

Oracle® Retail Mobile Point-of-Service

Installation Guide

Release 12.0.9

November 2008

Copyright © 2007, 2008, Oracle. All rights reserved.

Primary Author: Bernadette Goodman

The Programs (which include both the software and documentation) contain proprietary information; they are provided under a license agreement containing restrictions on use and disclosure and are also protected by copyright, patent, and other intellectual and industrial property laws. Reverse engineering, disassembly, or decompilation of the Programs, except to the extent required to obtain interoperability with other independently created software or as specified by law, is prohibited.

The information contained in this document is subject to change without notice. If you find any problems in the documentation, please report them to us in writing. This document is not warranted to be error-free. Except as may be expressly permitted in your license agreement for these Programs, no part of these Programs may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose.

If the Programs are delivered to the United States Government or anyone licensing or using the Programs on behalf of the United States Government, the following notice is applicable:

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the Programs, including documentation and technical data, shall be subject to the licensing restrictions set forth in the applicable Oracle license agreement, and, to the extent applicable, the additional rights set forth in FAR 52.227-19, Commercial Computer Software--Restricted Rights (June 1987). Oracle USA, Inc., 500 Oracle Parkway, Redwood City, CA 94065.

The Programs are not intended for use in any nuclear, aviation, mass transit, medical, or other inherently dangerous applications. It shall be the licensee's responsibility to take all appropriate fail-safe, backup, redundancy and other measures to ensure the safe use of such applications if the Programs are used for such purposes, and we disclaim liability for any damages caused by such use of the Programs.

Oracle, JD Edwards, PeopleSoft, and Siebel are registered trademarks of Oracle Corporation and/or its affiliates. Other names may be trademarks of their respective owners.

The Programs may provide links to Web sites and access to content, products, and services from third parties. Oracle is not responsible for the availability of, or any content provided on, third-party Web sites. You bear all risks associated with the use of such content. If you choose to purchase any products or services from a third party, the relationship is directly between you and the third party. Oracle is not responsible for: (a) the quality of third-party products or services; or (b) fulfilling any of the terms of the agreement with the third party, including delivery of products or services and warranty obligations related to purchased products or services. Oracle is not responsible for any loss or damage of any sort that you may incur from dealing with any third party.

Value-Added Reseller (VAR) Language

Oracle Retail VAR Applications

The following restrictions and provisions only apply to the programs referred to in this section and licensed to you. You acknowledge that the programs may contain third party software (VAR applications) licensed to Oracle. Depending upon your product and its version number, the VAR applications may include:

- (i) the software component known as **ACUMATE** developed and licensed by Lucent Technologies Inc. of Murray Hill, New Jersey, to Oracle and imbedded in the Oracle Retail Predictive Application Server - Enterprise Engine, Oracle Retail Category Management, Oracle Retail Item Planning, Oracle Retail Merchandise Financial Planning, Oracle Retail Advanced Inventory Planning and Oracle Retail Demand Forecasting applications.
- (ii) the **MicroStrategy** Components developed and licensed by MicroStrategy Services Corporation (MicroStrategy) of McLean, Virginia to Oracle and imbedded in the MicroStrategy for Oracle Retail Data Warehouse and MicroStrategy for Oracle Retail Planning & Optimization applications.
- (iii) the **SeeBeyond** component developed and licensed by Sun Microsystems, Inc. (Sun) of Santa Clara, California, to Oracle and imbedded in the Oracle Retail Integration Bus application.
- (iv) the **Wavelink** component developed and licensed by Wavelink Corporation (Wavelink) of Kirkland, Washington, to Oracle and imbedded in Oracle Retail Store Inventory Management.
- (v) the software component known as **Crystal Enterprise Professional and/or Crystal Reports Professional** licensed by Business Objects Software Limited ("Business Objects") and imbedded in Oracle Retail Store Inventory Management.
- (vi) the software component known as **Access Via™** licensed by Access Via of Seattle, Washington, and imbedded in Oracle Retail Signs and Oracle Retail Labels and Tags.
- (vii) the software component known as **Adobe Flex™** licensed by Adobe Systems Incorporated of San Jose, California, and imbedded in Oracle Retail Promotion Planning & Optimization application.
- (viii) the software component known as **Style Report™** developed and licensed by InetSoft Technology Corp. of Piscataway, New Jersey, to Oracle and imbedded in the Oracle Retail Value Chain Collaboration application.
- (ix) the software component known as **i-net Crystal-Clear™** developed and licensed by I-NET Software Inc. of Berlin, Germany, to Oracle and imbedded in the Oracle Retail Central Office and Oracle Retail Back Office applications.
- (x) the software component known as **DataBeacon™** developed and licensed by Cognos Incorporated of Ottawa, Ontario, Canada, to Oracle and imbedded in the Oracle Retail Value Chain Collaboration application.

Contents

Preface	ix
Audience.....	ix
Related Documents	ix
Customer Support	ix
Review Patch Documentation	x
Oracle Retail Documentation on the Oracle Technology Network	x
Conventions	x
 1 Pre-Installation Tasks	
Check Hardware and Software Requirements	1-1
ISD Authorization Transaction Testing	1-2
 2 Installation on the Oracle Stack using Windows	
Expanding the Mobile Point-of-Service Distribution.....	2-1
Obtaining Third-Party Library Files Required by Mobile Point-of-Service	2-1
Running the Mobile Point-of-Service Application Installer.....	2-1
Resolving Errors Encountered During Application Installation	2-2
Fixing the Security in your JRE	2-2
Setting Register Accountability.....	2-2
Performing the Manual Integration.....	2-2
Setting the Class Path Entries.....	2-2
Setting Up Files.....	2-3
Enabling Parameter Updates.....	2-4
Enabling Writing to the EJournal.....	2-4
Results of the Installation.....	2-5
Running Mobile Point-of-Service.....	2-5
 3 Installation on the IBM Stack using Linux	
Expanding the Mobile Point-of-Service Distribution.....	3-1
Obtaining Third-Party Library Files Required by Mobile Point-of-Service	3-1
Running the Mobile Point-of-Service Application Installer.....	3-2
Resolving Errors Encountered During Application Installation	3-2
Fixing the Security in your JRE	3-2

Setting Register Accountability.....	3-2
Performing the Manual Integration.....	3-3
Configuring Files.....	3-3
Enabling Parameter Updates.....	3-3
Enabling Writing to the EJournal.....	3-4
Results of the Installation.....	3-5
Running Mobile Point-of-Service.....	3-5

A Appendix: Mobile Point-of-Service Application Installer Screens

B Appendix: Common Installation Errors

"Mpos installer finished with errors"	B-1
"Dispatcher.main, Exception: java.security.AccessControlException: access denied (java.util.PropertyPermission * read,write)"	B-1

List of Figures

A-1	Introduction	A-1
A-2	Previous MPOS Install	A-2
A-3	License Agreement	A-2
A-4	Choose Install Folder	A-3
A-5	Choose Install Set	A-3
A-6	Default Locale	A-4
A-7	Supported Locales	A-5
A-8	Server Location	A-5
A-9	Where is jdk1.4.2 located?	A-6
A-10	jdk1.4.2 does not exist	A-7
A-11	Third Party Jars	A-7
A-12	What is the hostname of this mpos server?	A-8
A-13	Value-Added Tax (VAT)	A-9
A-14	Pre-Installation Summary	A-9
A-15	Install Complete	A-10

List of Tables

1-1	Mobile Point-of-Service Server Requirements.....	1-1
1-2	Mobile Point-of-Service Handheld Requirements	1-2
1-3	ISD Authorization Transaction Set Tested	1-2
2-1	<mpos_install_directory> Subdirectories	2-5
2-2	<mpos_install_directory\mpos Subdirectories.....	2-5
3-1	<mpos_install_directory> Subdirectories	3-5
3-2	<mpos_install_directory>/mpos Subdirectories	3-5

Preface

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

Audience

This Installation Guide is written for the following audiences:

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

Related Documents

For more information, see the following documents in the Oracle Retail Mobile Point-of-Service documentation set or in the Oracle Retail Point-of-Service documentation set:

- *Oracle Retail Mobile Point-of-Service Release Notes*
- *Oracle Retail Mobile Point-of-Service Operations Guide*
- *Oracle Retail Mobile Point-of-Service User Guide*

Customer Support

- <https://metalink.oracle.com>

When contacting Customer Support, please provide:

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

Review Patch Documentation

If you are installing the application for the first time, you install either a base release (for example, 12.0) or a later patch release (for example, 12.0.2). If you are installing a software version other than the base release, be sure to read the documentation for each patch release (since the base release) before you begin installation. Patch documentation can contain critical information related to the base release and code changes that have been made since the base release.

Oracle Retail Documentation on the Oracle Technology Network

In addition to being packaged with each product release (on the base or patch level), all Oracle Retail documentation is available on the following Web site (with the exception of the Data Model which is only available with the release packaged code):

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

Documentation should be available on this Web site within a month after a product release. Note that documentation is always available with the packaged code on the release date.

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.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
<code>monospace</code>	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Pre-Installation Tasks

Mobile Point-of-Service is a subset of Point-of-Service. It provides wireless access to Point-of-Service functions through the use of a handheld device.

Mobile Point-of-Service runs as a process on the store server. The server process passes Point-of-Service information to the wireless devices. The wireless devices run a web browser interface and connect to a specific URL to talk to the server process. The server process does not have a user interface.

Mobile Point-of-Service transactions propagate the same way as Point-of-Service transactions. They are stored in a POSlog and can be sent to Oracle Retail Central Office in an xml file or by queue.

Note: The Oracle stack and IBM stack are the configurations that were tested for this release. The components required for each stack are listed in this chapter. For each component, the product and the version that were used for testing are included. While Mobile Point-of-Service may work in other configurations, these are the configurations that are supported for this release.

Check Hardware and Software Requirements

Table 1–1 and Table 1–2 list the general requirements for hardware and software and the versions tested for this release:

Table 1–1 Mobile Point-of-Service Server Requirements

Component	Oracle Stack	IBM Stack
Hardware	x86-32 bit	x86-32 bit
Operating System	Windows 2003 Server	IBM IRES v2.1.4
Database	Oracle 10g R2 (10.2.0.2.0)	DB2 Express v9.1
J2EE Application Server	Oracle 10g AS/R3 (10.1.3)	IBM WebSphere 6.1
J2EE Application Server JVM	Sun 1.4.2.x	(included in WRS)
JDK	Sun build 1.4.2_13-b06	IBM build cxia32142-20060421 (SR5)
System Management Agents	Oracle Enterprise Manager 10g version 10.2	Oracle Enterprise Manager 10g version 10.2

Table 1–2 Mobile Point-of-Service Handheld Requirements

Component	Oracle Stack and IBM Stack
Handheld wireless device	Symbol 8146
Printer	Zebra Cameo II Printer/MSR with Zebra Active X control version 1.8 preinstalled
Operating System	Microsoft Windows Mobile 2003 version 4.20 using Pocket IE packaged with Pocket PC

Note: All testing was completed with 128-bit encryption turned on.

ISD Authorization Transaction Testing

ISD authorization transaction testing was done with Web Sentry version 249. The capture method used was terminal capture. The following applications were tested:

- ISD Host Switch version 6.2.1.0015
- ISD Store and Forward module version 6.2.1.001

Note: Host capture is not supported.

[Table 1–3](#) shows the transaction types and messages that were tested.

Table 1–3 ISD Authorization Transaction Set Tested

Transaction Type	Transaction Type Message Sent from ISD to Mobile Point-of-Service
Credit Card Tender	■ Credit Card Sale Approval ■ Credit Card Sale Decline

Installation on the Oracle Stack using Windows

This chapter provides information about the installation procedures for Oracle Retail Mobile Point-of-Service on the Oracle stack using Windows.

Expanding the Mobile Point-of-Service Distribution

To extract the Mobile Point-of-Service files:

1. Extract the `ORMPOS-12.09.zip` file from the Mobile Point-of-Service distribution.
2. Copy or upload `ORMPOS-12.09.zip` to the installation directory and extract its contents. In this installation guide, `<INSTALL_DIR>` is used for that directory.

Obtaining Third-Party Library Files Required by Mobile Point-of-Service

The Mobile Point -of-Service application uses JBoss specific files. You can download the jboss application server to get access to the required files. You can get the download at the website:

http://sourceforge.net/project/showfiles.php?group_id=22866&package_id=16942&release_id=312621

Extract the following files:

- `jboss-4.0.2\lib\jboss-common.jar`
- `jboss-4.0.2\client\jboss-j2ee.jar`
- `jboss-4.0.2\client\jbossmq-client.jar`

Running the Mobile Point-of-Service Application Installer

This installer will configure and deploy the Mobile Point-of-Service application.

Note: To see details on every screen and field in the application installer, see [Appendix A](#).

1. Change to the `<INSTALL_DIR>` directory.
2. Set the `JAVA_HOME` environment variable. It should point to your jdk.

3. Run the `MPOS.exe` script. This will launch the installer. After installation is complete, a detailed installation log file is created at `<mpos_install_directory>\mpos\logs\installer_log.txt`

Resolving Errors Encountered During Application Installation

If the application installer encounters any errors, you can read them in the above mentioned log file.

For a list of common installation errors, see [Appendix B](#).

Fixing the Security in your JRE

To set up the security for the Mobile Point-of-Service application, do the following:

- Copy `<mpos_install_directory>\jre\lib\security\java.security` to `$JAVA_HOME$\jre\lib\security\java.security`.
- Copy `<mpos_install_directory>\jre\lib\security\java.policy` to `$JAVA_HOME$\jre\lib\security\java.policy`.

Setting Register Accountability

The register accountability setting for each wireless device must be updated to enable register-authorized mode as opposed to cashier-authorized mode. Each device is treated as a register with a register number equal to the last three digits of its IP address.

Note: An example of a register IP address is 172.16.33.4. The actual IP address is 172.016.033.004, where 004 are the last three digits.

Execute the following SQL statement once for each device. In this example, 001 are the last three digits of the actual IP address of the device and 04241 is the store ID.

```
update as_ws set cd_act='0' where id_ws='001' and id_str_rt='04241'
```

Performing the Manual Integration

The following steps need to be completed manually to enable Mobile Point-of-Service to communicate with Back Office and Central Office. These steps enable Mobile Point-of-Service to receive parameter updates and to send EJournal data up to Central Office.

Setting the Class Path Entries

Add the following class path entries to the

`<mpos_install_directory>\mpos\bin\ulenv.bat` file:

```
SET CLASSPATH=%CLASSPATH%;%_360COMMON_PATH%\common\build\oc4j-internal.jar
SET CLASSPATH=%CLASSPATH%;%_360COMMON_PATH%\common\build\javax77.jar
SET CLASSPATH=%CLASSPATH%;%_360COMMON_PATH%\common\build\jms.jar
SET CLASSPATH=%CLASSPATH%;%_360COMMON_PATH%\common\build\optic.jar
```

Setting Up Files

To set up the .properties files:

1. If Back Office is installed, set up the file for Back Office. In the "ORACLE" section of the `<mpos_install_directory>\mpos\lib\config\backoffice.jndi.properties` file, uncomment the following commands:

```
java.naming.provider.url=ormi://localhost:12401
java.naming.factory.initial=
    com.evermind.server.rmi.RMIInitialContextFactory
java.naming.security.principal=oc4jadmin
java.naming.security.credentials=oc4jadmin
```

Note: If Oracle Retail Back Office is installed on a different host or Back Office does not use the default RMI port of 12401, change the URL to the correct value.

If Oracle Application Server does not use the default user ID and password, change the values for principal and credentials to the correct user ID and password.

2. In the "ORACLE" section of the `<mpos_install_directory>\mpos\bin\jndi.properties` file, uncomment the following commands:

```
java.naming.provider.url=ormi://localhost:12401
java.naming.factory.initial=
    com.evermind.server.rmi.RMIInitialContextFactory
java.naming.security.principal=oc4jadmin
java.naming.security.credentials=oc4jadmin
```

Note: If Oracle Retail Back Office is installed on a different host or Back Office does not use the default RMI port of 12401, change the URL to the correct value.

If Oracle Application Server does not use the default user ID and password, change the values for principal and credentials to the correct user ID and password.

3. Set up the `<mpos_install_directory>\mpos\bin\comm.properties` file. In the "ORACLE" section, uncomment the following commands:

```
comm.jms.topicConnectionFactory.name=jms/ApplicationTCF
comm.jms.queueConnectionFactory.name=jms/ApplicationQCF
comm.jms.topicConnectionFactory.name.backoffice=
   .jms/ApplicationTCF
com.jms.queueConnectionFactory.name.backoffice=
   .jms/ApplicationQCF
```

Note: If there are additional `comm.properties` files under `<mpos_install_directory>\mpos` directory, delete the files.

Enabling Parameter Updates

You can apply parameters to multiple registers by creating parameter sets in Back Office and then distributing the parameter sets. Parameter updates are sent to a specific Mobile Point-of-Service register. The updates are then shared by all Mobile Point-of-Service registers.

To distribute updated parameters from Back Office to Mobile Point-of-Service:

1. Specify a Mobile Point-of-Service register number.

To define the register number, set the `WorkstationID` parameter in the

`<mpos_install_directory>\mpos\lib\config\applications.properties` file. Any valid Mobile Point-of-Service register can be used.

2. Edit the `<mpos_install_directory>\mpos\lib\com\extendyourstore\unleashed\services\main\ntierdispatcher.xml` file.

The `ParameterTechnician` section should look like the following example:

```
<TECHNICIAN name="ParameterTechnician" class = "ParameterTechnician"
    package = "com.extendyourstore.foundation.manager.parameter" export = "Y" >
  <PROPERTY propname="paramScript" propvalue=
    "classpath://config/manager/PosParameterTechnician.xml"/>
  <PROPERTY propname="JmsProviderTopicName" propvalue="jms/parameters"/>
  <PROPERTY propname="listenForUpdates" propvalue="Y"/>
  <PROPERTY propname="clientID" propvalue="reg001"/>
  <PROPERTY propname="jmsID" propvalue="oc4jadmin"/>
  <PROPERTY propname="jmsPassword" propvalue="oc4jadmin"/>
</TECHNICIAN>
```

If Oracle Application Server is not using the default user ID and password, change `jmsID` and `jmsPassword` shown in the previous example to the user ID and password being used.

Note: The value of `clientID` must match the `WorkstationID` specified in the `application.properties` file.

If Oracle Application Server does not use the default user ID and password, change the values for `principal` and `credentials` to the correct user ID and password.

Enabling Writing to the EJournal

Define whether Mobile Point-of-Service writes to the EJournal through the queue or the database or both.

To define how Mobile Point-of-Service writes to the EJournal:

1. Edit the `<mpos_install_directory>\mpos\lib\com\extendyourstore\unleashed\services\main\ntierdispatcher.xml` file in one of the following ways:
 - To write to the EJournal through the queue, uncomment the `QueuedJournalManager` section.
 - To write to the EJournal through the database, uncomment the `DBJournalTech` section.

- To write to the EJournal through both the queue and the database, uncomment both the QueuedJournalManager and DBJournalTech sections.
2. Edit the `<mpos_install_directory>\mpos\lib\config\manager\PosJournalManager.xml` file. To write to the EJournal through the queue, uncomment the JMSJournalTech section.

Results of the Installation

The default root directory for the application is `c:\OracleRetailStore`. In this guide, these directories are referred to as `<mpos_install_directory>`. The subdirectories listed in [Table 2-1](#) are created.

Table 2-1 `<mpos_install_directory>` Subdirectories

Name	Contents
360common	Files shared by multiple Oracle Retail Strategic Store Solutions applications including 360Platform, Domain, and third party jar files
jre	Java runtime environment security files
logs	Log files
mpos	Mobile Point-of-Service files
Uninstaller Data	Files for uninstalling Mobile Point-of-Service

Important subdirectories of the `\mpos` directory are shown in [Table 2-2](#).

Table 2-2 `<mpos_install_directory>\mpos` Subdirectories

Name	Description
bin	Startup batch files and shell scripts
lib	Mobile Point-of-Service application and resource .jar files
lib\config	XML configuration files, .properties files and .dat files
3rd party	Third party source .jar files
logs	Log files (additional log files are in the bin directory)

Running Mobile Point-of-Service

Run the Mobile Point-of-Service system by executing batch files, found in your installation bin directory.

Before running Mobile Point-of-Service, the store server must be running. Also, the store must be open before transactions can be completed with Mobile Point-of-Service. If the store server is not running, use the following script:

```
<pos_install_directory>\pos\bin\StoreServerConduit.bat
```

To run Mobile Point-of-Service:

1. Start the Mobile Point-of-Service server. If it is not running, use the following script. This script also starts the Apache Tomcat web server.

```
<mpos_install_directory>\mpos\bin\ulremote.bat
```

2. Open a browser. Enter the following for the URL, where
<mpos-server-hostname> is the hostname or IP address of the machine
running the store server and the Mobile Point-of-Service process:
`http:\\<mpos-server-hostname>\unleashed\WebServerCRFServlet`

Installation on the IBM Stack using Linux

This chapter provides information about the installation procedures for Oracle Retail Mobile Point-of-Service on the IBM stack using Linux.

Expanding the Mobile Point-of-Service Distribution

To extract the Mobile Point-of-Service files:

1. Extract the ORMPOS-12.09.zip file from the Mobile Point-of-Service distribution.
2. Copy or upload ORMPOS-12.09.zip to the installation directory and extract its contents. In this installation guide, `<INSTALL_DIR>` is used for that directory.

Obtaining Third-Party Library Files Required by Mobile Point-of-Service

The Mobile Point-of-Service application uses specific files from JBoss and WebSphere. To obtain the necessary files:

1. To get the required JBoss files, download the jboss application server. You can get the download at the website:

http://sourceforge.net/project/showfiles.php?group_id=22866&package_id=16942&release_id=312621

Extract the following files:

- jboss-4.0.2/lib/jboss-common.jar
 - jboss-4.0.2/client/jboss-j2ee.jar
 - jboss-4.0.2/client/jbossmq-client.jar
2. Some WebSphere specific files are needed to make use of JMS. Extract the required files from the following locations:
 - `<WAS_INSTALL_DIR>/AppServer/plugins/com.ibm.ws.runtime_6.1.0.jar`
 - `<WAS_INSTALL_DIR>/AppServer/runtimes/com.ibm.ws.admin.client_6.1.0.jar`
 - `<MQ_INSTALL_DIR>/java/lib/jms.jar`
 - `<WAS_INSTALL_DIR>/AppServer/lib/WMQ/java/lib/com.ibm.mqjms.jar`
 - `<WAS_INSTALL_DIR>/AppServer/lib/WMQ/java/lib/com.ibm.mq.jar`

- `<WAS_INSTALL_DIR>/AppServer/lib/WMQ/java/lib/dhbc core.jar`

Running the Mobile Point-of-Service Application Installer

This installer will configure and deploy the Mobile Point-of-Service application.

Note: To see details on every screen and field in the application installer, see [Appendix A](#).

1. Change to the `<INSTALL_DIR>` directory.
2. Set the `JAVA_HOME` environment variable. It should point to your jdk.
3. Change the mode of `MPOS.bin` to executable.
4. Run the `MPOS.bin` script. This will launch the installer. After installation is complete, a detailed installation log file is created at `<mpos_install_directory>/mpos/logs/installer_log.txt`

Resolving Errors Encountered During Application Installation

If the application installer encounters any errors, you can read them in the above mentioned log file.

For a list of common installation errors, see [Appendix B](#).

Fixing the Security in your JRE

To set up the security for the Mobile Point-of-Service application, do the following:

- Copy `<POS_install_directory>/360common/jre_adjustments/lib/security/java.security.ibm` to `$JAVA_HOME$/jre/lib/security/java.security`.
- Copy `<POS_install_directory>/360common/jre_adjustments/lib/security/java.policy` to `$JAVA_HOME$/jre/lib/security/java.policy`.

Setting Register Accountability

The register accountability setting for each wireless device must be updated to enable register-authorized mode as opposed to cashier-authorized mode. Each device is treated as a register with a register number equal to the last three digits of its IP address.

Note: An example of a register IP address is 172.16.33.4. The actual IP address is 172.016.033.004, where 004 are the last three digits.

Execute the following SQL statement once for each device. In this example, 001 are the last three digits of the actual IP address of the device and 04241 is the store ID.

```
update as_ws set cd_act='0' where id_ws='001' and id_str_rt='04241'
```

Performing the Manual Integration

There following steps need to be completed manually to enable Mobile Point-of-Service to communicate with Back Office and Central Office. These steps enable Mobile Point-of-Service to receive parameter updates and to send EJournal data to Central Office.

Configuring Files

To set up the `.properties` files:

1. Update the `/etc/hosts` file with the host names of the Back Office and Central Office servers and the IP address and host name where Point-of-Service is installed. This step is required for JMS messaging to work properly.

2. Add the following class path entries to the `<mpos_install_directory>/mpos/bin/ulenv.sh` file.

```
CP=$CP:<WAS_INSTALL_DIR>/AppServer/plugins/com.ibm.ws.runtime_6.1.0.jar
CP=$CP:<WAS_INSTALL_DIR>/AppServer/runtimes/com.ibm.ws.admin.client_6.1.0.jar
CP=$CP:<MQ_INSTALL_DIR>/java/lib/jms.jar
CP=$CP:<WAS_INSTALL_DIR>/AppServer/lib/WMQ/java/lib/com.ibm.mqjms.jar
CP=$CP:<WAS_INSTALL_DIR>/AppServer/lib/WMQ/java/lib/com.ibm.mq.jar
CP=$CP:<WAS_INSTALL_DIR>/AppServer/lib/WMQ/java/lib/dhbc.jar
```

3. If Back Office is installed, set up the file for Back Office. In the "WebSphere" section of the `<mpos_install_directory>/mpos/lib/config/backoffice.jndi.properties` file, uncomment the following commands:

```
java.naming.provider.url=corbaloc:iiop:<Back Office host name>:
<Back Office port number>
```

4. In the `<mpos_install_directory>/mpos/bin/jndi.properties` file, uncomment the following commands:

```
java.naming.provider.url=corbaloc:iiop:<Back Office host name>:
<Back Office port number>
```

5. Set up the `<mpos_install_directory>/mpos/bin/comm.properties` file. Uncomment the following commands:

```
comm.jms.topicConnectionFactory.name=jms/ApplicationTCF
comm.jms.queueConnectionFactory.name=jms/ApplicationQCF
comm.jms.topicConnectionFactory.name.backoffice=
   .jms/ApplicationTCF
comm.jms.queueConnectionFactory.name.backoffice=
   .jms/ApplicationQCF
```

Note: If there are additional `comm.properties` files under `<mpos_install_directory>/mpos` directory, delete the files.

Enabling Parameter Updates

You can apply parameters to multiple registers by creating parameter sets in Back Office and then distributing the parameter sets. Parameter updates are sent to a specific Mobile Point-of-Service register. The updates are then shared by all Mobile Point-of-Service registers.

To distribute updated parameters from Back Office to Mobile Point-of-Service:

1. Specify a Mobile Point-of-Service register number.

To define the register number, set the WorkstationID parameter in the `<mpos_install_directory>/mpos/lib/config/applications.properties` file. Any valid Mobile Point-of-Service register can be used.

2. Edit the `<mpos_install_directory>/mpos/lib/com/extendyourstore/unleashed/services/main/ntierdispatcher.xml` file.

Update the ParameterTechnician section. Comment out the entries in the "Oracle" section and uncomment the entries in the "WebSphere" section.

The ParameterTechnician section should look like the following example:

```
<TECHNICIAN name="ParameterTechnician" class = "ParameterTechnician"
    package = "com.extendyourstore.foundation.manager.parameter" export = "Y" >
<PROPERTY propname="paramScript" propvalue=
    "classpath://config/manager/PosParameterTechnician.xml"/>
<PROPERTY propname="JmsProviderTopicName" propvalue="jms/parameters"/>
<PROPERTY propname="listenForUpdates" propvalue="Y"/>
<PROPERTY propname="clientID" propvalue="reg001"/>
<PROPERTY propname="jmsID" propvalue="<UNIX user>"/>
<PROPERTY propname="jmsPassword" propvalue="<password>"/>
</TECHNICIAN>
```

Note: The value of `clientID` must match the WorkstationID specified in the `application.properties` file.

Note: You must create a UNIX user on the host where Back Office is installed and add that user to the `mqm` group. The values for `jmsID` and `jmsPassword` specified in the Password Technician definition must match the values for the UNIX user and password.

Enabling Writing to the EJournal

Define whether Mobile Point-of-Service writes to the EJournal through the queue or the database or both.

To define how Mobile Point-of-Service writes to the EJournal:

1. Edit the `<mpos_install_directory>/mpos/lib/com/extendyourstore/unleashed/services/main/ntierdispatcher.xml` file in one of the following ways:
 - To write to the EJournal through the queue, uncomment the QueuedJournalManager section.
 - To write to the EJournal through the database, uncomment the DBJournalTech section.
 - To write to the EJournal through both the queue and the database, uncomment both the QueuedJournalManager and DBJournalTech sections.

2. Edit the `<mpos_install_directory>/mpos/lib/config/manager/PosJournalManager.xml` file. To write to the EJournal through the queue, uncomment the JMSJournalTech section.

Results of the Installation

The default root directory for the application is `/opt/OracleRetailStore`. In this guide, these directories are referred to as `<mpos_install_directory>`. The subdirectories listed in [Table 3-1](#) are created.

Table 3-1 `<mpos_install_directory>` Subdirectories

Name	Contents
360common	Files shared by multiple Oracle Retail Strategic Store Solutions applications including 360Platform, Domain, and third party jar files
jre	Java runtime environment security files
logs	Log files
mpos	Mobile Point-of-Service files
Uninstaller Data	Files for uninstalling Mobile Point-of-Service

Important subdirectories of the `/mpos` directory are shown in [Table 3-2](#).

Table 3-2 `<mpos_install_directory>/mpos` Subdirectories

Name	Description
bin	Startup batch files and shell scripts
lib	Mobile Point-of-Service application and resource .jar files
lib/config	XML configuration files, .properties files and .dat files
3rd party	Third party source .jar files
logs	Log files (additional log files are in the bin directory)

Running Mobile Point-of-Service

Run the Mobile Point-of-Service system by executing shell scripts, found in your installation bin directory.

Before running Mobile Point-of-Service, the store server must be running. Also, the store must be open before transactions can be completed with Mobile Point-of-Service. If the store server is not running, use the following script.

```
<pos_install_directory>/pos/bin/StoreServerConduit.sh
```

To run Mobile Point-of-Service:

1. Start the Mobile Point-of-Service server. If it is not running, use the following script. This script also starts the Apache Tomcat web server.

```
<mpos_install_directory>/mpos/bin/ulremote.sh
```

2. Open a browser. Enter the following for the URL, where `<mpos-server-hostname>` is the hostname or IP address of the machine running the store server and the Mobile Point-of-Service process:

```
http://<mpos-server-hostname>/unleashed/WebServerCRFServlet
```

Appendix: Mobile Point-of-Service Application Installer Screens

You need the following details about your environment for the installer to successfully install the Mobile Point-of-Service application. Depending on the options you select, you may not see some screens or fields.

For each field on a screen, a table is included in this appendix that describes the field. If you want to document any specific information about your environment for any field, a Notes row is provided in each table for saving that information.

Figure A-1 Introduction

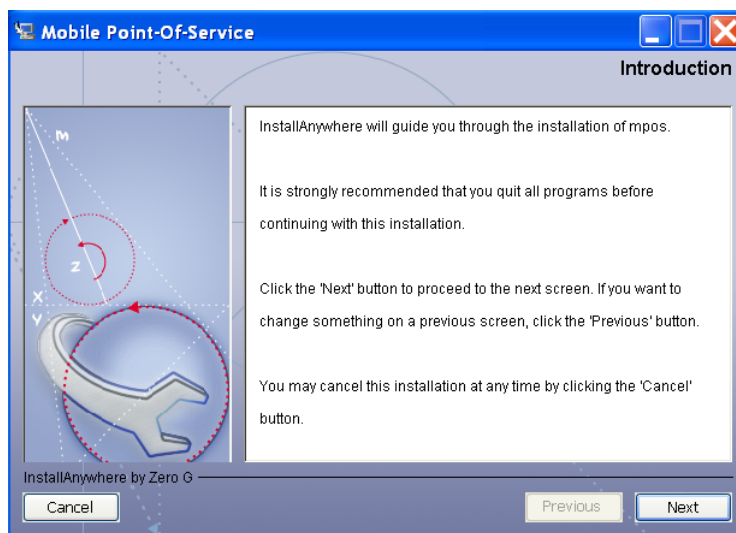


Figure A–2 Previous MPOS Install

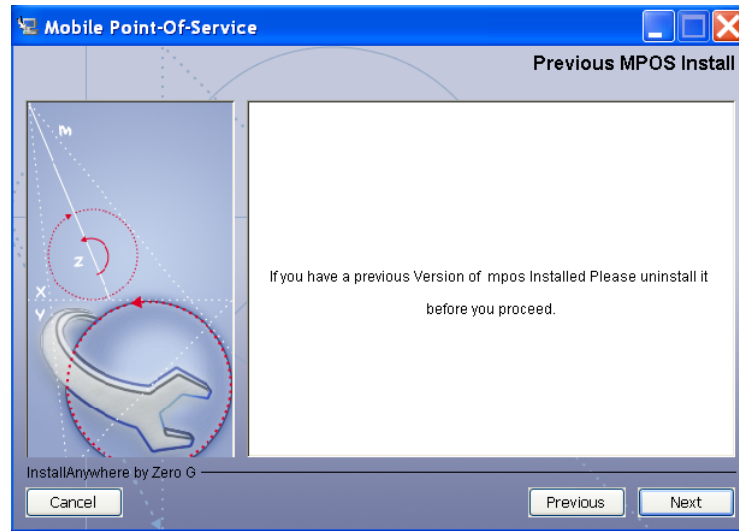
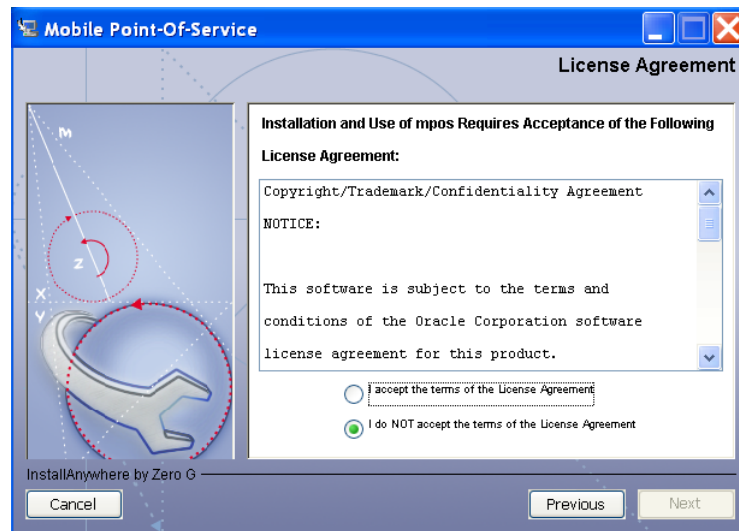
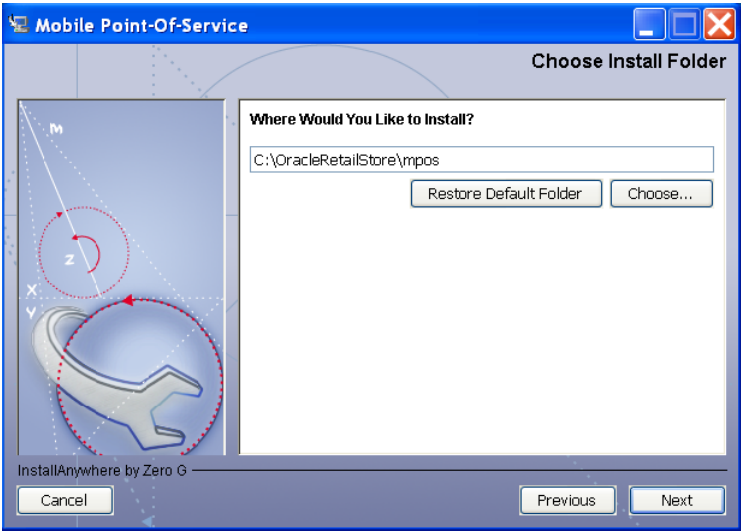


Figure A–3 License Agreement



Note: You must choose to accept the terms of the license agreement in order for the installation to continue.

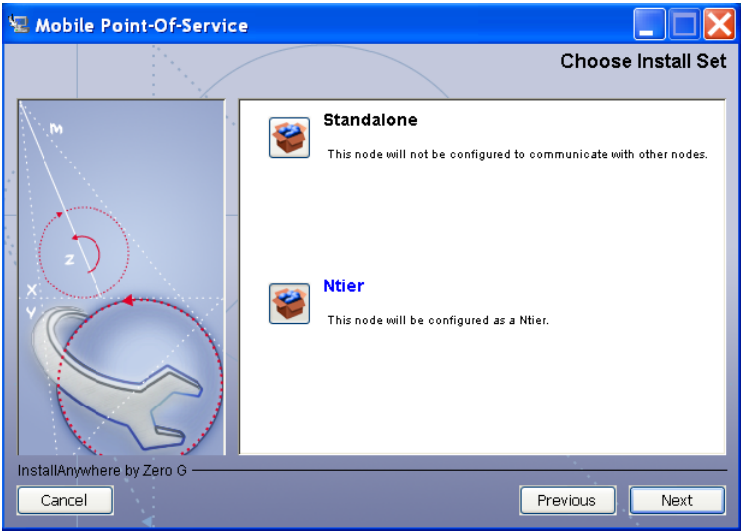
Figure A-4 Choose Install Folder



The field on this screen is described in the following table.

Field Title	Where Would You Like to Install?
Field Description	The directory into which the Mobile Point-of-Service files are copied. The default for the first directory in the path is <code>OracleRetailStore</code>. This directory should be the same for all Oracle Retail Strategic Store Solutions products. In this guide, <code><mpos_install_directory></code> refers to the selected installation directory. Files specific to Mobile Point-of-Service are copied to the <code>/mpos</code> subdirectory of <code><mpos_install_directory></code>.
Example	<code>C:\OracleRetailStore</code>
Notes	

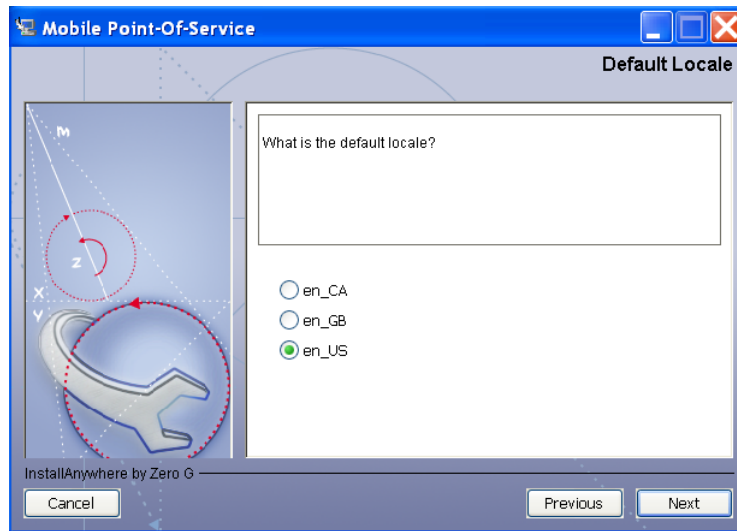
Figure A-5 Choose Install Set



The field on this screen is described in the following table.

Field Title	Server Tier Type
Field Description	Choose the server tier type for this installation. ■ To run a standalone version, choose Stand-alone. ■ To run the N-tier version, choose N-Tier.
Example	N-Tier
Notes	

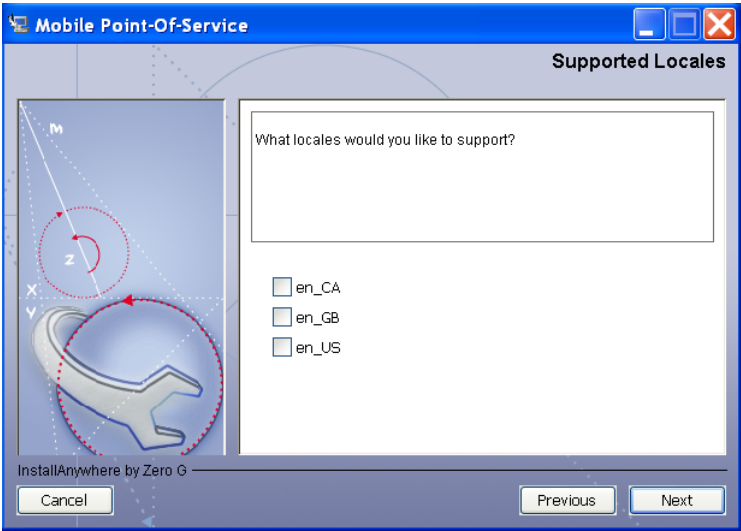
Figure A–6 *Default Locale*



The field on this screen is described in the following table.

Field Title	What is the default locale?
Field Description	Limited locale support in Mobile Point-of-Service enables the date, time, and currency to be displayed in the format for the selected default locale. ■ To select the locale for Canada, choose en_CA. ■ To select the locale for Great Britain, choose en_GB. ■ To select the local for the United States, choose en_US. Note: The only language currently supported is United States English.
Example	en_US
Notes	

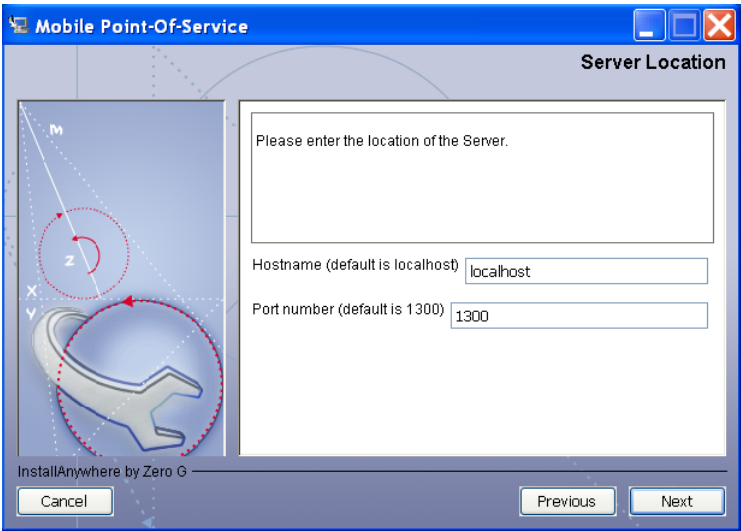
Figure A-7 Supported Locales



The field on this screen is described in the following table.

Field Title	What locales would you like to support?
Field Description	In addition to the default locale, additional locales can be supported. Limited locale support in Mobile Point-of-Service enables the date, time, and currency to be displayed in the format for the selected locale. ■ To select the locale for Canada, choose en_CA. ■ To select the locale for Great Britain, choose en_GB. ■ To select the local for the United States, choose en_US. Note: The only language currently supported is United States English.
Example	en_US
Notes	

Figure A-8 Server Location

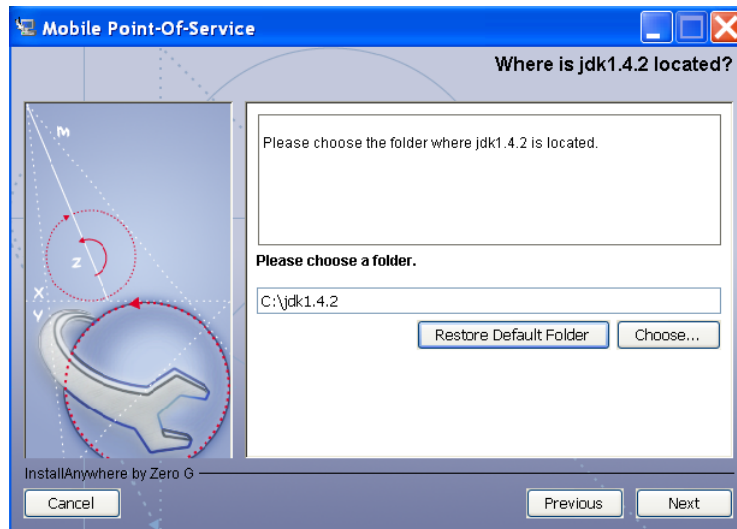


The fields on this screen are described in the following tables.

Field Title	Hostname
Field Description	Host name of the store server.
Example	localhost
Notes	

Field Title	Port
Field Description	Port number of the store server used for the communication between the store server and the host computer.
Example	1300
Notes	

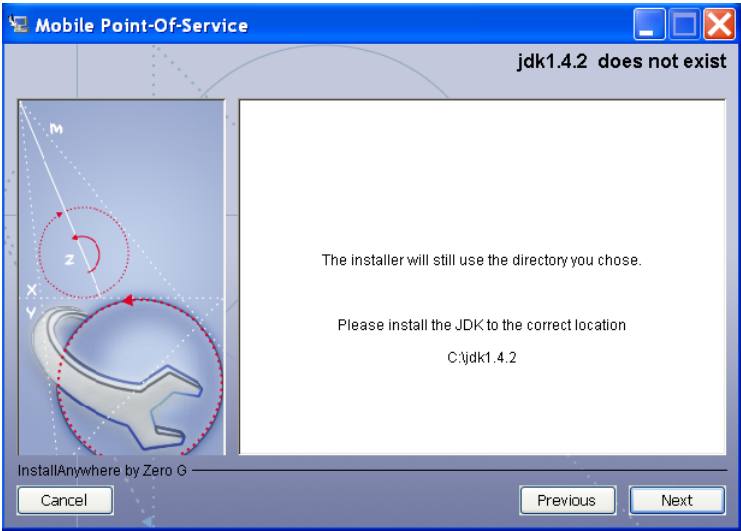
Figure A–9 *Where is jdk1.4.2 located?*



The field on this screen is described in the following table.

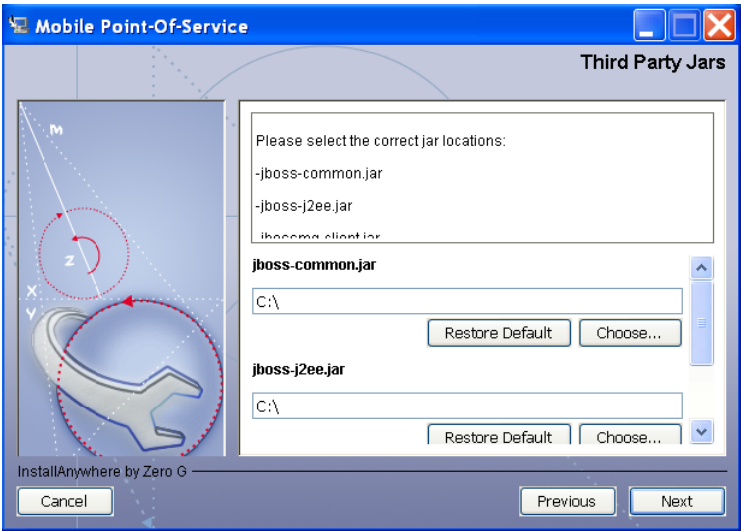
Field Title	Folder
Field Description	Choose the location of JDK 1.4.2.
Example	C:\j2sdk1.4.2_13
Notes	

Figure A-10 *jdk1.4.2 does not exist*



Installation of jdk1.4.2 is required.

Figure A-11 *Third Party Jars*



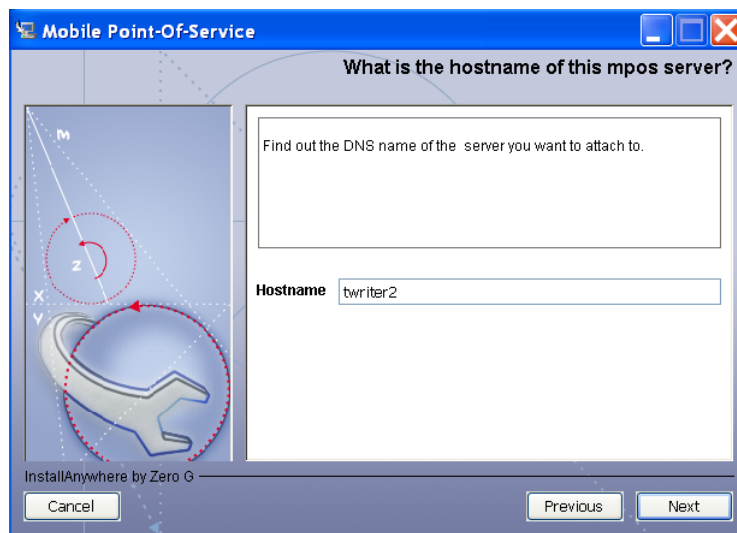
The fields on this screen are described in the following tables.

Field Title	jboss-common.jar
Field Description	Choose the location of the jboss-common.jar file.
Example	C:\jboss-4.0.2\lib\jboss-common.jar
Notes	

Field Title	jboss-j2ee.jar
Field Description	Choose the location of the jboss-j2ee.jar file.
Example	C:\jboss-4.0.2\lib\jboss-j2ee.jar
Notes	

Field Title	jbossmq-client.jar
Field Description	Choose the location of the jbossmq-client.jar file.
Example	C:\jboss-4.0.2\lib\jbossmq-client.jar
Notes	

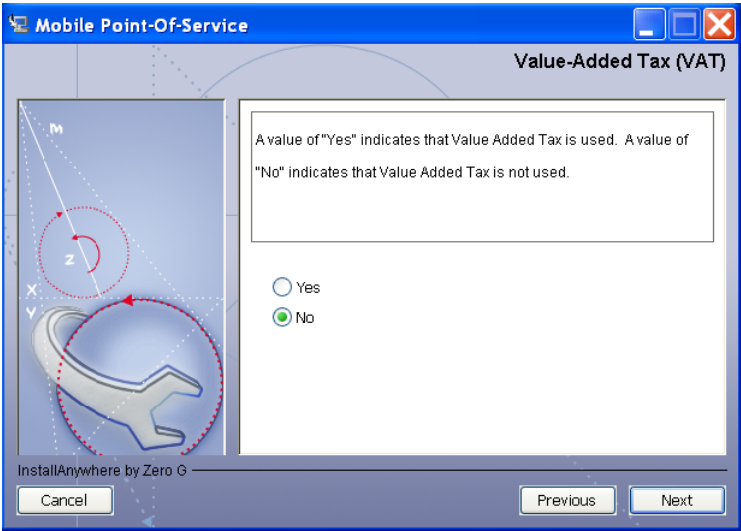
Figure A-12 *What is the hostname of this mpos server?*



The field on this screen is described in the following table.

Field Title	Corporate Server Name
Field Description	Enter the host name for the Mobile Point-of-Service server.
Example	twriter2
Notes	

Figure A-13 Value-Added Tax (VAT)



The field on this screen is described in the following table.

Field Title	Value-Added Tax
Field Description	Choose whether Value Added Tax is used.
Example	No
Notes	

Figure A-14 Pre-Installation Summary

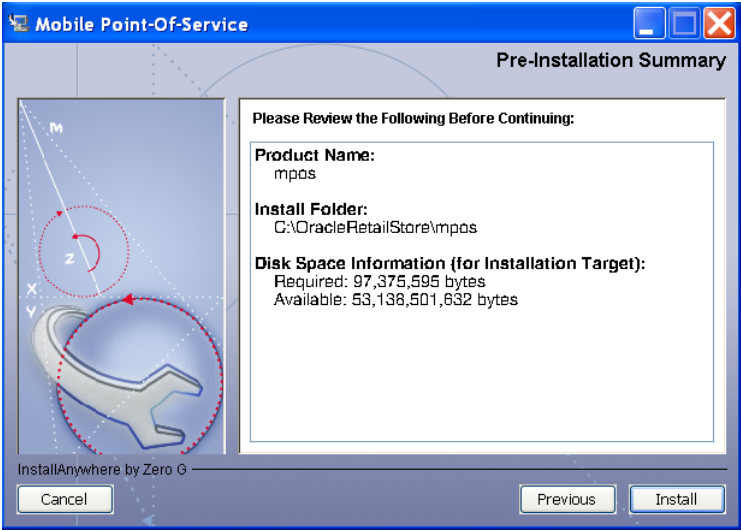
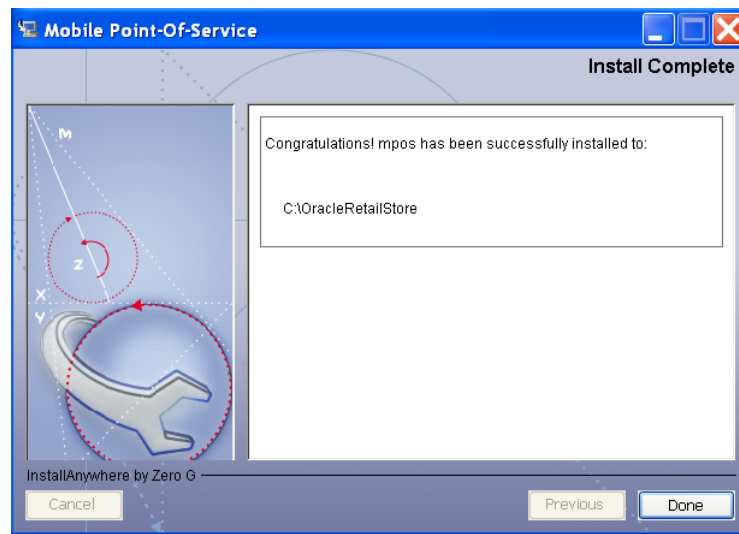


Figure A-15 *Install Complete*



Appendix: Common Installation Errors

This appendix describes some common errors encountered during installation of Mobile Point-of-Service.

"Mpos installer finished with errors"

If you see this error message, there could be some settings incorrectly set or problems with the installer itself. For more information, check the `OracleRetailStore/mpos/logs/installer_log.txt` file.

"Dispatcher.main, Exception: java.security.AccessControlException: access denied (java.util.PropertyPermission * read,write)"

Symptom:

The application dies when starting up:

```
[java] Dispatcher.main, Exception: java.security.AccessControlException: access
denied (java.util.PropertyPermission * read,write)
[java] java.security.AccessControlException: access denied
(java.util.PropertyPermission * read,write)
[java]      at java.security.AccessControlContext.checkPermission(Unknown
Source)
[java]      at java.security.AccessController.checkPermission(Unknown Source)
[java]      at java.lang.SecurityManager.checkPermission(Unknown Source)
[java]      at java.lang.SecurityManager.checkPropertiesAccess(Unknown Source)
[java]      at java.lang.System.getProperties(Unknown Source)
[java]      at
com.extendyourstore.foundation.tour.conduit.Dispatcher.<init>(Dispatcher.java:461)
[java]      at
com.extendyourstore.foundation.tour.conduit.Dispatcher.getDispatcher(Dispatcher.ja
va:1301)
[java]      at
com.extendyourstore.foundation.tour.conduit.Dispatcher.main(Dispatcher.java:2439)
[java]      at
com.extendyourstore.foundation.config.TierLoader.main(TierLoader.java:359)
```

Solution:

This error usually occurs because the JRE that you are pointing to does not contain the updated `java.security` and `java.policy` files.

"Dispatcher.main, Exception: java.security.AccessControlException: access denied (java.util.PropertyPermission * read,write)"
