

Oracle® Retail Mobile Point-of-Service
Operations Guide
Release 12.0

September 2007

Copyright © 2007, Oracle. All rights reserved.

Primary Author: Graham Fredrickson

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

(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**TM 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**TM 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**TM 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**TM 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 **WebLogic**TM developed and licensed by BEA Systems, Inc. of San Jose, California, to Oracle and imbedded in the Oracle Retail Value Chain Collaboration application.

(xi) the software component known as **DataBeacon**TM 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	ix
Oracle Retail Documentation on the Oracle Technology Network	x
Conventions	x
1 Technical Architecture	
Architecture	1-1
Terms	1-2
2 Configuration	
Setting and Modifying Parameters	2-1
Understanding Parameters XML Tags.....	2-1
Parameter File Hierarchy	2-2
Modifying Parameters in Parameter XML Files	2-2
Defining Security with Roles	2-2
RMI Time-out Configuration	2-2
Configuring RMI Hosts and Ports	2-2
Configuring Logging	2-3

List of Figures

1-1	Mobile Point-of-Service Communication Process.....	1-2
-----	--	-----

List of Tables

Preface

Oracle Retail Operations Guides contain the requirements and procedures that are necessary for the retailer to configure Mobile Point-of-Service, and extend code for a Mobile Point-of-Service implementation.

Audience

The audiences for this document are administrators and developers who install and configure the Oracle Retail Mobile Point-of-Service application.

Related Documents

For more information, see the following documents in the Oracle Retail Mobile Point-of-Service Release 12.0 documentation set:

- *Oracle Retail Mobile Point-of-Service Release Notes*
- *Oracle Retail Mobile Point-of-Service Installation 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

For a base release (".0" release, such as 12.0), Oracle Retail strongly recommends that you read all patch documentation before you begin installation procedures. Patch documentation can contain critical information related to the base release, based on new information 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:

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.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

Technical Architecture

Mobile Point-of-Service provides wireless access to a subset of the Oracle Retail Point-of-Service functions. Mobile Point-of-Service enables a cashier to use a handheld device to check out customers. This chapter introduces you to Mobile Point-of-Service. After reading this chapter, you should be able to:

- Log on and off
- Navigate the application

Mobile Point-of-Service uses the same tour framework as the Point-of-Service client to control the process flow of the user interface.

Mobile Point-of-Service also uses the same manager/technician framework as Point-of-Service.

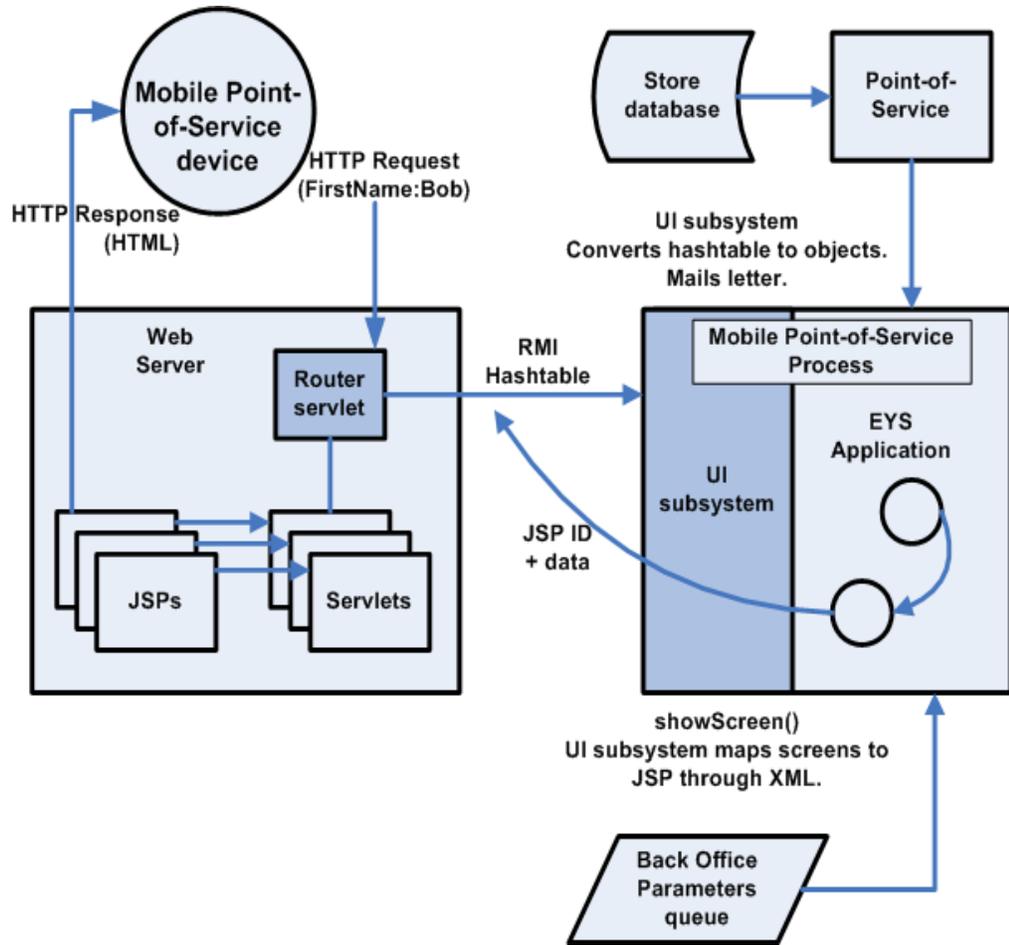
For more information, refer to the Oracle Retail Mobile Point-of-Service Operations Guide.

Architecture

Mobile Point-of-Service is a server-centric Java application. The following is an overview of the communication process:

1. The browser in the handheld unit communicates with a Java servlet that runs on a Web server.
2. The Java servlet communicates with Mobile Point-of-Service.
3. Mobile Point-of-Service changes its state based on the type of user input.
4. Mobile Point-of-Service selects the next screen to display, and invokes another Java servlet to dynamically create an HTML page.
5. The Java servlet delivers the HTML page to the browser on the handheld unit.

Figure 1-1 Mobile Point-of-Service Communication Process



Terms

Some terms are used in special ways with handheld devices:

Tap, Select, Click

Tapping and selecting are equivalent to clicking on handheld RF devices, such as the Symbol 8146.

Type, Enter

The terms **Type** or **Enter** mean to input alphanumeric text into the handheld RF device using any means available, such as writing with the stylus or selecting letters or numbers from the on-screen keyboards.

Configuration

This chapter covers options for configuring Mobile Point-of-Service normally carried out by an administrator before the system goes into general use.

Setting and Modifying Parameters

Most of the functionality of Mobile Point-of-Service depends directly on Point-of-Service. See the Oracle Retail Point-of-Service Operations Guide for detailed information on configuring the system. Note that the two applications access the same data, from the same store database; however, Mobile Point-of-Service cannot access the database on its own, it must access through the database through Point-of-Service server.

Although it uses the same kinds of parameters as Point-of-Service, Mobile Point-of-Service has its own store.xml and application.xml files for storing XML parameters, so it can use unique parameter values if desired. Because all wireless devices communicate with a single instance of Mobile Point-of-Service, the parameter values set for the Mobile Point-of-Service installation apply to all wireless devices.

Mobile Point-of-Service includes many configurable parameters; these parameters are used to control flow, set minimums and maximums for data, and enable flexibility without recompiling code.

The XML parameters are stored in a set of related parameter XML files. If you change parameter values, then all handheld devices will be affected. This is because there is only one set of parameters files for the Mobile Point-of-Service server.

Each parameter belongs to one and only one group and there is a security role for each group, so parameter access can be restricted to particular groups if desired. To define security roles for users, see “Defining Security with Roles”.

Understanding Parameters XML Tags

Refer to the Oracle Retail Strategic Store Solutions Configuration Guide to understand standard parameter properties.

Parameter File Hierarchy

The Mobile Point-of-Service application gets its parameter values from an interrelated set of XML files. More than one of these files can each contain values for the same parameters; a set of precedence rules determines which parameters actually take effect.

Note: The application.xml file contains all of the parameters and thus represents the default value set. The other files contain subsets of parameters.

Modifying Parameters in Parameter XML Files

Refer to the Oracle Retail Strategic Store Solutions Configuration Guide for information about how to modify parameters in an XML file. Changes made will effect all handheld devices the same way.

Defining Security with Roles

Refer to the procedures in the Point-of-Service Operations Guide for information about how to modify existing roles or add new ones.

RMI Time-out Configuration

To configure remote method invocation (RMI) time-outs refer to the Oracle retail Point-of-Service Operations Guide. The same settings apply to Mobile Point-of-Service except for the name of the file. Use `\OracleRetailStore\mpos\mpos\bin\comm.properties`.

Configuring RMI Hosts and Ports

The RMI host and port configuration are done in the `ntier_rmihost.xml` file and the `web.xml` file. In the `ntier_rmihost.xml` file, both the Mobile Point-of-Service server name and port number and the store server name and port number can be configured. The `web.xml` file is used to configure the port number that the Web server uses to communicate to the Mobile Point-of-Service server. This port number must match the port number for the Mobile Point-of-Service server defined in the `ntier_rmihost.xml` file. In the following code samples, values in bold indicate default values set during installation.

Do the following to set the location of the RMI host system for Mobile Point-of-Service:

1. Edit the `ntier_rmihost.xml` file, found in your `mpos\mpos\lib\com\extendyourstore\unleashed\config\startup` directory. On the `URL` tag with the tier `UNLEASHED`, set the name to the name of your RMI host. Set the port to the port number of the machine running Mobile Point-of-Service. See the following example:

```

<!DOCTYPE CRFHOSTS SYSTEM "classpath://com/extendyourstore/foundation/tour/dtd/
crfhost.dtd" [
]>
<CRFHOSTS transport="RMI">
  <URL name="store_server" port="1300" tier="DATATECHNICIAN"/>
  <URL name="rmi_hostname" port="1097" tier="UNLEASHED"/>
<XMLMANAGER class="XMLManager"
package="com.extendyourstore.foundation.manager.xml"/>
<XMLTECHNICIAN class="XMLTechnician" package="com.extendyourstore.foundation.
manager.xml"/>
</CRFHOSTS>

```

2. Edit the web.xml file found in

360store\360common\jakarta-tomcat-4.1.18\webapps\unleashed\WEB-INF. For the WebManager servlet tag, set the port param-value to the port number of the machine running the web server. Mobile Point-of-Service must be started at least once for this file to exist. If editing is required, restart Tomcat. See the following example:

```

<servlet>
<servlet-name>WebManager</servlet-name>
<servlet-class>com.extendyourstore.foundation.manager.gui.web.
WebServerCRFServlet</servlet-class>
<init-param>
<param-name>CRFhostname</param-name>
<param-value>localhost</param-value>
</init-param>
<init-param>
<param-name>port</param-name>
<param-value>1097</param-value>
</init-param>
</servlet>

```

Configuring Logging

Mobile Point-of-Service uses the Log4J tool. Configure Log4J by editing \OracleRetailStore\mpos\mpos\lib\config\log4j.xml. For more information, see the Apache documentation for Log4J at <http://logging.apache.org/log4j>.

