo-domain>\servers\<serverName>\data\store\orbo-persistent-sto
re
```

Create the Database Schema Owner and Data Source Connection Users

The following recommendations should be considered for schema owners:

- Database administrators should create an individual schema owner for each application, unless the applications share the same data. In the case of Oracle Retail Back Office and Point-of-Service, the database schema owner is the same because these applications share a database.

- The schema owners should only have enough privileges to install the database.

For information on the best practices for passwords, see the *Oracle Retail POS Suite Security Guide*.

> **Note:** Do not delete the database schema owner after installation. When using Data Import (DIMP), the schema owner privileges are needed for DIMP processing which includes creating and dropping tables. For information on DIMP, see "Enable Data Import".

To create the database schema owner and data source connection users:

1. Log in using the database administrator user ID.

2. Create a role in the database to be used for the schema owner.

   ```
   CREATE ROLE <schema_owner_role>;
   ```

3. Grant the privileges, shown in the following example, to the role.

   ```
   GRANT CREATE TABLE, CREATE VIEW, CREATE SEQUENCE, CREATE PROCEDURE, ALTER
   SESSION, CONNECT TO <schema_owner_role>;
   ```

4. Create a role in the database to be used for the data source user.

   ```
   CREATE ROLE <data_source_role>;
   ```

5. Grant the privileges, shown in the following example, to the role.

```
GRANT CONNECT, CREATE SYNONYM TO <data_source_role>;
```

> **Note:** After the product is installed successfully, the CREATE SYNONYM privilege must be revoked from the data source role. Before the installer exits, it prompts for a database administrator to revoke the privilege.

6. Create the schema owner user in the database.

```
CREATE USER <schema_username>
IDENTIFIED BY <schema_password>
DEFAULT TABLESPACE users
TEMPORARY TABLESPACE TEMP
QUOTA UNLIMITED ON users;
```

7. Grant the schema owner role to the user.

```
GRANT <schema_owner_role> TO <schema_username>;
```

8. Create the data source user.

```
CREATE USER <data_source_username>
IDENTIFIED BY <data_source_password>
DEFAULT TABLESPACE users
TEMPORARY TABLESPACE TEMP
QUOTA UNLIMITED ON users;
```

9. Grant the data source role to the user.

```
GRANT <data_source_role> TO <data_source_username>;
```

The installer grants the data source connection user access to the application database objects. If you choose **No** in the Manual Deployment Option window, you need to grant the access after the installer completes. For more information, see "Manual Deployment of the Back Office Application".

Expand the Back Office Distribution

To extract the Back Office files:

1. Extract the Back Office 14.0.1 distribution zip file.

2. Create a new staging directory for the Back Office application distribution (ORBO-14.0.1.zip) file, for example, C:\tmp\j2ee\<orbo-domain>\orbo-staging.

> **Note:** The staging area (<staging_directory>) can exist anywhere on the system. It does not need to be under tmp.

3. Copy or upload ORBO-14.0.1.zip to <staging_directory> and extract its contents. The following files and directories should be created under <staging_directory>\ORBO-14.0.1:

```
ant\
ant-ext\
antinstall\
backoffice\
external-lib\
```

```
installer-resources\
retail-public-security-api\
.postinstall.cmd
.postinstall.sh
.preinstall.cmd
.preinstall.sh
antinstall-config.xml
build.xml
build-common.xml
build-common-backoffice.xml
build-common-esapi.xml
build-common-oas.xml
build-common-retailinv.xml
build-common-was.xml
build-common-webapps.xml
build-common-wl.xml
build-test.cmd
checkdeps.cmd
checkdeps.sh
install.cmd
install.sh
prepare.xml
revokesyn.sql
wallet.xml
```

For the remainder of this chapter, `<staging_directory>`\ORBO-14.0.1 is referred to as `<INSTALL_DIR>`.

Set Up for Integration with Central Office and Returns Management

You select the applications that Oracle Retail Back Office is integrated with in the Integrate Applications window. See Figure A–7. If Central Office or Returns Management is selected in the window, that application must be running in order for the Back Office files to be installed correctly.

Enable Data Import

Data Import (DIMP) is used by external systems to send data bundles to Back Office for routine data loading of certain types of data. To use DIMP, you need to create a directory for the incoming bundles and a directory where the bundles are archived after being processed.

In the Enable DIMP installer window, you select whether DIMP will be used. See Figure A–11. If **Yes** is selected in the window, you then provide the paths to the directories in the DIMP Configuration installer window. See Figure A–12.

For detailed information on DIMP, see the *Oracle Retail POS Suite/Merchandising Products Implementation Guide*.

Enable Cross Version Support

A retailer may want to use DIMP with Release 14.0.1 of the POS Suite applications but with an earlier release of the Oracle Retail Merchandising Operations Management products. Cross version support enables this integration.

In the Enable Cross Version for DIMP installer window, you select whether cross version support is enabled. See Figure A–13. If **Yes** is selected in the window, you then

provide the information needed for cross version support in the Cross Version Compatibility Configuration installer windows. See Figure A–14 and Figure A–15.

For detailed information on cross version support, see the *Oracle Retail POS Suite Implementation Guide, Volume 1 - Implementation Solutions*.

Installation Options

During installation, there are options that enable you to select whether the installer completes parts of the installation or if you want to complete those parts manually. For information on the available options, see the following sections:

- "Install Database Options"
- "Manual Deployment of the Back Office Application"
- "Install Parameters"

Install Database Options

The database schema must be created and populated before configuring the application server. In the Install Database Option window, you select whether the installer creates and populates the database schema or if you want to do this manually. See Figure A–16.

- If you choose **Create schema with sample dataset**, the installer creates and populates the database schema with sample data, such as item data. This is the default selection in the window. The sample dataset includes the minimum dataset and report configuration data. If you want data available to use for demonstrating Back Office functionality after installation, you can select this option.

  To use this option, you must provide the location of the zip file containing the sample dataset in the Sample Dataset installer window. See Figure A–17. You can obtain the `sample-dataset-14.0.1.zip` file from the Oracle Software Delivery Cloud at the following web site:

  https://edelivery.oracle.com/

- If you choose **Create schema with minimum dataset**, the installer creates and populates the database schema with the minimum amount of data needed to launch and run Back Office. The minimum dataset includes report configuration data. If you want to load your own data after installation, you can select this option.

- If you choose **Skip schema creation and data loading**, the installer does not create and populate the database schema. You choose this option if you want to create and populate the database schema manually. For information on manually creating and populating the database schema, see "Manually Create the Database Schema".

> **Note:**   If Back Office is being installed for the first time and a clean schema is being used, do not select the **Skip schema creation and data loading** option. The installer will fail at some point if there is no data available in the database. You must populate the database schema before running the installer by selecting one of the other options.
>
> If the schema is already populated and you want to manually restore or update the data, select the **Skip schema creation and data loading** option.

Manually Create the Database Schema

To manually create and populate the database schema:

1. Change to the *<INSTALL_DIR>*\backoffice\db directory.

2. Set the JAVA_HOME and ANT_HOME environment variables.

   ```
   SET JAVA_HOME=<JDK_INSTALL_DIR>\jre
   SET ANT_HOME=<INSTALL_DIR>\ant
   ```

3. Add %JAVA_HOME%\bin and %ANT_HOME%\bin to the front of the PATH environment variable.

   ```
   SET PATH=%JAVA_HOME%\bin;%ANT_HOME%\bin;%PATH%
   ```

4. Expand the backofficeDBInstall.jar file.

   ```
   jar -xvf backofficeDBInstall.jar
   ```

5. If you are using sample data, enter the path to the sample dataset file. Use forward slashes in the path:

   ```
   # identifies the sample dataset file
   dataset.sample.zip=FILE_DATASET_SAMPLE
   ```

6. Modify db.properties.

   a. Uncomment the Oracle properties and comment out the properties for the other vendors.

   b. In the Oracle properties, update the settings to the following:

   ```
   db.product=jdbc
   db.version=11.2.0.4
   ```

   c. Set the following properties with your database settings. The values to be set are shown in bold in the examples.

   Set the hash algorithm, for example, to SHA-256.

   ```
   # Hash Algorithm
   inst.hash.algorithm=HASH_ALGORITHM
   ```

   Enter the values for the users shown in bold in the following example:

   ```
   inst.app.admin.user=my-bo-admin-user
   inst.app.admin.password-encrypted=

   db.user=DB_USER_ID
   db.password-encrypted=
   ```

```
db.owner.user=DB_OWNER_USER_ID
db.owner.password-encrypted=
```

Before running the ant target to encrypt the passwords, clear the encrypted password entries as shown in the preceding examples. The ant target prompts for the passwords. Run the following ant target to encrypt the passwords:

```
ant -f db.xml encrypt-webapp-passwords
```

Enter the values for the URL used by the Back Office application to access the database schema. See Appendix D for the expected syntax:

```
db.jdbc-url=jdbc:oracle:thin:@DB_HOST_NAME:1521:DB_NAME
```

If you are using a service name, the URL has the following format:

```
db.jdbc-url=jdbc:oracle:thin:@DB_HOST_NAME:1521/SERVICE_NAME
```

Enter the value for the store ID shown in the following example:

```
configured.store.id=04241
```

Enter the value for the supported locales shown in the following example:

```
gen.locales=fr,zh
```

Add a default locale as shown in bold in the following example:

```
mock.locales=none
default.locale=en_US
```

d. If VAT is used, set value to true:

```
tax.enableTaxInclusive=false
```

e. Add entries for tablespaces. If you are using the default tablespaces, leave the name blank:

```
db.table.space=pos_data_ts
db.index.table.space=pos_indx_ts
```

f. Set the host name and rmi port number for the `parameters.apphost` property to point to your Back Office installation.

```
parameters.apphost=t3://<hostname>:<port_number>
```

g. In the `parameters.classpath` property, replace the semicolons used as separators with colons. This is needed to run with Linux systems.

h. To enable VAT functionality, uncomment the tax.enableTaxInclusive property in the tax properties section.

i. If loading sample data, replace FILE_DATASET_SAMPLE with the full path and file name for the sample dataset zip file.

```
dataset.sample.zip=FILE_DATASET_SAMPLE
```

7. Run one of the available Ant targets to create the database schema and load data.

■ load_sample: creates the database schema containing the sample dataset. The sample dataset includes the minimum dataset and report configuration data.

To use this option, you must provide the location of the zip file containing the sample dataset. You can obtain the `sample-dataset-14.0.1.zip` file from the Oracle Software Delivery Cloud at the following web site:

https://edelivery.oracle.com/

- load_minimum: creates the database schema containing the minimum dataset. The minimum dataset includes report configuration data.

- load_reports: loads report configuration data.

For example: `ant load_sample`

To specifically load the report configuration data, use the following command: `ant -f db.xml load_reports`

Secure the JDBC for the Oracle 11g Database

In the Enable Secure JDBC window, you select whether secure JDBC will be used for communication with the database. See Figure A–9.

- If **Yes** is selected, the installer sets up the secure JDBC.

- If **No** is selected and you want to manually set up the secure JDBC after the installer completes, see the *Oracle Retail POS Suite Security Guide*.

Run the Back Office Application Installer

A WebLogic domain must be configured and started before you can run the Back Office application installer. This installer will configure and deploy the Back Office application.

> **Note:** To see details on every window and field in the application installer, see Appendix A.

1. Change to the *<INSTALL_DIR>* directory.

2. Set the JAVA_HOME environment variable. JAVA_HOME should point to *<JDK_INSTALL_DIR>*.

> **Note:** The installer is not compatible with versions of Java earlier than Java 7.

3. Set the account of the user running the installer to run as an administrator. Set the account using Microsoft Windows 2008 Server.

4. Run the `install.cmd` script. This will launch the installer. After installation is complete, a detailed installation log file is created: `orbo-install-app.<timestamp>.log`.

> **Note:** The usage details for install.cmd are shown below. The typical usage for GUI mode does not use arguments.
>
> `install.cmd [text | silent weblogic]`

The installer leaves behind the `ant.install.properties` and `cwallet.sso` files for repeat installations.

5. After the installation is successfully completed, the CREATE SYNONYM privilege must be revoked. In the installer console window, it prompts for a database administrator to run the revokesyn SQL script to revoke the privilege. The script is found in the `<INSTALL_DIR>` directory.

Figure 3–1   Installer Prompt to Run revokesyn

For information on granting this privilege, see "Create the Database Schema Owner and Data Source Connection Users".

Replace the ojdbc6 Jar File in the WebLogic Installation

After the installation of Back Office is complete, the ojdbc6 jar file in the WebLogic installation must be replaced with the ojdbc6 jar included with Back Office.

To replace the ojdbc6 jar:

1. Stop the application server.

2. Copy the `ojdbc6.jar` file from `<INSTALL_DIR>\backoffice\configured-output\db\lib` to the `<WebLogic_HOME>\wlserver_10.3\server\lib` directory.

3. Start the application server:

   - If Back Office is deployed to an admin server, start the application server for the admin server.

   - If Back Office is deployed to a managed server, start the application server for the managed server.

Resolve Errors Encountered During Application Installation

If the application installer encounters any errors, it will halt execution immediately. You can run the installer in silent mode so that you do not have to reenter the settings for your environment. For instructions on silent mode, see Appendix B.

For a list of common installation errors, see Appendix E.

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

Disabled Non-SSL Port

You can choose to disable the non-SSL port in the Turn Off the Application Server's Non-SSL Port window. See Figure A–42. If you select Yes in the window, you must delete the transaction log files.

To delete the files:

1. Stop the application server.

2. Delete the transaction log files:

   ```
   <orbo-domain>\server\<serverName>\data\store\default\WLS*.dat
   <orbo-domain>\server\<serverName>\data\store\or*-persistent-store\*.dat
   ```

3. Start the application server:

   ■ If Back Office is deployed to an admin server, start the application server for the admin server.

   ■ If Back Office is deployed to a managed server, start the application server for the managed server.

For more information, see the following web site. Refer to the *Moving a Server* section.

http://download.oracle.com/docs/cd/E12839_
01/web.1111/e13731/trxman.htm#i1053371

Manual Deployment of the Back Office Application

Skip this section if you chose the default option of allowing the installer to complete installation to the application server in the Manual Deployment Option window. See Figure A–38.

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>\backoffice\configured-output\`.

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

■ To deploy using the ant target:

> **Note:** The application server's non-SSL listen port must be enabled before running the ant target described here. The non-SSL listen port can be enabled using the WebLogic Admin Console. After these steps are completed, the non-SSL listen port can be disabled so the server can only be reached on the SSL listen port.

1. Set the JAVA_HOME environment variable. JAVA_HOME should point to `<JDK_INSTALL_DIR>`.

2. Update the following property in the `ant.install.properties` file.

   ```
   input.install.to.appserver = true
   ```

3. Run the following ant target:

   ```
   install.cmd ant init app-ear-deploy -propertyfile ant.install.properties
   ```

■ To deploy from the application server console:

1. Set the JAVA_HOME environment variable. JAVA_HOME should point to *<JDK_INSTALL_DIR>*.

2. Run the following target:

   ```
   install.cmd ant init app-ear-deploy
   ```

3. Deploy the ear file from the following location:

   ```
   <INSTALL_DIR>\backoffice\backoffice.ear
   ```

   > **Note:** When deploying the ear file, provide the same application name and context root you gave to the installer. These values were stored in the *<INSTALL_DIR>*\ant.install.properties file by the installer.

   > **Note:** If the Initial set of parameters has not been imported because deployment of the application was performed using the manual deployment option, see "Import Initial Parameters" for details on how to import the parameters.

Install Parameters

The application parameters must be installed before the Back Office application is fully operational. In the Install Parameters window, you select whether the installer completes installation of the parameters.

- If you chose Yes, you do not need to perform any further steps to install the parameters. This is the default selection in the window.

- If you chose No, the installer did not install the parameters. For information on installing the parameters, see "Import Initial Parameters".

Import Initial Parameters

> **Note:** If you did not choose to have the installer set the initial parameters, you must import an initial set of parameters before you can use Oracle Retail Back Office. For more information on parameters, see the *Oracle Retail POS Suite Configuration Guide*.

This section provides an overview of the procedures for importing an initial set of parameters. You can import the parameters through the Oracle Retail Back Office user interface or by using an ant target after the installation is complete. You only need to use one of the procedures. The procedure for importing parameters through the application user interface is described in more detail in the *Oracle Retail Back Office User Guide*.

Import Parameters Through the User Interface

To import the initial parameters through the user interface:

1. Open the Oracle Retail Back Office application in a web browser. The address is provided at the end of the installer output and in the log file.

```
https:\\<host name>:<port number>\<context root>
```

2. Log in to the application with a user ID that has full administrative rights.

3. Click the **Admin** tab and then the **Job Manager** subtab. Click the **Available Imports** left navigation link. The Available Imports window appears.

4. To import the master parameter set, click the **File** link in the Import Parameters for Distribution row. Follow the instructions to import `parameterset.xml` from the `<INSTALL_DIR>\backoffice\configured-output\db` folder.

5. To import the initial set of Oracle Retail Back Office application parameters, click the **File** link in the Import BackOffice Parameters row. Follow the instructions to import `backoffice.xml` from the `<INSTALL_DIR>\backoffice\configured-output\db` folder.

Import Parameters by using an Ant Target

> **Note:** The application server's non-SSL listen port must be enabled before running the ant target described here. The non-SSL listen port can be enabled using the WebLogic Admin Console. After these steps are completed, the non-SSL listen port can be disabled so the server can only be reached on the SSL listen port.

To import parameters using an ant target:

1. Change to the `<INSTALL_DIR>\backoffice\configured-output\db` directory.

2. In `db.properties`, set the host name and port number for the parameters.apphost property to point to your Back Office installation.

   ```
   parameters.apphost=t3://<host name>:<port number>
   ```

3. Set the JAVA_HOME and ANT_HOME environment variables.

   ```
   JAVA_HOME=<JDK_INSTALL_HOME>; ANT_HOME=<INSTALL_DIR>/ant;
   export JAVA_HOME ANT_HOME
   ```

4. Run the following command:

   ```
   ant load_parameters
   ```

Load Optional Purge Procedures

For information on the procedures provided for purging aged data, see the *Oracle Retail POS Suite Operations Guide*.

To load the purge procedures:

1. Run the available Ant target to load the procedures.

   ```
   ant load_purge_procedures
   ```

2. Log in as the database schema owner, <schema_owner_user>.

3. Create a user for running the purge procedures. This user should only have the privileges required to run the purge procedures.

Update Local Time Zone for Bank Deposit Summary Report

The default local time zone for the Bank Deposit Summary Report is America/Chicago. If this is not your local time zone for Back Office, the correct time zone needs to be set for the report. To change the local time zone:

1. In the `<INSTALL_ DIR>\backoffice\configured-output\db\reports\financial` folder, open the BO_BankDepositSummaryReport.rtf file.

2. Update the create time in the file:

    a. Double-click CREATE TIME under Creation Time. The Text Form Field Options window appears.

    > **Note:** Double-click only CREATE TIME and not the other two values which are also in the same area. The value is highlighted when selected. Figure 3–2 shows the CREATE TIME value selected.

Figure 3–2   Update Local Time Zone for Report Example
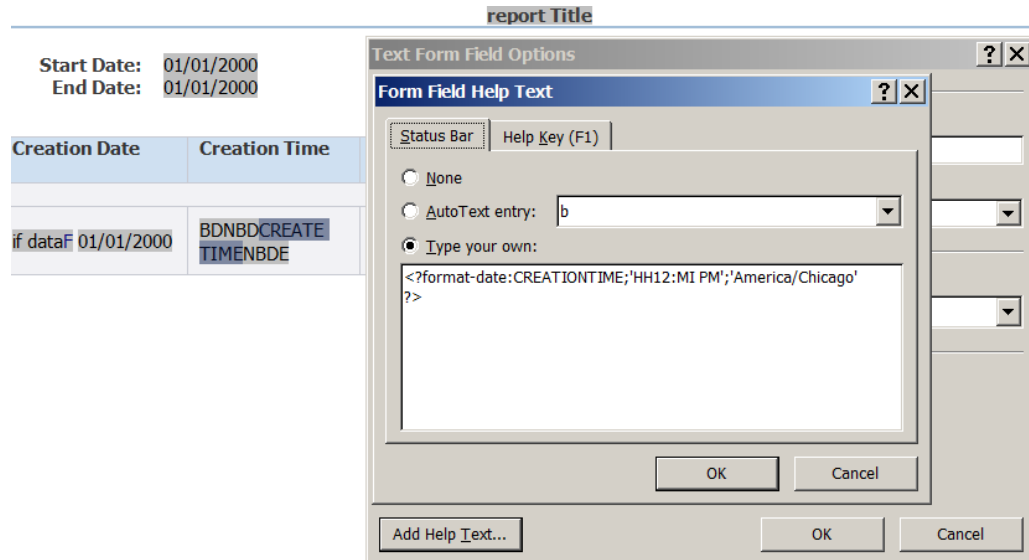
    b. Click **Add Help Text.** The Form Field Help Text window appears.

    c. Under the Status Bar tab, select **Type your own**. The date format appears.

    d. Change America/Chicago to your local time zone. Figure 3–2 shows the America/Chicago value that you change.

    e. Save the change.

3. Reload the reports:

    1. Change to the `<INSTALL_DIR>\backoffice\configured-output\db` directory.

    2. Run the following command:

    ```
    ant -f db.xml load_reports
    ```

Using the Back Office Application

> **Note:** When you are done installing Back Office, log out and close the browser window. This ensures that your session information is cleared and prevents another user from accessing Back Office with your login information.

After the application installer completes and you have run the initial parameter load, you should have a working Back Office application installation. To launch the application, open a web browser and go to
`https:\\<servername>:<portnumber>\<context root>`

For example, https:\\myhost:7002\backoffice

4

Installation using Novell SLEPOS

Before proceeding, you must install the database and application server software. For a list of supported versions, see Chapter 1.

During installation, the Back Office database schema will be created and the Back Office application will be deployed to an Oracle WebLogic domain. When the domain was created, the JDK was selected. This is the JDK that is used to run the Back Office application. For the remainder of this chapter, the JDK installation directory is referred to as *<JDK_INSTALL_DIR>*.

Upgrade Oracle WebLogic to the Required JPA Version

Before installing Back Office, upgrade WebLogic with the latest version of the JPA jars that are tested with Back Office. The jars are shipped with the Back Office installer and are available in the ORBO-14.0.1.zip file. After extracting the zip file, the jars are available in the following folder:

<staging_directory>/backoffice/lib/thirdparty

For information on extracting the zip file, see "Expand the Back Office Distribution".

The following JPA jar files need to be upgraded:

- eclipselink.jar
- javax.persistence_2.1.0.v201304241213.jar

To upgrade the JPA jar files:

1. Copy the two jar files from *<staging_directory>*/backoffice/lib/thirdparty to the *<WebLogic_HOME>*/modules directory.

2. To set the CLASSPATH, edit commEnv.sh in the *<WebLogic_HOME>*/wlserver_10.3/common/bin directory:

   ```
   PRE_CLASSPATH="${MODULES_DIR}/javax.persistence_
   2.1.0.v201304241213.jar:${MODULES_DIR}/eclipselink.jar"
   ```

3. After setting the variable, look on the console and make sure the jars are added to the CLASSPATH. If they are not added, shut down WebLogic and add the jars to the WEBLOGIC_CLASSPATH variable in the same file.

Create a New WebLogic Domain for Back Office

You can skip this section if you are manually redeploying to an existing domain.

The Back Office application must be deployed to its own dedicated domain. For information on how to perform the following steps, consult your Oracle WebLogic Server documentation.

Server Name Considerations

Each server instance in your WebLogic environment must have a unique name, regardless of the domain in which it resides, or whether it is an Administration Server or a Managed Server. Within a domain, each server, machine, virtual host, and any other resource type must be named uniquely and must not use the same name as the domain.

> **Note:** Back Office, Central Office, Returns Management, and the Mobile Point-of-Service server must have all unique domain names and server names in order to integrate successfully.

Enabling Trust Between WebLogic Server Domains

The WebLogic Server enables you to establish global trust between two or more domains. You do this by specifying the same Domain Credential for each of the domains. By default, the Domain Credential is randomly generated and therefore, no two domains have the same Domain Credential. During installation, the WebLogic domain credential is configured to the value entered in the Domain Details installer window. For more information, see Figure A–23.

> **Note:** All domains running Oracle Retail applications must have the same domain credentials.

WebLogic Domain Startup Mode

WebLogic can be run in production mode or development mode.

Boot Identity Files

When a domain is created in development mode using the Configuration Wizard, a boot identity file, named `boot.properties`, is created in the Administration Server's root directory. The boot identity file contains an encrypted version of the user name and password which lets you bypass the login prompt during instantiations of the server. In production mode, WebLogic prompts for credentials on the command line.

To install Back Office on a domain using production mode, you must first create a boot identity file so that the Administration Server can bypass the prompt for user name and password when the installer restarts the server.

Consult your WebLogic documentation for more information and options for creating boot identity files. Following is an example of one method, that can be used after domain creation, to create the boot identity file:

1. Start the Administration Server at least once and provide the user credentials on the command line.

2. Create the Administration Server's security directory, if it does not already exist.

   ```
   <WEBLOGIC_INSTALL_DIR>/user_
   projects/domains/<orbo-domain>/servers/<AdminServerName>/security
   ```

3. Place the following two lines in a file named `boot.properties` in the `security` directory:

```
password=<password>
username=<username>
```

> **Note:** There should be no spaces on either side of the equal sign.

4. Stop and restart the Administration Server to verify that the credential prompts are bypassed.

Secure Sockets Layer

Back Office is accessed through a secure HTTP connection. Enable the Secure Sockets Layer (SSL) when creating the domain and set the listen port and SSL list port number so that the numbers are unique for each domain in your configuration.

Verify that the domain's administrative server is started and in running mode.

Managed Servers

When a domain is created with a managed server using the Oracle JDK, the default WebLogic settings may leave the server without enough memory to configure and stop the running managed server. A careful inspection of the log files may indicate an out-of-memory exception.

To avoid the out-of-memory exceptions, increase the PermSize space:

1. In the WebLogic Administration console, under Environments, select Servers.

2. In Summary of Servers, select *<managedServerName>*.

3. In Settings, select the Server Start tab.

4. In the Arguments text box, add the following if it does not already exist:

```
-Xms512m -Xmx512m -XX:PermSize=512m -XX:MaxPermSize=512m
```

Before launching the Back Office installer, create a directory for the persistent store:

```
<WEBLOGIC_INSTALL_DIR>/user_
projects/domains/<orbo-domain>/servers/<ManagedServerName>/data/store/orbo-persist
ent-store
```

General Steps for Creating a New Domain

In addition to specific steps previously described, you can use the following steps to create a new domain using the WebLogic Configuration Wizard:

1. Log on to the server, which is running your WebLogic installation, as the user who owns the WebLogic installation.

2. Launch the Weblogic Configuration Wizard.

3. Select **Create a new WebLogic Domain**. The domain can be a basic WebLogic server domain.

4. Choose a unique name for the new domain. In the remainder of this installation guide, *<orbo-domain>* is used for the name.

5. Configure the administrator user name and password.

6. Configure the server start mode and JDK.

7. Configure the Administration Server.

Before launching the Back Office installer:

1. If using a Managed Server, start the Managed Server.

2. Start the Administration Server.

3. Verify that all servers in the domain are started and in running mode.

Deploying to a Managed Server

If you are deploying Back Office to a managed server, note the following:

If any of the servers are remote from the admin server, copy the contents of the `domain/lib` directory to the corresponding directory on the remote systems. Also, a directory for the persistent store needs to be created on the remote systems. It should be located in the following location:

```
<WEBLOGIC_INSTALL_DIR>/user_
projects/domains/<orbo-domain>/servers/<serverName>/data/store/orbo-persistent-sto
re
```

Create the Database Schema Owner and Data Source Connection Users

The following recommendations should be considered for schema owners:

- Database administrators should create an individual schema owner for each application, unless the applications share the same data. In the case of Oracle Retail Back Office and Point-of-Service, the database schema owner is the same because these applications share a database.

- The schema owners should only have enough privileges to install the database.

For information on the best practices for passwords, see the *Oracle Retail POS Suite Security Guide*.

> **Note:** Do not delete the database schema owner after installation. When using Data Import (DIMP), the schema owner privileges are needed for DIMP processing which includes creating and dropping tables. For information on DIMP, see "Enable Data Import".

To create the database schema owner and data source connection users:

1. Log in using the database administrator user ID.

2. Create a role in the database to be used for the schema owner.

   ```
   CREATE ROLE <schema_owner_role>;
   ```

3. Grant the privileges, shown in the following example, to the role.

   ```
   GRANT CREATE TABLE, CREATE VIEW, CREATE SEQUENCE, CREATE PROCEDURE, ALTER
   SESSION, CONNECT TO <schema_owner_role>;
   ```

4. Create a role in the database to be used for the data source user.

   ```
   CREATE ROLE <data_source_role>;
   ```

5. Grant the privileges, shown in the following example, to the role.

```
GRANT CONNECT, CREATE SYNONYM TO <data_source_role>;
```

> **Note:** After the product is installed successfully, the CREATE SYNONYM privilege must be revoked from the data source role. Before the installer exits, it prompts for a database administrator to revoke the privilege.

6. Create the schema owner user in the database.

```
CREATE USER <schema_username>
IDENTIFIED BY <schema_password>
DEFAULT TABLESPACE users
TEMPORARY TABLESPACE TEMP
QUOTA UNLIMITED ON users;
```

7. Grant the schema owner role to the user.

```
GRANT <schema_owner_role> TO <schema_username>;
```

8. Create the data source user.

```
CREATE USER <data_source_username>
IDENTIFIED BY <data_source_password>
DEFAULT TABLESPACE users
TEMPORARY TABLESPACE TEMP
QUOTA UNLIMITED ON users;
```

9. Grant the data source role to the user.

```
GRANT <data_source_role> TO <data_source_username>;
```

The installer grants the data source connection user access to the application database objects. If you choose **No** in the Manual Deployment Option window, you need to grant the access after the installer completes. For more information, see "Manual Deployment of the Back Office Application".

Expand the Back Office Distribution

To extract the Back Office files:

1. Extract the Back Office 14.0.1 distribution zip file.

2. Create a new staging directory for the Back Office application distribution (`ORBO-14.0.1.zip`) file, for example, `C:/tmp/j2ee/<orbo-domain>/orbo-staging`.

> **Note:** The staging area (`<staging_directory>`) can exist anywhere on the system. It does not need to be under `tmp`.

3. Copy or upload `ORBO-14.0.1.zip` to `<staging_directory>` and extract its contents. The following files and directories should be created under `<staging_ directory>/ORBO-14.0.1`:

```
ant/
ant-ext/
antinstall/
backoffice/
installer-resources/
```

```
retail-public-security-api/
.postinstall.cmd
.postinstall.sh
.preinstall.cmd
.preinstall.sh
antinstall-config.xml
build.xml
build-common.xml
build-common-backoffice.xml
build-common-esapi.xml
build-common-oas.xml
build-common-retailinv.xml
build-common-was.xml
build-common-webapps.xml
build-common-wl.xml
build-test.cmd
checkdeps.cmd
checkdeps.sh
install.cmd
install.sh
prepare.xml
revokesyn.sql
wallet.xml
```

For the remainder of this chapter, `<staging_directory>`/ORBO-14.0.1 is referred to as `<INSTALL_DIR>`.

Set Up for Integration with Central Office and Returns Management

You select the applications that Oracle Retail Back Office is integrated with in the Integrate Applications window. See Figure A–7. If Central Office or Returns Management is selected in the window, that application must be running in order for the Back Office files to be installed correctly.

Enable Data Import

Data Import (DIMP) is used by external systems to send data bundles to Back Office for routine data loading of certain types of data. To use DIMP, you need to create a directory for the incoming bundles and a directory where the bundles are archived after being processed.

In the Enable DIMP installer window, you select whether DIMP will be used. See Figure A–11. If **Yes** is selected in the window, you then provide the paths to the directories in the DIMP Configuration installer window. See Figure A–12.

For detailed information on DIMP, see the *Oracle Retail POS Suite/Merchandising Products Implementation Guide*.

Enable Cross Version Support

A retailer may want to use DIMP with Release 14.0.1 of the POS Suite applications but with an earlier release of the Oracle Retail Merchandising Operations Management products. Cross version support enables this integration.

In the Enable Cross Version for DIMP installer window, you select whether cross version support is enabled. See Figure A–13. If **Yes** is selected in the window, you then provide the information needed for cross version support in the Cross Version Compatibility Configuration installer windows. See Figure A–14 and Figure A–15.

For detailed information on cross version support, see the *Oracle Retail POS Suite Implementation Guide, Volume 1 - Implementation Solutions*.

Installation Options

During installation, there are options that enable you to select whether the installer completes parts of the installation or if you want to complete those parts manually. For information on the available options, see the following sections:

- "Install Database Options"
- "Manual Deployment of the Back Office Application"
- "Install Parameters"

Install Database Options

The database schema must be created and populated before configuring the application server. In the Install Database Option window, you select whether the installer creates and populates the database schema or if you want to do this manually. See Figure A–16.

- If you choose **Create schema with sample dataset**, the installer creates and populates the database schema with sample data, such as item data. This is the default selection in the window. The sample dataset includes the minimum dataset and report configuration data. If you want data available to use for demonstrating Back Office functionality after installation, you can select this option.

  To use this option, you must provide the location of the zip file containing the sample dataset in the Sample Dataset installer window. See Figure A–17. You can obtain the `sample-dataset-14.0.1.zip` file from the Oracle Software Delivery Cloud at the following web site:

  https://edelivery.oracle.com/

- If you choose **Create schema with minimum dataset**, the installer creates and populates the database schema with the minimum amount of data needed to launch and run Back Office. The minimum dataset includes report configuration data. If you want to load your own data after installation, you can select this option.

- If you choose **Skip schema creation and data loading**, the installer does not create and populate the database schema. You choose this option if you want to create and populate the database schema manually. For information on manually creating and populating the database schema, see "Manually Create the Database Schema".

  > **Note:** If Back Office is being installed for the first time and a clean schema is being used, do not select the **Skip schema creation and data loading** option. The installer will fail at some point if there is no data available in the database. You must populate the database schema before running the installer by selecting one of the other options.
  >
  > If the schema is already populated and you want to manually restore or update the data, select the **Skip schema creation and data loading** option.

Manually Create the Database Schema

To manually create and populate the database schema:

1. Change to the `<INSTALL_DIR>`/backoffice/db directory.

2. Set the JAVA_HOME and ANT_HOME environment variables.

   ```
   JAVA_HOME=<JDK_INSTALL_DIR>/jre; ANT_HOME=<INSTALL_DIR>/ant; export JAVA_HOME
   ANT_HOME
   ```

3. Add $JAVA_HOME/bin and $ANT_HOME/bin to the front of the PATH environment variable.

   ```
   PATH=$JAVA_HOME/bin:$ANT_HOME/bin:$PATH; export PATH
   ```

4. Expand the backofficeDBInstall.jar file.

   ```
   jar -xvf backofficeDBInstall.jar
   ```

5. If you are using sample data, enter the path to the sample dataset file. Use forward slashes in the path:

   ```
   # identifies the sample dataset file
   dataset.sample.zip=FILE_DATASET_SAMPLE
   ```

6. Modify db.properties.

   a. Uncomment the Oracle properties and comment out the properties for the other vendors.

   b. In the Oracle properties, update the settings to the following:

   ```
   db.product=jdbc
   db.version=11.2.0.4
   ```

   c. Set the following properties with your database settings. The values to be set are shown in bold in the examples.

   Set the hash algorithm, for example, to SHA-256.

   ```
   # Hash Algorithm
   inst.hash.algorithm=HASH_ALGORITHM
   ```

   Enter the values for the users shown in bold in the following example:

   ```
   inst.app.admin.user=my-bo-admin-user
   inst.app.admin.password-encrypted=

   db.user=DB_USER_ID
   db.password-encrypted=

   db.owner.user=DB_OWNER_USER_ID
   db.owner.password-encrypted=
   ```

   Before running the ant target to encrypt the passwords, clear the encrypted password entries as shown in the preceding examples. The ant target prompts for the passwords. Run the following ant target to encrypt the passwords:

   ```
   ant -f db.xml encrypt-webapp-passwords
   ```

   Enter the values for the URL used by the Back Office application to access the database schema. See Appendix D for the expected syntax:

   ```
   db.jdbc-url=jdbc:oracle:thin:@DB_HOST_NAME:1521:DB_NAME
   ```

If you are using a service name, the URL has the following format:

```
db.jdbc-url=jdbc:oracle:thin:@DB_HOST_NAME:1521/SERVICE_NAME
```

Enter the value for the store ID shown in the following example:

```
configured.store.id=04241
```

Enter the value for the supported locales shown in the following example:

```
gen.locales=fr,zh
```

Add a default locale as shown in bold in the following example:

```
mock.locales=none
default.locale=en_US
```

d. If VAT is used, set value to true:

```
tax.enableTaxInclusive=false
```

e. Add entries for tablespaces. If you are using the default tablespaces, leave the name blank:

```
db.table.space=pos_data_ts
db.index.table.space=pos_indx_ts
```

f. Set the host name and rmi port number for the `parameters.apphost` property to point to your Back Office installation.

```
parameters.apphost=t3://<hostname>:<port_number>
```

g. In the `parameters.classpath` property, replace the semicolons used as separators with colons. This is needed to run with Linux systems.

h. To enable VAT functionality, uncomment the tax.enableTaxInclusive property in the tax properties section.

i. If loading sample data, replace FILE_DATASET_SAMPLE with the full path and file name for the sample dataset zip file.

```
dataset.sample.zip=FILE_DATASET_SAMPLE
```

7. Run one of the available Ant targets to create the database schema and load data.

- load_sample: creates the database schema containing the sample dataset. The sample dataset includes the minimum dataset and report configuration data.

   To use this option, you must provide the location of the zip file containing the sample dataset. You can obtain the `sample-dataset-14.0.1.zip` file from the Oracle Software Delivery Cloud at the following web site:

   https://edelivery.oracle.com/

- load_minimum: creates the database schema containing the minimum dataset. The minimum dataset includes report configuration data.

- load_reports: loads report configuration data.

For example: `ant load_sample`

To specifically load the report configuration data, use the following command:
```
ant -f db.xml load_reports
```

Secure the JDBC for the Oracle 11g Database

In the Enable Secure JDBC window, you select whether secure JDBC will be used for communication with the database. See Figure A–9.

- If **Yes** is selected, the installer sets up the secure JDBC.

- If **No** is selected and you want to manually set up the secure JDBC after the installer completes, see the *Oracle Retail POS Suite Security Guide*.

Run the Back Office Application Installer

A WebLogic domain must be configured and started before you can run the Back Office application installer. This installer will configure and deploy the Back Office application.

> **Note:** To see details on every window and field in the application installer, see Appendix A.

1. Change to the *<INSTALL_DIR>* directory.

2. Set the JAVA_HOME environment variable. JAVA_HOME should point to *<JDK_INSTALL_DIR>*.

> **Note:** The installer is not compatible with versions of Java earlier than Java 7.

3. Run the installer.

   a. Log into the Linux server as a user who is authorized to install software.

   b. Change the mode of install.sh to executable.

   c. Run the install.sh script. This will launch the installer.

   > **Note:** The usage details for install.sh are shown below. The typical usage for GUI mode does not use arguments.
   >
   > ```
   > install.sh [text | silent weblogic]
   > ```

   After installation is complete, a detailed installation log file is created: orbo-install-app.<timestamp>.log

   The installer leaves behind the ant.install.properties and cwallet.sso files for repeat installations.

4. After the installation is successfully completed, the CREATE SYNONYM privilege must be revoked. In the installer console window, it prompts for a database administrator to run the revokesyn SQL script to revoke the privilege. The script is found in the *<INSTALL_DIR>* directory.

Figure 4–1   Installer Prompt to Run revokesyn

```
revokesyn:
     [echo] Generating revokesyn.sql script with datasource username  userds
     [echo] ---------------------------------------------------------
     [echo] Revoke Create Synonym Privilege for Role or Schema User
     [echo] ---------------------------------------------------------
     [echo] To complete this installation, a database administrator must ensure
that the
     [echo] CREATE SYNONYM privilege has been revoked from the data source user
and from
     [echo] any roles granted to that user.  The revokesyn.sql script located in
 the
     [echo] installation directory may be used as a template, replacing the text
<Role_or_User>
     [echo] with the role or user for which CREATE SYNONYM was granted.
     [input] When the privilege has been revoked, please press the Enter key to c
ontinue.
```

For information on granting this privilege, see "Create the Database Schema Owner and Data Source Connection Users".

Replace the ojdbc6 Jar File in the WebLogic Installation

After the installation of Back Office is complete, the ojdbc6 jar file in the WebLogic installation must be replaced with the ojdbc6 jar included with Back Office.

To replace the ojdbc6 jar:

1. Stop the application server.

2. Copy the `ojdbc6.jar` file from `<INSTALL_DIR>/backoffice/configured-output/db/lib` to the `<WebLogic_HOME>/wlserver_10.3/server/lib` directory.

3. Start the application server:

   - If Back Office is deployed to an admin server, start the application server for the admin server.

   - If Back Office is deployed to a managed server, start the application server for the managed server.

Resolve Errors Encountered During Application Installation

If the application installer encounters any errors, it will halt execution immediately. You can run the installer in silent mode so that you do not have to reenter the settings for your environment. For instructions on silent mode, see Appendix B.

For a list of common installation errors, see Appendix E.

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

Disabled Non-SSL Port

You can choose to disable the non-SSL port in the Turn Off the Application Server's Non-SSL Port window. See Figure A–42. If you select Yes in the window, you must delete the transaction log files.

To delete the files:

1. Stop the application server.

2. Delete the transaction log files:

   `<orbo-domain>/server/<serverName>/data/store/default/WLS*.dat`

```
<orbo-domain>/server/<serverName>/data/store/or*-persistent-store/*.dat
```

3. Start the application server:

    ■   If Back Office is deployed to an admin server, start the application server for the admin server.

    ■   If Back Office is deployed to a managed server, start the application server for the managed server.

For more information, see the following web site. Refer to the *Moving a Server* section.

http://download.oracle.com/docs/cd/E12839_
01/web.1111/e13731/trxman.htm#i1053371

Manual Deployment of the Back Office Application

Skip this section if you chose the default option of allowing the installer to complete installation to the application server in the Manual Deployment Option window. See Figure A–38.

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>*/backoffice/configured-output/.

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

■   To deploy using the ant target:

> **Note:**   The application server's non-SSL listen port must be enabled before running the ant target described here. The non-SSL listen port can be enabled using the WebLogic Admin Console. After these steps are completed, the non-SSL listen port can be disabled so the server can only be reached on the SSL listen port.

1. Set the JAVA_HOME environment variable. JAVA_HOME should point to *<JDK_INSTALL_DIR>*.

2. Update the following property in the ant.install.properties file.

    ```
    input.install.to.appserver = true
    ```

3. Run the following ant target:

    ```
    install.sh ant init app-ear-deploy -propertyfile ant.install.properties
    ```

■   To deploy from the application server console:

1. Set the JAVA_HOME environment variable. JAVA_HOME should point to *<JDK_INSTALL_DIR>*.

2. Run the following target:

    ```
    install.sh ant init app-ear-deploy
    ```

3. Deploy the ear file from the following location:

    ```
    <INSTALL_DIR>/backoffice/backoffice.ear
    ```

> **Note:** When deploying the ear file, provide the same application name and context root you gave to the installer. These values were stored in the `<INSTALL_DIR>/ant.install.properties` file by the installer.

> **Note:** If the initial set of parameters has not been imported because deployment of the application was performed using the manual deployment option, see "Import Initial Parameters" for details on how to import the parameters.

Install Parameters

The application parameters must be installed before the Back Office application is fully operational. In the Install Parameters window, you select whether the installer completes installation of the parameters.

- If you chose Yes, you do not need to perform any further steps to install the parameters. This is the default selection in the window.

- If you chose No, the installer did not install the parameters. For information on installing the parameters, see "Import Initial Parameters".

Import Initial Parameters

> **Note:** If you did not choose to have the installer set the initial parameters, you must import an initial set of parameters before you can use Oracle Retail Back Office. For more information on parameters, see the *Oracle Retail POS Suite Configuration Guide*.

This section provides an overview of the procedures for importing an initial set of parameters. You can import the parameters through the Oracle Retail Back Office user interface or by using an ant target after the installation is complete. You only need to use one of the procedures. The procedure for importing parameters through the application user interface is described in more detail in the *Oracle Retail Back Office User Guide*.

Import Parameters Through the User Interface

To import the initial parameters through the user interface:

1. Open the Oracle Retail Back Office application in a web browser. The address is provided at the end of the installer output and in the log file.

   ```
   https://<host name>:<port number>/<context root>
   ```

2. Log in to the application with a user ID that has full administrative rights.

3. Click the **Admin** tab and then the **Job Manager** subtab. Click the **Available Imports** left navigation link. The Available Imports window appears.

4. To import the master parameter set, click the **File** link in the Import Parameters for Distribution row. Follow the instructions to import `parameterset.xml` from the `<INSTALL_DIR>/backoffice/configured-output/db` folder.

5. To import the initial set of Oracle Retail Back Office application parameters, click the **File** link in the Import BackOffice Parameters row. Follow the instructions to import `backoffice.xml` from the `<INSTALL_DIR>/backoffice/configured-output/db` folder.

Import Parameters by using an Ant Target

> **Note:** The application server's non-SSL listen port must be enabled before running the ant target described here. The non-SSL listen port can be enabled using the WebLogic Admin Console. After these steps are completed, the non-SSL listen port can be disabled so the server can only be reached on the SSL listen port.

To import parameters using an ant target:

1. Change to the `<INSTALL_DIR>/backoffice/configured-output/db` directory.

2. In `db.properties`, set the host name and port number for the parameters.apphost property to point to your Back Office installation.

   ```
   parameters.apphost=t3://<host name>:<port number>
   ```

3. Set the JAVA_HOME and ANT_HOME environment variables.

   ```
   JAVA_HOME=<JDK_INSTALL_HOME>; ANT_HOME=<INSTALL_DIR>/ant;
   export JAVA_HOME ANT_HOME
   ```

4. Run the following command:

   ```
   ant load_parameters
   ```

Load Optional Purge Procedures

For information on the procedures provided for purging aged data, see the *Oracle Retail POS Suite Operations Guide*.

To load the purge procedures:

1. Run the available Ant target to load the procedures.

   ```
   ant load_purge_procedures
   ```

2. Log in as the database schema owner, <schema_owner_user>.

3. Create a user for running the purge procedures. This user should only have the privileges required to run the purge procedures.

## Update Local Time Zone for Bank Deposit Summary Report

The default local time zone for the Bank Deposit Summary Report is America/Chicago. If this is not your local time zone for Back Office, the correct time zone needs to be set for the report. To change the local time zone:

1. In the `<INSTALL_DIR>/backoffice/configured-output/db/reports/financial` folder, open the BO_BankDepositSummaryReport.rtf file.

2. Update the create time in the file:

a. Double-click CREATE TIME under Creation Time. The Text Form Field Options window appears.

Note: Double-click only CREATE TIME and not the other two values which are also in the same area. The value is highlighted when selected. Figure 4–2 shows the CREATE TIME value selected.

Figure 4–2   Update Local Time Zone for Report Example
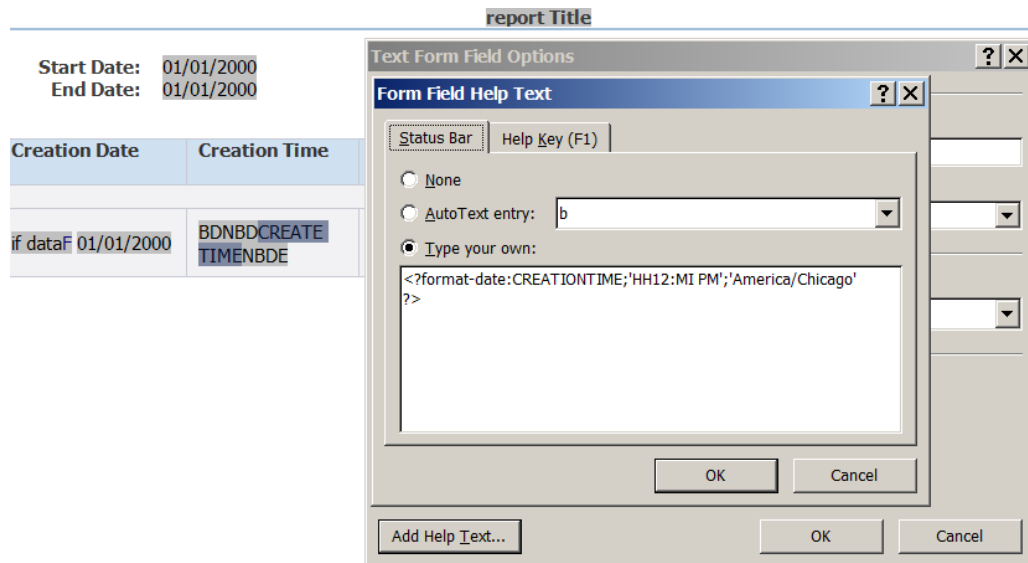
b. Click **Add Help Text.** The Form Field Help Text window appears.

c. Under the Status Bar tab, select **Type your own**. The date format appears.

d. Change America/Chicago to your local time zone. Figure 4–2 shows the America/Chicago value that you change.

e. Save the change.

3. Reload the reports:

1. Change to the `<INSTALL_DIR>/backoffice/configured-output/db` directory.

2. Run the following command:

```
ant -f db.xml load_reports
```

Using the Back Office Application

Note: When you are done installing Back Office, log out and close the browser window. This ensures that your session information is cleared and prevents another user from accessing Back Office with your login information.

After the application installer completes and you have run the initial parameter load, you should have a working Back Office application installation. To launch the

application, open a web browser and go to
`https://<servername>:<portnumber>/<context root>`

For example, https://myhost:7002/backoffice

Appendix: Installer Windows

You need specific details about your environment for the installer to successfully deploy the Back Office application. Depending on the options you select, you may not see some windows or fields.

For each field in a window, a table is included in this appendix that describes the field.

> **Note:** The paths shown in the window examples in this appendix use the path format for Microsoft Windows. In the table describing those fields, examples paths for both Microsoft Windows and Novell SLEPOS are shown.

Figure A–1   Introduction
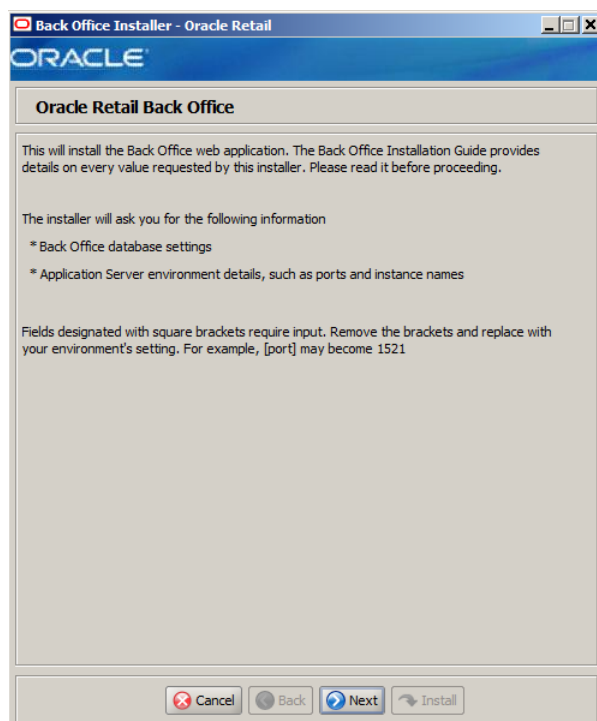
Figure A–2   Requirements
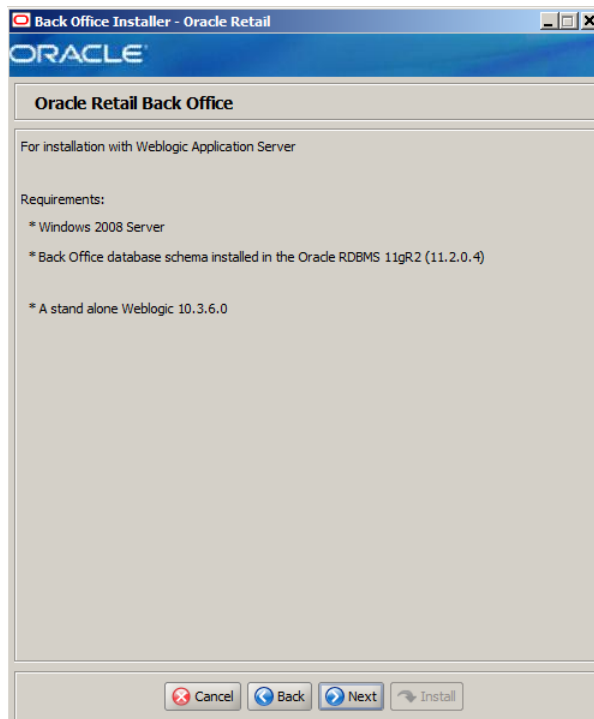
Figure A–3   License Agreement
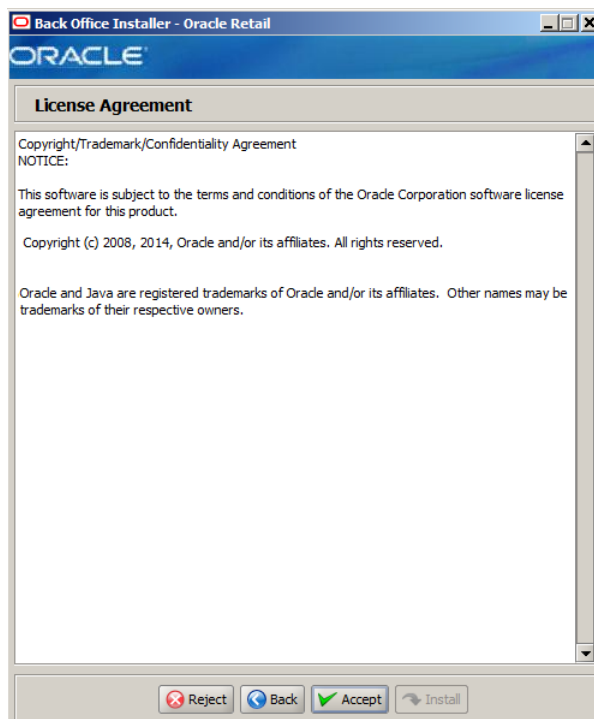
> **Note:**   You must choose to accept the terms of the license agreement in order for the installation to continue.

Figure A–4   All Supported Languages

The field in this window is described in the following table:

Details	Content
Field Title	Select all supported languages
Field Description	Choose whether all languages are initially selected on the Supported Languages screen:
	■ To have all available languages initially selected, select **Yes**.
	■ To have only English initially selected, select **No**.
Example	No

Figure A–5   Supported Languages
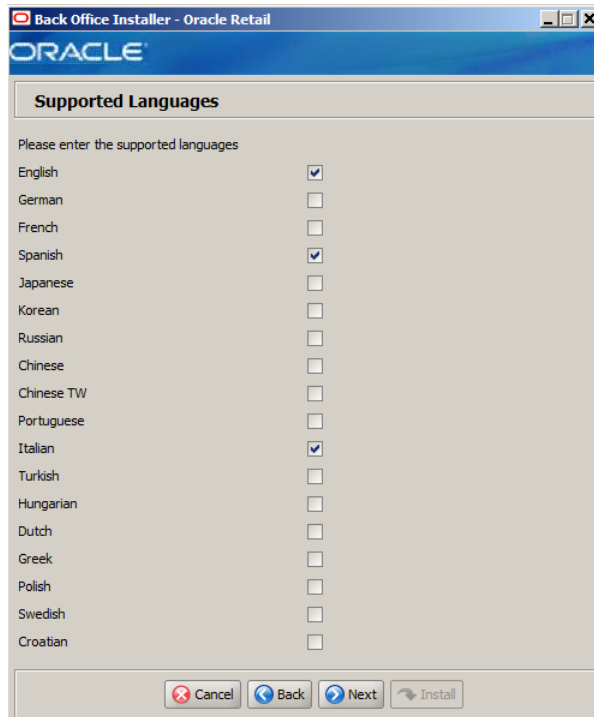
The field in this window is described in the following table:

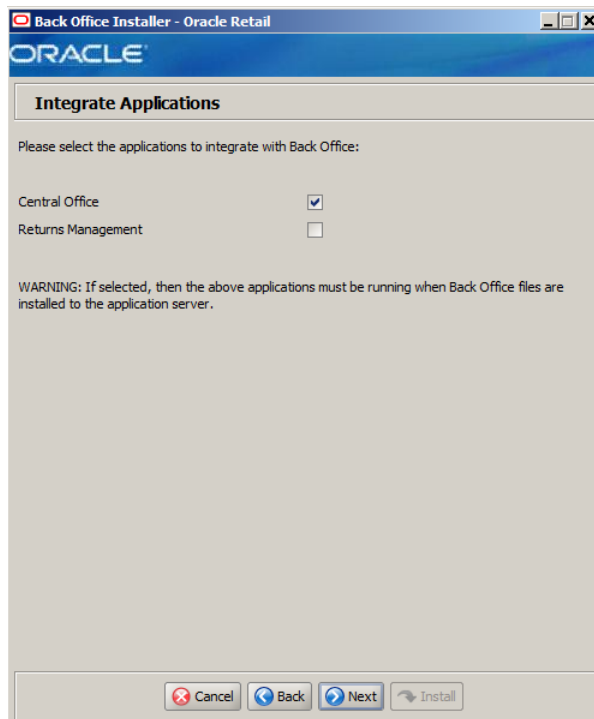| Details	Content
Field Title	Please enter the supported languages
Field Description	Select the languages that will be available for the Back Office application.
	The languages selected in this window determine the available choices in the Enter Default Locale window.
Example	English, Spanish, Italian

Figure A–6   Enter Default Locale

The field in this window is described in the following table:

Details	Content
Field Title	Enter Default Locale
Field Description	Locale support in Back Office enables the date, time, currency, calendar, address, and phone number to be displayed in the format for the selected default locale.
	The choices for default locale are dependent on the selections made in the Supported Languages window. For each selected language, the default locale for that language is displayed in the Enter Default Locale window. For example, if English, French, and Italian are selected in the Supported Languages window, en_US, fr_FR, and it_IT are the available choices for the default locale.
Example	en_US

Figure A–7   Integrate Applications

The field in this window is described in the following table:

Details	Content
Field Title	Please select the applications to integrate with Back Office
Field Description	Select the applications to integrate with Back Office. ■ Central Office ■ Returns Management **Note:** The selected applications must be running when Back Office is installed to the application server.
Example	Central Office

Figure A–8   Database Owner

The fields in this window are described in the following tables:

Details	Content
Field Title	Schema Username
Field Description	Schema user name that manages the objects in the schema. This user has Create, Drop, and Alter privileges in the schema, that is, Data Definition Language (DDL) execution privileges. For information on creating this user, see "Create the Database Schema Owner and Data Source Connection Users" in Chapter 3.
	Note: This user creates the database objects used by Back Office.

Details	Content
Field Title	Schema Password
Field Description	Password for the database owner.

Details	Content
Field Title	Confirm Password
Field Description	Reentered Schema Password used to confirm the password.
	Note: The passwords in the Schema Password and Confirm Password fields must match.

Figure A–9   Enable Secure JDBC
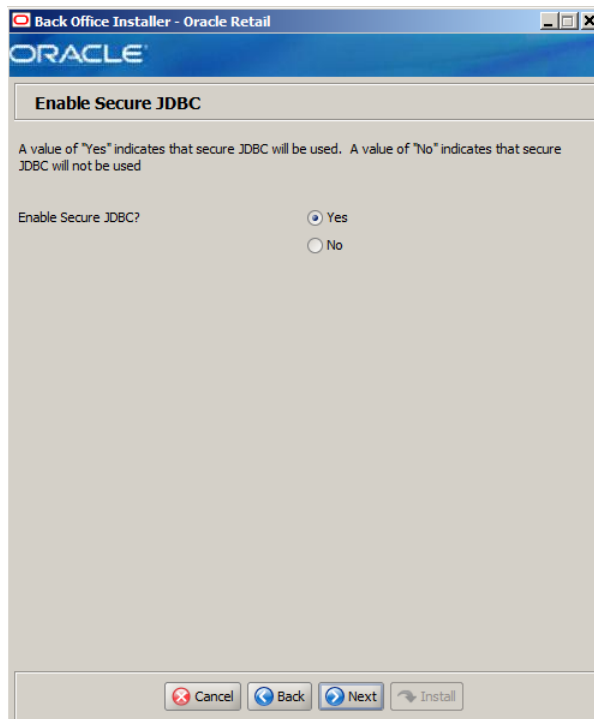
The field in this window is described in the following table:

Details	Content
Field Title	Enable Secure JDBC?
Field Description	Select whether secure JDBC is to be used for communication with the database.
Example	Yes

Figure A–10   Data Source User

The fields in this window are described in the following tables:

Details	Content
Field Title	JDBC URL
Field Description	URL used by the Back Office application to access the database schema. See Appendix D for the expected syntax.
	Note: If **Yes** is selected in the Enable Secure JDBC window, this URL is only used by the installer.
Example	jdbc:oracle:thin:@[host]:[tcpPort]:[dbname]

Details	Content
Field Title	Secure JDBC URL
Field Description	Secure URL containing the specific parameters used by Back Office to access the database schema. See Appendix D for the expected syntax.
	This field is only displayed if **Yes** is selected in the Enable Secure JDBC window.
Example	jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS=(PROTOCOL=tcps)(HOST=[host])(PORT=[tcpsPort]))(CONNECT_DATA=(SERVICE_NAME=[dbname])))

Details	Content
Field Title	Data Source Username

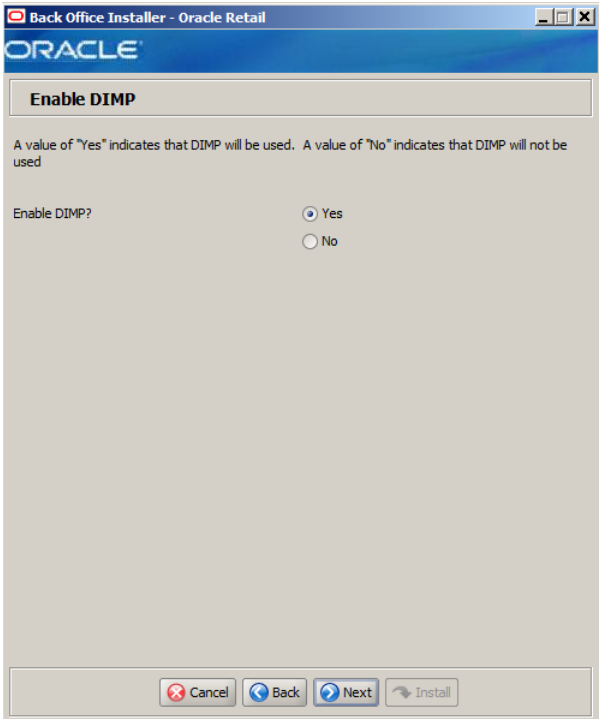| Details	Content
Field Description	Database user name that can access and manipulate the data in the schema. This user can have Select, Insert, Update, Delete, and Execute privileges on objects in the schema, that is, Data Manipulation Language (DML) execution privileges. For information on creating this user, see "Create the Database Schema Owner and Data Source Connection Users" in Chapter 3.
	Note: This schema user is used by Back Office to access the database.

Details	Content
Field Title	Data Source Password
Field Description	Password for the data source user.

Details	Content
Field Title	Confirm Password
Field Description	Reentered Data Source Password used to confirm the password.
	Note: The passwords in the Data Source Password and Confirm Password fields must match.

Details	Content
Field Title	Tablespace Information for Tables
Field Description	Name of the tablespace, associated with the data source user, which is used for tables. If this field is blank, tables are installed in the default tablespace.

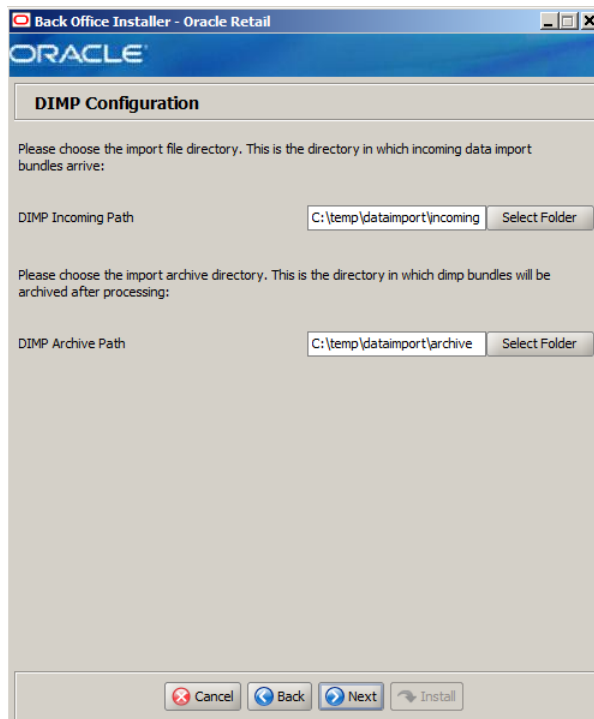| Details	Content
Field Title	Tablespace Information for Indexes
Field Description	Name of the tablespace, associated with the data source user, which is used for indexes. If this field is blank, indexes are installed in the default tablespace.

Figure A–11   Enable DIMP

The field in this window is described in the following table:

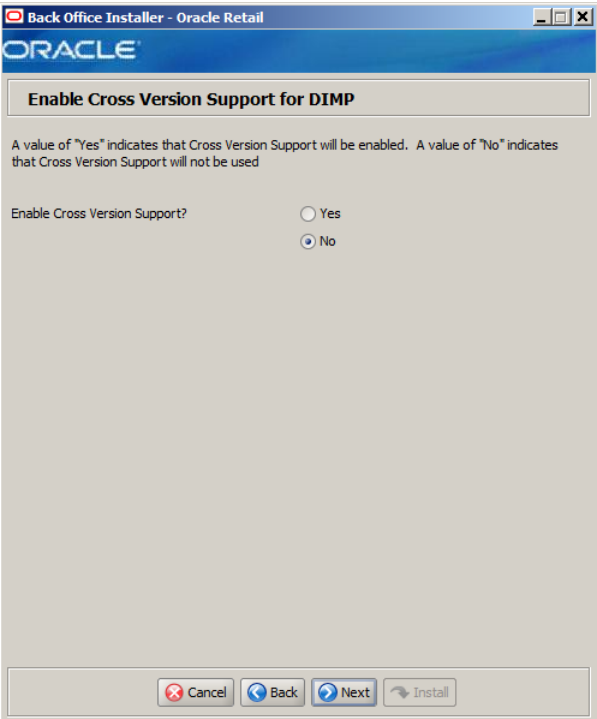| Details	Content
Field Title	Enable DIMP?
Field Description	Select whether DIMP will be used. For information on DIMP, see "Enable Data Import" in Chapter 3.
Example	Yes

Figure A–12 DIMP Configuration

This window is only displayed if **Yes** is selected in the Enable DIMP window.

The fields in this window are described in the following tables:

Details	Content
Field Title	DIMP Incoming Path
Field Description	Directory where the incoming data import bundles arrive.
Example	■ Microsoft Windows: C:\temp\dataimport\incoming ■ Novell SLEPOS: /tmp/dataimport/incoming

Details	Content
Field Title	DIMP Archive Path
Field Description	Directory where the incoming data import bundles are archived after processing.
Example	■ Microsoft Windows: C:\temp\dataimport\archive ■ Novell SLEPOS: /tmp/dataimport/archive

Figure A–13   Enable Cross Version for DIMP

This window is only displayed if **Yes** is selected in the Enable DIMP window.

The field in this window is described in the following table:

Details	Content
Field Title	Enable Cross Version Support?
Field Description	Select whether Cross Version Support for DIMP is enabled.
	For more information on cross version support, see "Enable Cross Version Support" in Chapter 3.
Example	Yes

Figure A–14   Cross Version Compatibility Configuration

This window is only displayed if **Yes** is selected in the Enable Cross Version for DIMP window.

The fields in this window are described in the following tables:

Details	Content
Field Title	DIMP Untransformed Path
Field Description	Directory that contains the incoming data import bundles that need transformation.

Example	■ Microsoft Windows:
	
	    C:\temp\dataimport\untransformed
	
	■ Novell SLEPOS:
	
	    /tmp/dataimport/untransformed

Details	Content
Field Title	XSL Directory Path
Field Description	Directory where the XSL files generated from the design tool are archived.

Example	■ Microsoft Windows:
	
	    C:\temp\dataimport\xsls
	
	■ Novell SLEPOS:
	
	    /tmp/dataimport/xsls

Details	Content
Field Title	MOM version
Field Description	Release of the Merchandising Operations Management products being used.
Example	13.2

Details	Content
Field Title	POS version
Field Description	Release of Oracle Retail Point-of-Service being used.
Example	14.0

Figure A–15   Cross Version Compatibility Configuration Contd..

This window is only displayed if **Yes** is selected in the Enable Cross Version for DIMP window.

The fields in this window are described in the following tables:

Details	Content
Field Title	Employee XSL Name Prefix
Field Description	Prefix for the XSL file name for the employee DIMP.
Example	employeetransform

Details	Content
Field Title	Currency XSL Name Prefix

Details	Content
Field Description	Prefix for the XSL file name for the currency DIMP.
Example	currencytransform

Details	Content
Field Title	Customer XSL Name Prefix
Field Description	Prefix for the XSL file name for the customer DIMP.
Example	customertransform

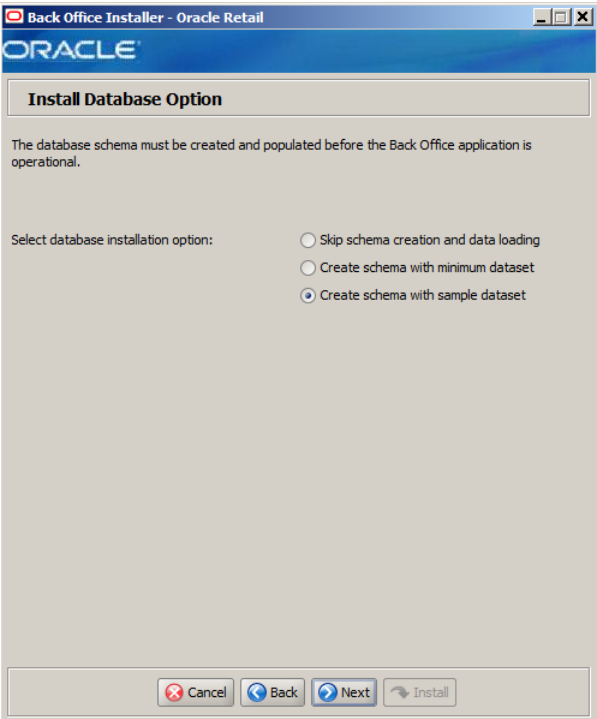| Details	Content
Field Title	Item XSL Name Prefix
Field Description	Prefix for the XSL file name for the item DIMP.
Example	itemtransform

Details	Content
Field Title	Price XSL Name Prefix
Field Description	Prefix for the XSL file name for the price DIMP.
Example	pricetransform

Details	Content
Field Title	Store XSL Name Prefix
Field Description	Prefix for the XSL file name for the store DIMP.
Example	storetransform

Details	Content
Field Title	Tax XSL Name Prefix
Field Description	Prefix for the XSL file name for the tax DIMP.
Example	taxtransform

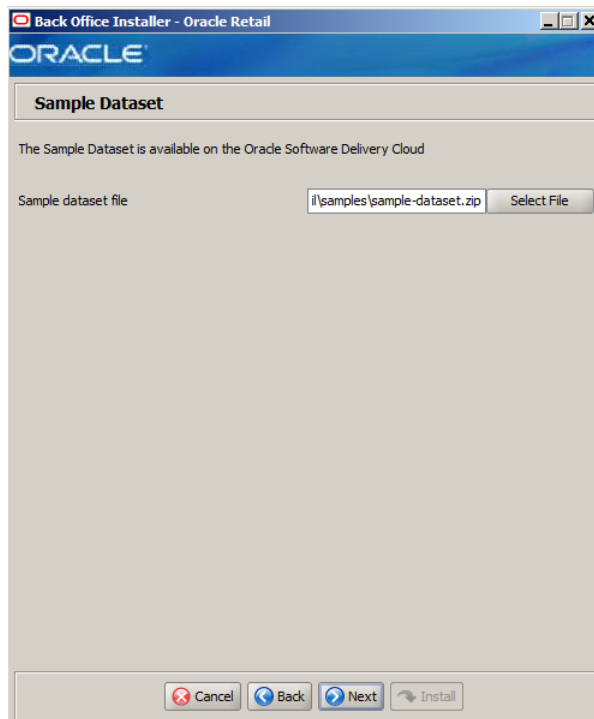| Details	Content
Field Title	Merchandise XSL Name Prefix
Field Description	Prefix for the XSL file name for the merchandise DIMP.
Example	merchandisetransform

Figure A–16   Install Database Option

The field in this window is described in the following table:

Details	Content
Field Title	Select database installation option
Field Description	The database schema must be created and populated before starting Back Office. This window gives you the option to have the installer create and populate the database schema or leave the database schema unmodified.
	■ To have the installer leave the database schema unchanged, select **Skip schema creation and data loading**.
	■ To have the installer create and populate the database schema with the minimum dataset, select **Create schema with minimum dataset**.
	■ To have the installer create and populate the database schema with the sample dataset, select **Create schema with sample dataset**.
	For more information, see "Install Database Options" in Chapter 3.
Example	Create schema with sample dataset

Figure A–17   Sample Dataset

This window is only displayed when **Create schema with sample dataset** is selected in the Install Database Option window.

The field in this window is described in the following table:

Details	Content
Field Title	Sample dataset file
Field Description	Enter the path to the sample dataset to be loaded into the database schema.
	You can obtain the `sample-dataset-14.0.1.zip` file from the Oracle Software Delivery Cloud at the following web site:
	https://edelivery.oracle.com/
	For more information on the sample dataset, see "Install Database Options" in Chapter 3.
Example	■ Microsoft Windows:
	C:\oracle\retail\samples\sample-dataset.zip
	■ Novell SLEPOS:
	oracle/retail/samples/sample-dataset.zip

Figure A–18   Back Office Administrator User

The fields in this window are described in the following tables:

Details	Content
Field Title	Back Office Administator Username
Field Description	Administrator user for the Back Office application.
Example	pos

Details	Content
Field Title	Back Office Administrator Password
Field Description	Password for the administrator user.

Details	Content
Field Title	Confirm Password
Field Description	Reentered Back Office Administrator Password used to confirm the password.
	Note: The passwords in the Back Office Administrator Password and Confirm Password fields must match.

Figure A–19 Cryptology Settings
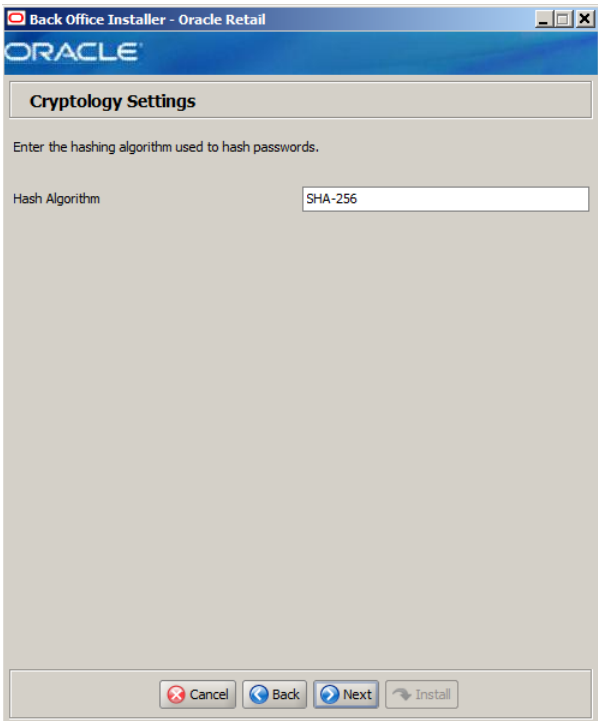
The field in this window is described in the following table:

Details	Content
Field Title	Hash Algorithm
Field Description	Enter the name of the algorithm used to hash passwords.
Example	SHA-256

Figure A–20   Enter Store ID

The field in this window is described in the following tables:

Details	Content
Field Title	Store ID
Field Description	ID for this store.
	Note: The store ID must be five digits. It can be padded with leading zeroes if necessary. The store ID can only contain the numeric characters 0 through 9.
Example	04241

Figure A–21   App Server WL_HOME
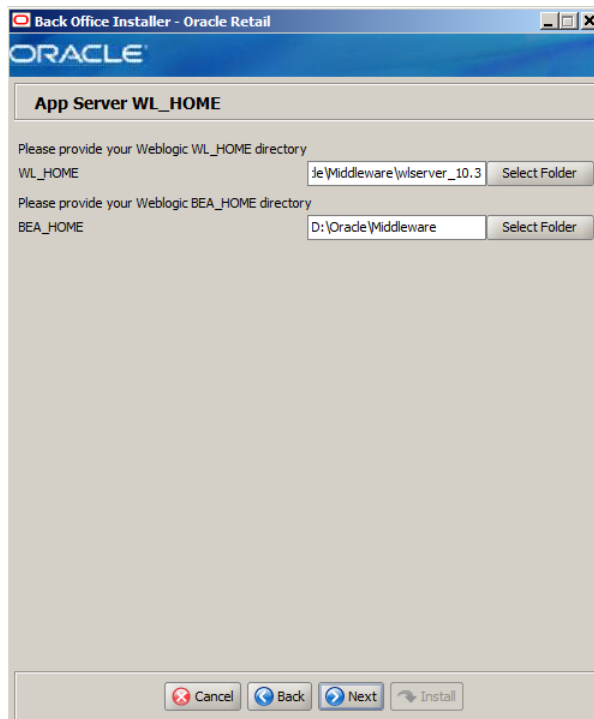
The fields in this window are described in the following tables:

Details	Content
Field Title	WL_HOME
Field Description	Home directory for the Oracle WebLogic installation.
Example	■ Microsoft Windows: D:\Oracle\Middleware\wlserver_10.3 ■ Novell SLEPOS: /opt/Oracle/Middleware/wlserver_10.3

Details	Content
Field Title	BEA_HOME
Field Description	Home directory for the Oracle BEA installation.
Example	■ Microsoft Windows: D:\Oracle\Middleware ■ Novell SLEPOS: /opt/Oracle/Middleware

Figure A–22   Mail Session Details

The fields in this window are described in the following tables:

Details	Content
Field Title	SMTP host
Field Description	Host where the SMTP server is running.
Example	mail.example.com

Details	Content
Field Title	Reply-To Address
Field Description	Reply-to address in e-mails generated by Back Office.
Example	notreply@example.com

Details	Content
Field Title	From Address
Field Description	From address in e-mails generated by Back Office.
Example	admin@example.com

Figure A–23   Domain Details

The fields in this window are described in the following tables:

Details	Content
Field Title	Weblogic Admin Server
Field Description	Name of the admin server to which the Back Office application is being deployed.
Example	AdminServer

Details	Content
Field Title	Admin Server HTTP port
Field Description	HTTP port used by the administration server. This port was selected when the administration domain was created.
Example	7001

Details	Content
Field Title	Weblogic Domain Path
Field Description	Path to the domain to which the Back Office application is being deployed.
Example	■ Microsoft Windows: D:\Oracle\Middleware\user_projects\domains\base_domain ■ Novell SLEPOS: oracle/Middleware/user_projects/domains/base_domain

Details	Content
Field Title	Weblogic Domain Credential
Field Description	Password shared between domains in order to establish a trust relationship.
	Note: Use the same password for all Oracle Retail applications in the trust relationship in your configuration.

Details	Content
Field Title	Confirm Password
Field Description	Reentered Weblogic Domain Credential used to confirm the password.
	Note: The passwords in the Weblogic Domain Credential and Confirm Password fields must match.

Details	Content
Field Title	Timezone
Field Description	Time zone for the Back Office domain.
Example	America/Chicago

Figure A–24   Weblogic Administrative User

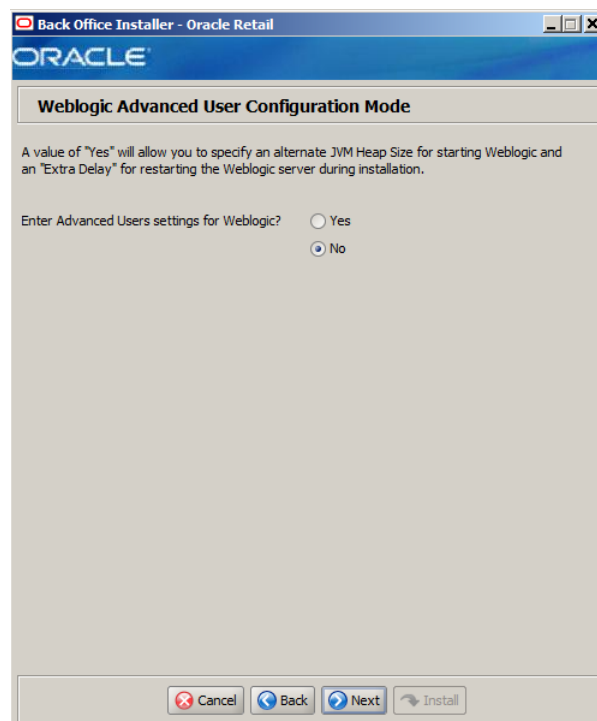The fields in this window are described in the following tables:

Details	Content
Field Title	Weblogic admin user

Details	Content
Field Description	User name of the administrative user for the WebLogic server to which the Back Office application is being deployed.
Example	weblogic

Details	Content
Field Title	Weblogic admin password
Field Description	Password for the WebLogic administrative user. You chose this password when you created the WebLogic server.

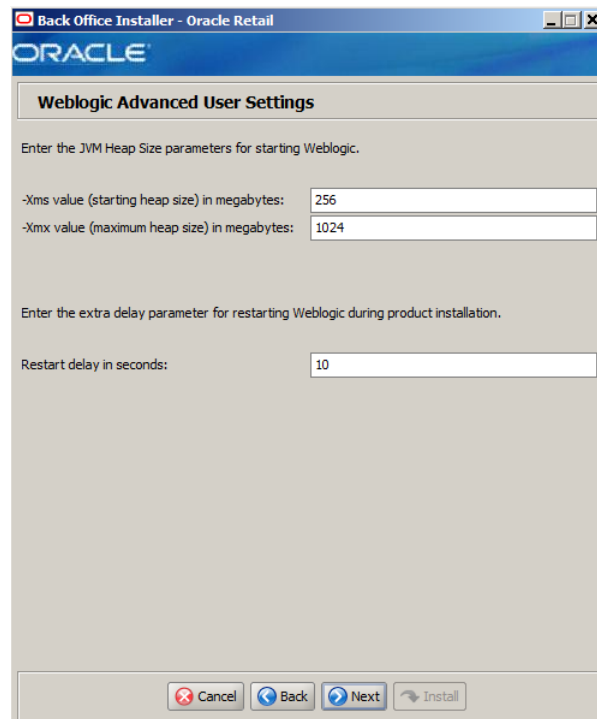| Details	Content
Field Title	Confirm password
Field Description	Reentered Weblogic Admin Password used to confirm the password. **Note:** The passwords in the Weblogic Admin Password and Confirm Password fields must match.

Figure A–25   Weblogic Advanced User Configuration Mode

The field in this window is described in the following table:

Details	Content
Field Title	Enter Advanced User settings for Weblogic?

Details	Content
Field Description	Sets whether you want to specify the JVM heap size and delay time for starting the WebLogic server.
	■ To enter the advanced settings, choose Yes.
	■ To not enter the advanced settings, choose No.
Example	No

Figure A–26   Weblogic Advanced User Settings

This window is only displayed if **Yes** is selected in the Weblogic Advanced User Configuration Mode window.
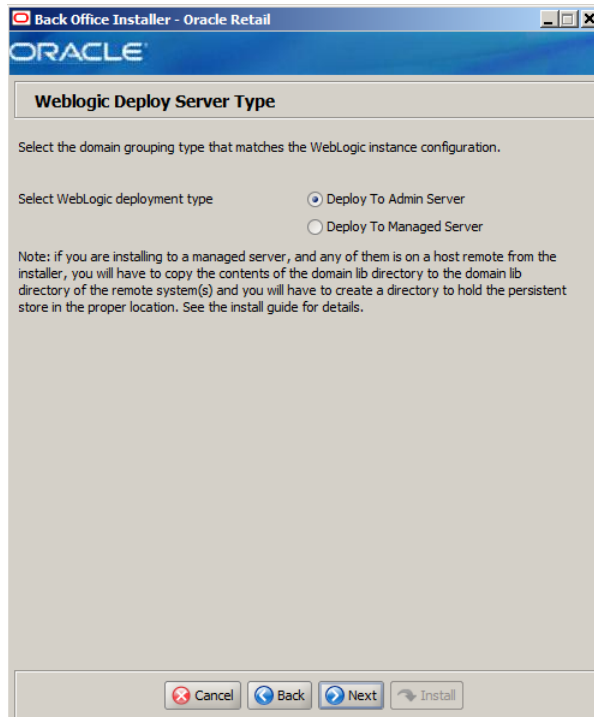
The fields in this window are described in the following tables:

Details	Content
Field Title	Xms value (starting heap size) in megabytes
Field Description	Enter the starting JVM heap size in megabytes.
Example	512

Details	Content
Field Title	Xmx value (maximum heap size) in megabytes
Field Description	Enter the maximum JVM heap size in megabytes.
	Note: If the entered heap size cannot be allocated by the system, the installation fails. The WebLogic server log can be examined to identify the issue.
Example	2048

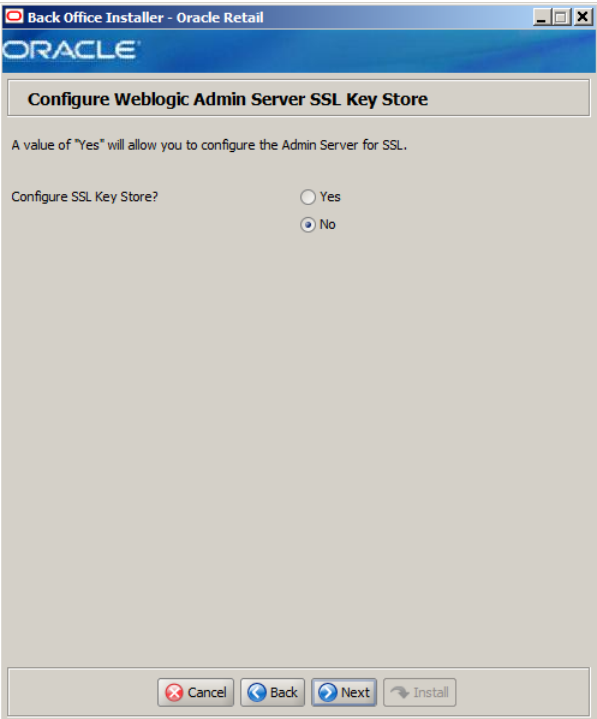| Details	Content
Field Title	Restart delay in seconds
Field Description	Enter extra delay in seconds for restarting WebLogic during product installation.
Example	10

Figure A–27   Weblogic Deploy Server Type

The field in this window is described in the following table:

Details	Content
Field Title	Select WebLogic deployment type
Field Description	Select how the Back Office application is deployed.
	■ Deploy to Admin Server
	The next window is Figure A–28.
	■ Deploy to Managed Server
	The next window is Figure A–30.
	For more information, see "Managed Servers" in Chapter 3 for Microsoft Windows or "Managed Servers" in Chapter 4 for Novell SLEPOS.
Example	Deploy to Admin Server

Figure A–28 Configure Weblogic Admin Server SSL Key Store

This window is only displayed if **Deploy to Admin Server** is selected in the Weblogic Deploy Server Type window.

The field in this window is described in the following table:

Details	Content
Field Title	Configure SSL Key Store?
Field Description	Select whether the Admin Server will be configured for SSL:
	■ To configure the Admin Server for SSL, select **Yes**.
	■ To not configure the Admin Server for SSL, select **No**.

Figure A–29   Weblogic Admin Server SSL Key Store Details

This window is only displayed if **Yes** is selected in the Configure Weblogic Admin Server SSL Key Store window.

The fields in this window are described in the following tables:

Details	Content
Field Title	Key Store File
Field Description	Path to the Key Store file.
Example	■ Microsoft Windows: D:\Oracle\Middleware\wlserver_10.3\server\lib\ProductionIdentity.jks ■ Novell SLEPOS: oracle/Middleware/wlserver_10.3/server/lib/ProductionIdentity.jks

Details	Content
Field Title	Key Store Password
Field Description	Enter the password used to access the client Key Store.

Details	Content
Field Title	Confirm Password
Field Description	Reentered Key Store Password used to confirm the password. **Note:** The passwords in the Key Store Password and Confirm Password fields must match.

Details	Content
Field Title	Key Alias
Field Description	Alias used to access the Key Store file.
Example	myalias

Details	Content
Field Title	Key Password
Field Description	Enter the password used to access the client Key Store.

Details	Content
Field Title	Confirm Password
Field Description	Reentered Key Password used to confirm the password.
	Note: The passwords in the Key Password and Confirm Password fields must match.

Details	Content
Field Title	Trust Store File
Field Description	Path to the Trust Store file.
Example	■ Microsoft Windows:
	D:\Oracle\Middleware\wlserver_ 10.3\server\lib\ProductionTrust.jks
	■ Novell SLEPOS:
	oracle/Middleware/wlserver_ 10.3/server/lib/ProductionTrust.jks

Details	Content
Field Title	Trust Store Password
Field Description	Enter the password used to access the Trust Store.

Details	Content
Field Title	Confirm Password
Field Description	Reentered Trust Store Password used to confirm the password.
	Note: The passwords in the Trust Store Password and Confirm Password fields must match.

Figure A–30   Managed Server Details

This window is only displayed if **Deploy to Managed Server** is selected in the Weblogic Deploy Server Type window.

The fields in this window are described in the following tables:

Details	Content
Field Title	Weblogic Managed Server
Field Description	Name of the managed server.
Example	ManagedServer_1

Details	Content
Field Title	Enter the Managed Server HTTP port
Field Description	HTTP port number used to access the managed server.
Example	7003

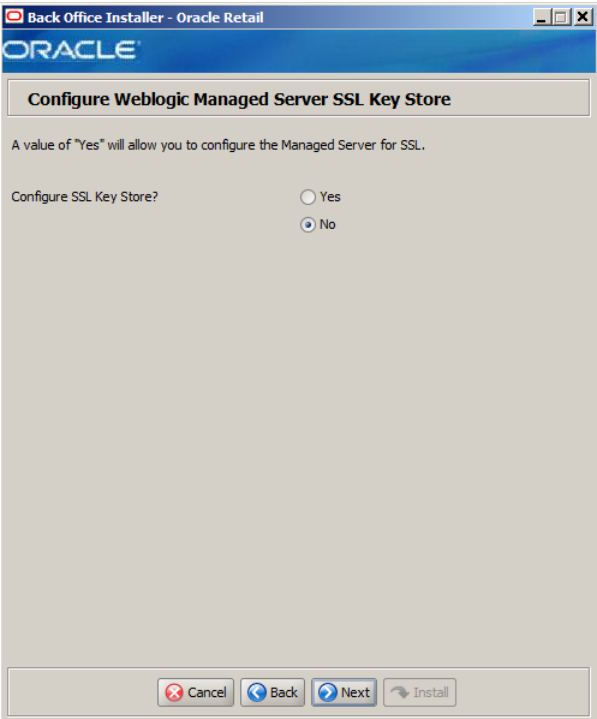*Figure A–31   Configure Weblogic Managed Server SSL Key Store*

This window is only displayed if **Deploy to Managed Server** is selected in the Weblogic Deploy Server Type window.

The field in this window is described in the following table:

Details	Content
Field Title	Configure SSL Key Store?
Field Description	Select whether the Managed Server will be configured for SSL:
	■ To configure the Managed Server for SSL, select **Yes**.
	■ To not configure the Managed Server for SSL, select **No**.

Figure A–32   Weblogic Managed Server SSL Key Store Details

This window is only displayed if **Yes** is selected in the Configure Weblogic Managed Server SSL Key Store window.

The fields in this window are described in the following tables:

Details	Content
Field Title	Key Store File
Field Description	Path to the Key Store file.
Example	■ Microsoft Windows: D:\Oracle\Middleware\wlserver_ 10.3\server\lib\ProductionIdentity.jks ■ Novell SLEPOS: oracle/Middleware/wlserver_ 10.3/server/lib/ProductionIdentity.jks

Details	Content
Field Title	Key Store Password
Field Description	Enter the password used to access the client Key Store.

Details	Content
Field Title	Confirm Password
Field Description	Reentered Key Store Password used to confirm the password. **Note:** The passwords in the Key Store Password and Confirm Password fields must match.

Details	Content
Field Title	Key Alias
Field Description	Alias used to access the Key Store file.
Example	myalias

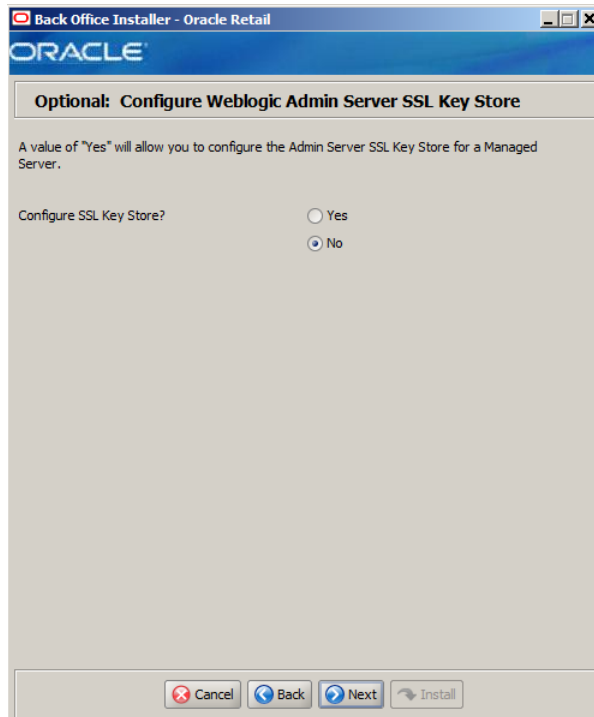| Details	Content
Field Title	Key Password
Field Description	Enter the password used to access the client Key Store.

Details	Content
Field Title	Confirm Password
Field Description	Reentered Key Password used to confirm the password.
	Note: The passwords in the Key Password and Confirm Password fields must match.

Details	Content
Field Title	Trust Store File
Field Description	Path to the Trust Store file.
Example	■ Microsoft Windows:
	D:\Oracle\Middleware\wlserver_ 10.3\server\lib\ProductionTrust.jks
	■ Novell SLEPOS:
	oracle/Middleware/wlserver_ 10.3/server/lib/ProductionTrust.jks

Details	Content
Field Title	Trust Store Password
Field Description	Enter the password used to access the Trust Store.

Details	Content
Field Title	Confirm Password
Field Description	Reentered Trust Store Password used to confirm the password.
	Note: The passwords in the Trust Store Password and Confirm Password fields must match.

Figure A–33   Optional: Configure Weblogic Admin Server SSL Key Store

This window is only displayed if **Deploy to Managed Server** is selected in the Weblogic Deploy Server Type window.

The field in this window is described in the following table:

Details	Content
Field Title	Configure SSL Key Store?
Field Description	Select whether the Admin Server will be configured for SSL:
	■ To configure the Admin Server for SSL, select **Yes**.
	■ To not configure the Admin Server for SSL, select **No**.

Figure A–34   Weblogic Admin Server SSL Key Store Details

This window is only displayed if **Yes** is selected in the Optional: Configure Weblogic Admin Server SSL Key Store window.

The fields in this window are described in the following tables:

Details	Content
Field Title	Key Store File
Field Description	Path to the Key Store file.
Example	■ Microsoft Windows: D:\Oracle\Middleware\wlserver_ 10.3\server\lib\ProductionIdentity.jks ■ Novell SLEPOS: oracle/Middleware/wlserver_ 10.3/server/lib/ProductionIdentity.jks

Details	Content
Field Title	Key Store Password
Field Description	Enter the password used to access the client Key Store.

Details	Content
Field Title	Confirm Password
Field Description	Reentered Key Store Password used to confirm the password. **Note:** The passwords in the Key Store Password and Confirm Password fields must match.

Details	Content
Field Title	Key Alias
Field Description	Alias used to access the Key Store file.
Example	myalias

Details	Content
Field Title	Key Password
Field Description	Enter the password used to access the client Key Store.

Details	Content
Field Title	Confirm Password
Field Description	Reentered Key Password used to confirm the password.
	Note: The passwords in the Key Password and Confirm Password fields must match.

Details	Content
Field Title	Trust Store File
Field Description	Path to the Trust Store file.
Example	■ Microsoft Windows: D:\Oracle\Middleware\wlserver_10.3\server\lib\ProductionTrust.jks ■ Novell SLEPOS: oracle/Middleware/wlserver_10.3/server/lib/ProductionTrust.jks

Details	Content
Field Title	Trust Store Password
Field Description	Enter the password used to access the Trust Store.

Details	Content
Field Title	Confirm Password
Field Description	Reentered Trust Store Password used to confirm the password.
	Note: The passwords in the Trust Store Password and Confirm Password fields must match.

Figure A–35   Central Office JMS Server Details

This window is only displayed if **Central Office** is selected in the Integrate Applications window.

The fields in this window are described in the following tables:

Details	Content
Field Title	CO JMS Host Name
Field Description	Name of the Central Office JMS server.
	Note: Always use the actual host name and not the IP address or "localhost". There may be problems integrating with Point-of-Service if the actual host name is not used.

Details	Content
Field Title	CO JMS Port
Field Description	Port number used by the Central Office JMS server.
Example	7001

Figure A–36   Returns Management JMS Server Details

This window is only displayed if **Returns Management** is selected in the Integrate Applications window.

The fields in this window are described in the following tables:

Details	Content
Field Title	RM JMS Host Name
Field Description	Name of the Returns Management JMS server.
	Note: Always use the actual host name and not the IP address or "localhost". There may be problems integrating with Point-of-Service if the actual host name is not used.

Details	Content
Field Title	RM JMS Port
Field Description	Port number used by the Returns Management JMS server.
Example	7001

Figure A–37   Secure JMS Server
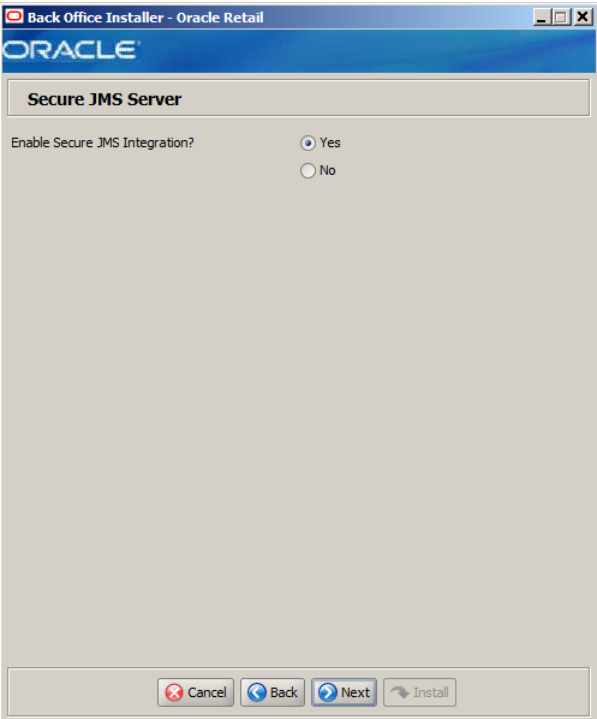
The field in this window is described in the following table:

Details	Content
Field Title	Enable Secure JMS Integration?
Field Description	This window gives you the option to use secure integration with the JMS server.
Example	Yes

Figure A–38 Manual Deployment Option

The field in this window is described in the following table:

Details	Content
Field Title	Deploy BackOffice ear file to app server?
Field Description	By default, the installer will deploy the ear file and copy files under the application server ORACLE_HOME. This window gives you the option to leave ORACLE_HOME unmodified and configure the application in the staging area for use in a manual installation at a later time. This option can be used in situations where modifications to files under ORACLE_HOME must be reviewed by another party before being applied.
	If you choose No, see "Manual Deployment of the Back Office Application" in Chapter 3 for the manual steps you need to perform after the installer completes.
Example	Yes

Figure A–39   Application Deployment Details
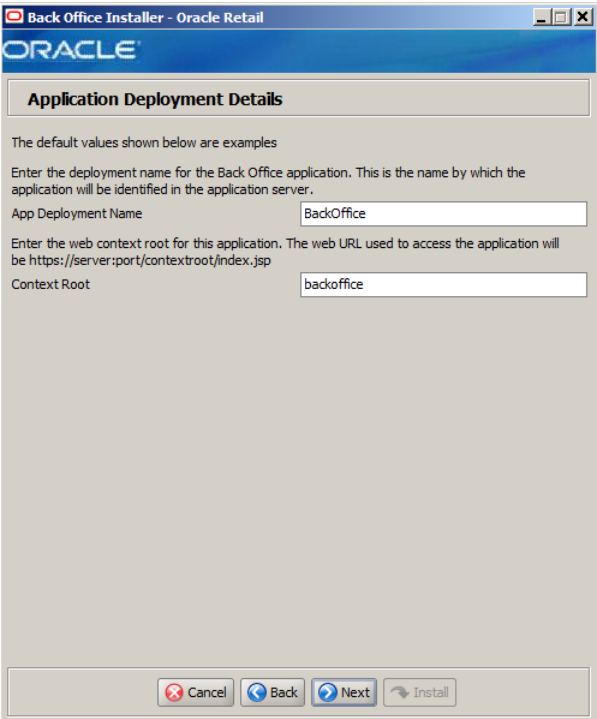
The fields in this window are described in the following tables:

Details	Content
Field Title	App Deployment Name
Field Description	Name by which the Back Office application will be identified in the application server.
Example	BackOffice

Details	Content
Field Title	Context Root
Field Description	Path under the HTTPS URL that will be used to access the Back Office application.
Example	backoffice

Figure A–40   Install Parameters Options
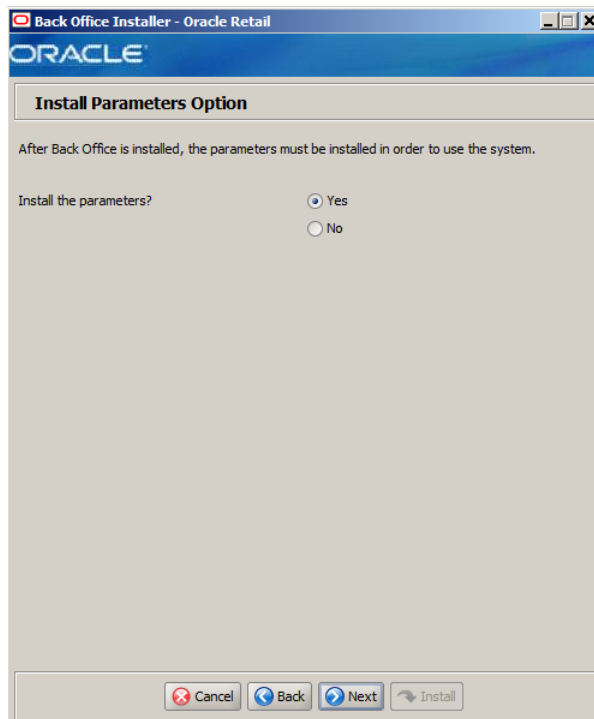
This window is only displayed if **No** is selected in the Manual Deployment Option window.

The field in this window is described in the following table:

Details	Content
Field Title	Install the parameters?
Field Description	The application parameters must be set up before Back Office can be used. This window gives you the option to set up the parameters manually. If you choose No, see "Install Parameters" in Chapter 3 for the manual steps you need to perform after the installer completes.
Example	Yes

Figure A–41   Value-Added Tax (VAT)

The field in this window is described in the following table:

Details	Content
Field Title	Enable VAT?
Field Description	Sets whether Value-Added Tax is used in Back Office. ■ To enable Back Office to use VAT, choose **Yes**. ■ To not use VAT, choose **No**.
Example	No

Figure A–42   Turn Off the Application Server's Non-SSL Port

The field in this window is described in the following table:

Details	Content
Field Title	Disable non-SSL port?
Field Description	Sets whether connecting to the application server requires a secured connection.
	Note: It is recommended that you disable the non-SSL port in order to increase the security of your environment.
	■ To disable the use of a non-SSL port, choose **Yes**.
	■ To enable using a non-SSL port, choose **No**.
	If you select **Yes**, see "Disabled Non-SSL Port" in Chapter 3.
Example	Yes

Figure A–43   Logging Detail Options
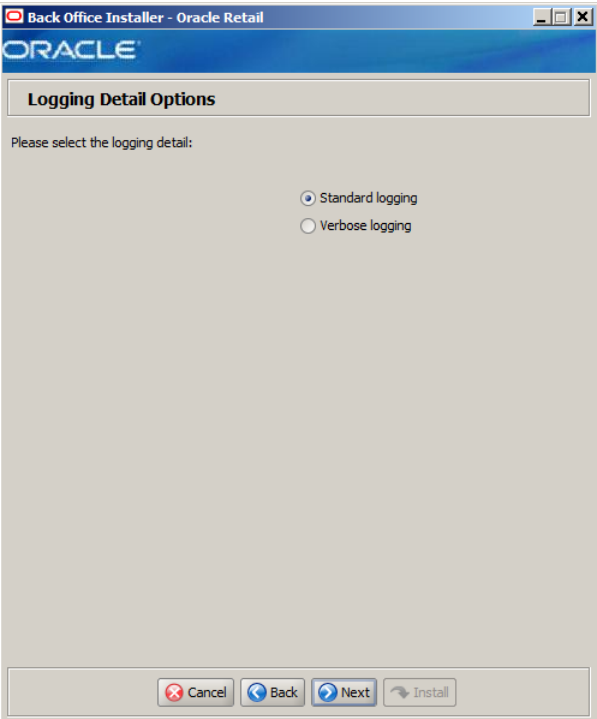
The field in this window is described in the following table:

Details	Content
Field Title	Please select the logging detail
Field Description	Choose the level of logging.
	■ To only log some of the messages, choose **Standard Logging**.
	■ To log all of the messages, choose **Verbose Logging**.
Example	Standard logging

Figure A–44   Installation Progress

Figure A–45   Installation Complete

B

Appendix: Installer Silent Mode

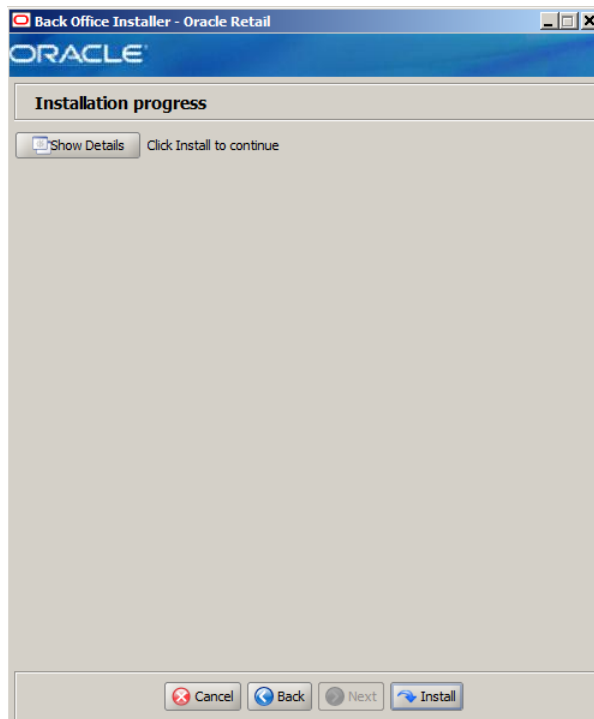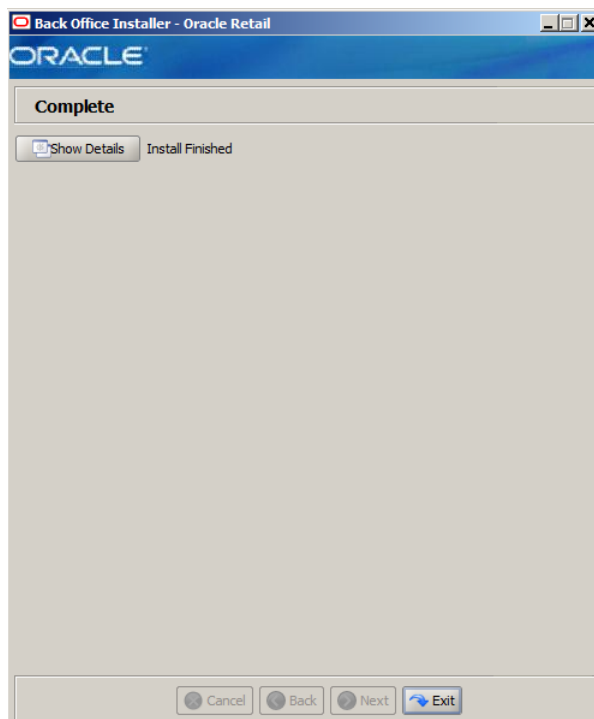In addition to the GUI and text interfaces of the Back Office installer, there is a silent mode that can be run. This mode is useful if you wish to run a new installation and use the settings you provided in a previous installation. It is also useful if you encounter errors during an installation and wish to continue after resolving them.

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 and the `cwallet.sso` file is created. In the second phase, this properties file is used to provide your settings for the installation.

To skip the first phase and reuse the `ant.install.properties` and `cwallet.sso` files 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. If the previous install was successful, the `cwallet.sso` file is found in the installation directory for that install. Copy the `cwallet.sso` file to `<INSTALL_DIR>` for this silent install.

3. Run the installer again with the silent argument:

   - Microsoft Windows:

     ```
     install.cmd silent
     ```

   - Novell SLEPOS:

     ```
     install.sh silent
     ```

4. After the installation is successfully completed, the CREATE SYNONYM privilege must be revoked. In the installer console window, it prompts for a database administrator to run the revokesyn SQL script to revoke the privilege. The script is found in the `<INSTALL_DIR>` directory.

Figure B–1   Installer Prompt to Run revokesyn


```
revokesyn:
     [echo] Generating revokesyn.sql script with datasource username userds
     [echo] ---------------------------------------------------------------
     [echo] Revoke Create Synonym Privilege for Role or Schema User
     [echo] ---------------------------------------------------------------
     [echo] To complete this installation, a database administrator must ensure
that the
     [echo] CREATE SYNONYM privilege has been revoked from the data source user
and from
     [echo] any roles granted to that user.  The revokesyn.sql script located in
 the
     [echo] installation directory may be used as a template, replacing the text
 <Role_or_User>
     [echo] with the role or user for which CREATE SYNONYM was granted.
    [input] When the privilege has been revoked, please press the Enter key to c
ontinue.
```

For information on granting this privilege on Microsoft Windows, see "Create the Database Schema Owner and Data Source Connection Users" in Chapter 3. For information on granting this privilege on Novell SLEPOS, see "Create the Database Schema Owner and Data Source Connection Users" in Chapter 4.

C

Appendix: Reinstalling Back Office

Back Office does not provide the capability to uninstall and reinstall the application. If you need to run the Back Office installer again, perform the following steps.

Reinstalling Back Office

To reinstall:

1. If you are using a managed server, stop the managed server. Stop the WebLogic server.

2. Delete the domain.

3. Recreate the Back Office domain. If you are using a managed server, add the managed server as part of recreating the domain.

4. If you are using a managed server, start the managed server. Start the administration domain.

5. Run the Back Office installer:

   ■ For information for Microsoft Windows, see "Run the Back Office Application Installer" in Chapter 3.

   ■ For information for Novell SLEPOS, see "Run the Back Office Application Installer" in Chapter 4.

D

Appendix: URL Reference

Both the database schema and application installers for the Back Office product will ask for several different URLs. These include the following:

JDBC URL for a Database

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

Syntax: `jdbc:oracle:thin:@[host]:[tcpPort]:[dbname]`

- `[host]`: host name of the database server
- `[tcpPort]`: database listener port
- `[dbname]`: system identifier for the database

For example, `jdbc:oracle:thin:@myhost:1525:mydatabase`

Secure JDBC URL for a Database

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

Syntax:
`jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS=(PROTOCOL=tcps)(HOST=[host])(PORT=[tcpsPort]))(CONNECT_DATA=(SERVICE_NAME=[dbname])))`

- `[host]`: host name of the database server
- `[tcpsPort]`: database listener port
- `[dbname]`: system identifier for the database

For example,
`jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS=(PROTOCOL=tcps)(HOST=myhost1)(PORT=7004))(CONNECT_DATA=(SERVICE_NAME=mydatabase1)))`

JNDI Provider URL for an Application

Used for server-to-server calls between applications.

Syntax: `t3://<host>:<port>`

- `<host>`: host name selected when the WebLogic domain was created
- `<port>`: port number selected when the WebLogic domain was created

For example, `t3://adminserver:7001`

Deployer URI

Used by the Oracle Ant tasks to deploy an application to a WebLogic domain. 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.

Syntax: `input.deployer.uri = t3://<host>:<port>`

- `<host>`: host name selected when the WebLogic domain was created

- `<port>`: port number selected when the WebLogic domain was created

For example, `input.deployer.uri = t3://localhost:7003`

E

Appendix: Common Installation Errors

This appendix describes some common errors encountered during installation of Back Office.

JMS Queues Do Not Work

If there is no infrastructure for IPv6 protocol, you must disable IPv6:

- To disable IPv6 on Microsoft Windows, see the following web site:

  http://support.microsoft.com/kb/929852

- To disable IPv6 on Novell SLEPOS, consult with your System Administrator on the specific steps needed.

Unreadable Buttons in the Installer

If you are unable to read the text within the installer buttons, it probably means that your JAVA_HOME needs to be set to a version 7 JDK. Set JAVA_HOME to a Java development kit of version 7 or later and run the installer again.

WebLogic Domain Does Not Exist

Symptom:

The application installer quits with the following error message:

```
BUILD FAILED
C:\tmp\j2ee\orbo\staging\ORBO-trunk\build.xml:941: The following error occurred
 while executing this line:
C:\tmp\j2ee\orbo\staging\ORBO-trunk\build-common-wl.xml:83: startWebLogic.sh
 under C:/Oracle/Middleware/user_projects/domains/base_domain is missing.
 Installation cannot continue.
```

Solution:

This error occurs because the WebLogic domain provided does not exist.

Make sure that the domain exists, and then check the ant.install.properties file for entry mistakes. Pay close attention to the input.deployer.uri (see Appendix D), 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 B).

WebLogic Domain Server is Not Started

Symptom:

The application installer quits with the following error message:

```
BUILD FAILED
C:\tmp\j2ee\orbo\staging\ORBO-trunk\build.xml:1022: The following error occurred w
hile executing this line:
C:\tmp\j2ee\orbo\staging\ORBO-trunk\build-common-wl.xml:152: url http://localhost:
7001/console is not available. Installation cannot continue.
```

Solution:

This error occurs because the WebLogic domain server provided is not running.

Make sure that the WebLogic domain server is running, and then check the ant.install.properties file for entry mistakes. Pay close attention to the input.deployer.uri (see Appendix D), input.wl.domain.path, 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 B).

F

Appendix: Installation Order

This appendix provides a guideline for the order in which the Oracle Retail applications should be installed. If a retailer has chosen to use only some of the applications, the order is still valid, less the applications not being installed.

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

Enterprise Installation Order

1. Oracle Retail Merchandising System (RMS), Oracle Retail Trade Management (RTM), Oracle Retail Sales Audit (ReSA). Optional: Oracle Retail Fiscal Management (ORFM)

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

2. Oracle Retail Service Layer (RSL)

3. Oracle Retail Extract, Transform, Load (RETL)

4. Oracle Retail Active Retail Intelligence (ARI)

5. Oracle Retail Warehouse Management System (RWMS)

6. Oracle Retail Invoice Matching (ReIM)

7. Oracle Retail Price Management (RPM)

   > **Note:** During installation of RPM, you are asked for the RIBforRPM provider URL. Since RIB is installed after RPM, make a note of the URL you enter. If you need to change the RIBforRPM provider URL after you install RIB, you can do so by editing 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)

12. Oracle Retail Store Inventory Management (SIM)

> **Note:** During installation of SIM, you are asked for the RIB provider URL. Since RIB is installed after SIM, make a note of the URL you enter. If you need to change the RIB provider URL after you install RIB, you can do so by editing 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 Modeling Engine (ORME)

17. Oracle Retail Assortment and Space Optimization (ASO)

18. Oracle Retail Replenishment Optimization (RO)

19. Oracle Retail Analytic Parameter Calculator Replenishment Optimization (APC-RO)

20. Oracle Retail Regular Price Optimization (RPO)

21. Oracle Retail Merchandise Financial Planning (MFP)

22. Oracle Retail Size Profile Optimization (SPO)

23. Oracle Retail Assortment Planning (AP)

24. Oracle Retail Item Planning (IP)

25. Oracle Retail Item Planning Configured for COE (IP COE)

26. Oracle Retail Advanced Inventory Planning (AIP)

27. Oracle Retail Integration Bus (RIB)

28. Oracle Retail Services Backbone (RSB)

29. Oracle Retail Financial Integration (ORFI)

30. Oracle Retail Point-of-Service (ORPOS)

31. Oracle Retail Markdown Optimization (MDO)

32. Oracle Retail Clearance Optimization Engine (COE)

33. Oracle Retail Analytic Parameter Calculator for Markdown Optimization (APC-MDO)

34. Oracle Retail Analytic Parameter Calculator for Regular Price Optimization (APC-RPO)

35. Oracle Retail Analytics