Oracle Utilities Mobile Workforce Management

Installation Guide

Release 2.2.0 Service Pack 1

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Oracle Utilities Mobile Workforce Management Installation Guide Release 2.2.0 Service Pack 1

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Preface

This guide describes how to install Oracle Utilities Mobile Workforce Management.

This preface contains these topics:

Audience

The Oracle Utilities Mobile Workforce Management Installation Guide is intended for system administrators installing Oracle Utilities Mobile Workforce Management.

To complete this installation you should have:

- Experience installing and configuring application servers and other software
- Administrative privileges on the host where you are installing the software

Related Documents

For more information, see these Oracle documents:

Installation, Configuration and Release Notes

- *Oracle Utilities Mobile Workforce Management Release Notes*
- *Oracle Utilities Mobile Workforce Management Quick Install Guide*
- *Oracle Utilities Mobile Workforce Management Installation Guide*
- *Oracle Utilities Mobile Workforce Management DBA Guide*
- *Oracle Utilities Mobile Workforce Management Configuration Guide*

User Guides

- *Oracle Utilities Mobile Workforce Management User's Guide*
- *Oracle Utilities Mobile Workforce Management Mobile Application User's Guide*

Map Editor Installation and User Guides

- *Oracle Utilities Mobile Workforce Management Map Editor User's Guide*
- *Oracle Utilities Mobile Workforce Management Map Editor Installation Guide*

Framework Guides

- *Oracle Utilities Application Framework v4.2.0.2 Business Process Guide*
- *Oracle Utilities Application Framework v4.2.0.2 Administration Guide*

Supplemental Documents

- *Oracle Utilities Mobile Workforce Management Server Administration Guide*
- *Oracle Utilities Mobile Workforce Management Batch Server Administration Guide*
- *Oracle Utilities Mobile Workforce Management Security Guide*

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.

Chapter 1

Overview

This chapter provides an overview of the installation of Oracle Utilities Mobile Workforce Management. This chapter includes information on the following:

- Installation Overview
- Installation Types
- Media Pack Components

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Installation Overview

Installing Oracle Utilities Mobile Workforce Management involves the following steps:

1. Review the different tiers of the application architecture as described in chapter Application Architecture Overview.
2. Understand the hardware requirements for installing the application and the supported platforms for the application and database servers as described in chapter Supported Platforms and Hardware Requirements.

   Note: The installation and administration of the database server tier is described in detail in the document *Oracle Utilities Mobile Workforce Management Database Administrator's Guide*.
3. Plan your installation and install all required third-party software as described in chapter Planning the Installation. The required software is listed for each supported combination of operating system and application server.
4. Install the database as described in the document *Oracle Utilities Mobile Workforce Management Database Administrator's Guide*.
5. Determine the type of installation and follow the instructions in the chapter corresponding to that type of installation.
6. Install the Mobile Client for Oracle Utilities Mobile Workforce Management on mobile devices as described in chapter Installing the Mobile Client
7. Follow the post-installation guidelines described in chapter Additional Tasks.

Installation Types

The first step in the installation procedure is to determine the installation type that meets your business requirements. The following are the possible installation types:

Initial Installation - a base installation, typically used for a production environment

Upgrade Installation- an upgrade installation from version 2.1.0.6 to version 2.2.0.1 or from version 2.2.0.0 to version 2.2.0.1

Demo Installation - a base installation with pre-populated demo data, typically used for demonstration or training purposes

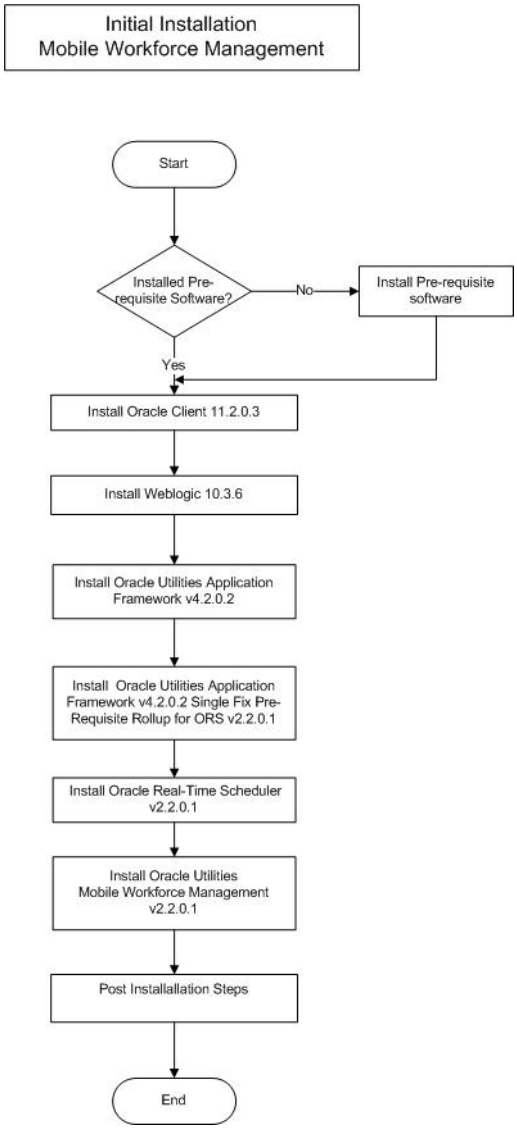
The following sections describe these installation types in detail.

Initial Installation

This installation type is applicable when installing Oracle Utilities Mobile Workforce Management for the first time or from scratch. For an initial install, you must install all of the following components:

- Database components
  Refer to the "Initial Install" section of the *Oracle Utilities Mobile Workforce Management Database Administrator's Guide* for more information.
- Application components
  - Oracle Utilities Application Framework v4.2.0.0 Service Pack 2 (also referred to as v4.2.0.2)
  - Oracle Utilities Application Framework v4.2.0.2 Single Fix Pre-Requisite Rollup for ORS v2.2.0.1
  - Oracle Real-Time Scheduler v2.2.0.1
  - Oracle Utilities Mobile Workforce Management v2.2.0.1

The following diagram shows a typical workflow of the initial installation process:



Refer to chapter Installing Oracle Utilities Mobile Workforce Management - Initial Installation for the detailed steps involved in installing each of these components.

Upgrade Installation

This installation type is applicable when upgrading Oracle Utilities Mobile Workforce Management. The possible upgrade paths are:

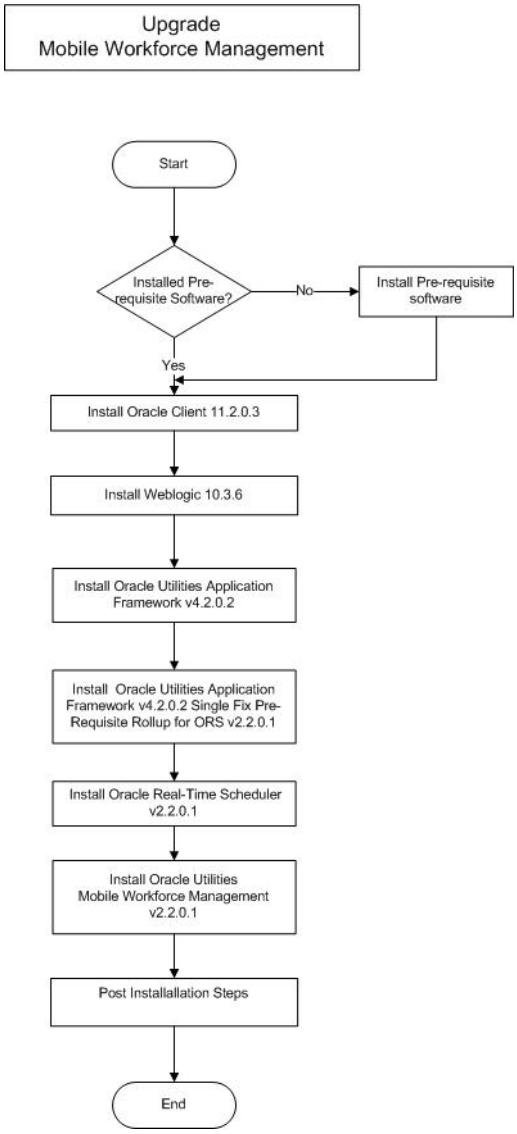
- Upgrading from version v2.1.0.6 to v2.2.0.1
- Upgrading from version v2.2.0.0 to v2.2.0.1

For an upgrade install, you must upgrade all of the following components:

- Database components
  Refer to the "Upgrade Install" section of the Oracle Utilities Mobile Workforce Management *Database Administrator's Guide* for more information.
- Application components
  - Oracle Utilities Application Framework v4.2.0.0 Service Pack 2 (also referred to as v4.2.0.2)

- Oracle Utilities Application Framework v4.2.0.2 Single Fix Pre-Requisite Rollup for ORS v2.2.0.1
- Oracle Real-Time Scheduler v2.2.0.1
- Oracle Utilities Mobile Workforce Management v2.2.0.1

The following diagram shows a typical workflow of the upgrade installation process:



Refer to chapter Upgrading Oracle Utilities Mobile Workforce Management for the steps involved in upgrading each of the above components.

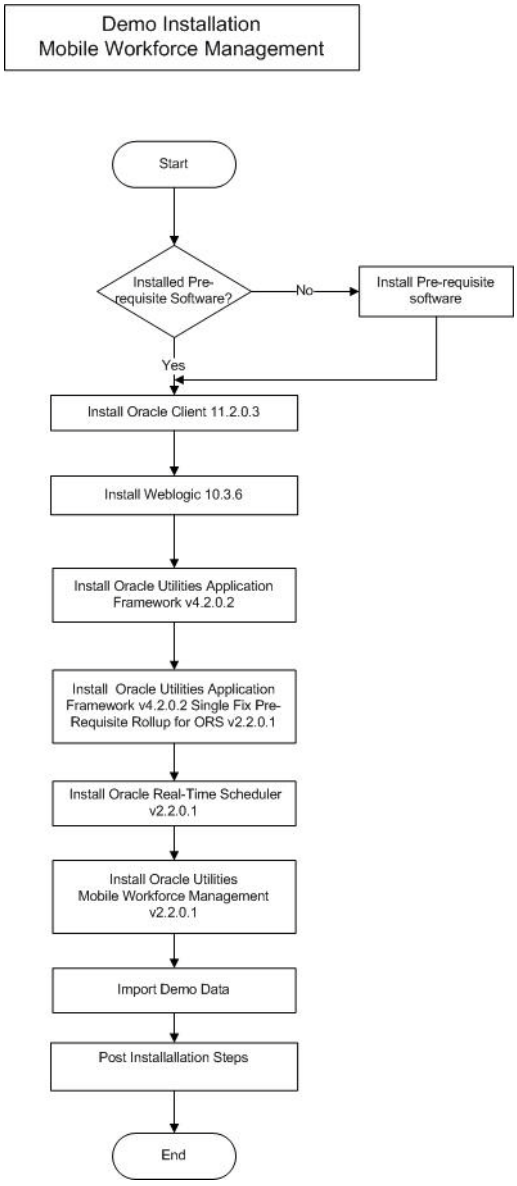
Demo Installation

This installation type is applicable when installing a demo application of Oracle Utilities Mobile Workforce Management for demonstration or training purposes. For a demo install, you must install all of the following components:

- Database components
  Refer to the "Demo Install" section of the Oracle Utilities Mobile Workforce Management *Database Administrator's Guide* for more information.

- Application components
  - Oracle Utilities Application Framework v4.2.0.0 Service Pack2 (also referred to as v4.2.0.2)
  - Oracle Utilities Application Framework v4.2.0.2 Single Fix Pre-Requisite Rollup for ORS v2.2.0.1
  - Oracle Real-Time Scheduler v2.2.0.1
  - Oracle Utilities Mobile Workforce Management v2.2.0.1

The following diagram shows a typical workflow of the demo installation process:



Refer to chapter Installing Oracle Utilities Mobile Workforce Management - Demo Installation for the steps involved in installing each of the above components.

Recommendations for Creating a Production Environment

Oracle recommends that a production environment is created by using the Initial Installation installation type as described above.

If there is any custom configuration that needs to be migrated from a development or "gold" environment into production, it can be done by using Configuration Migration Assistant (CMA). Please refer to Appendix D: Configuration Migration Assistant in Oracle Utilities Mobile Workforce Management Configuration Guide document for more details about CMA.

Oracle does NOT recommend creation of a production environment either by using a Demo Installation Type or by cloning an existing Demo installation.

Media Pack Components

Documentation Packages

- Oracle Utilities Mobile Workforce Management v2.2.0.1 Release Notes
- Oracle Utilities Mobile Workforce Management v2.2.0.1 Quick Install Guide
- Oracle Utilities Mobile Workforce Management v2.2.0.1 Install Documentation
- Oracle Utilities Mobile Workforce Management v2.2.0.1 User Documentation
- Oracle Utilities Mobile Workforce Management v2.2.0.1 Supplemental Documentation
- Oracle Real-Time Scheduler v2.2.0.1 Bugs PFD
- Oracle Utilities Mobile Workforce Management v2.2.0.1 Bugs PFD

Installation Packages

- Oracle Utilities Application Framework Service Pack2 v4.2.0.2
- Oracle Utilities Application Framework v4.2.0.2 Single Fix Prerequisite Rollup for Oracle Real-Time Scheduler v2.2.0.1
- Oracle Real-Time Scheduler v2.2.0.1 Multiplatform
- Oracle Utilities Mobile Workforce Management v2.2.0.1 Multiplatform
- Mobile Communication Client v2.2.0.1 for Windows
- Mobile Communication Client v2.2.0.1 for Windows Mobile
- Mobile Communication Client v2.2.0.1 for Android
- Oracle Utilities Mobile Workforce Management v2.2.0.1 Oracle Database
- Oracle Utilities Mobile Workforce Management v2.2.0.1 MapEditor

Chapter 2

Application Architecture Overview

This section provides an overview of the Oracle Utilities Mobile Workforce Management application architecture.

Application Architecture

The Oracle Utilities Mobile Workforce Management application is deployed on multiple tiers.

Please see the *Oracle Utilities Mobile Workforce Management Server Administration Guide* for a more detailed description of the application architecture and individual tiers.

Tier 1: Desktop/Client, or Presentation Tier

This tier is implemented in a browser-based client. Users use a desktop client web browser to log in to and use the Oracle Utilities Mobile Workforce Management application. Note also that a desktop machine running Microsoft Windows and the Oracle client is required to perform some of the product installation steps.

Tier 2: Mobile Client Tier

This tier is implemented on mobile computers such as laptops and handhelds. Users can install the mobile client software to use the mobile functionality of Oracle Utilities Mobile Workforce Management.

Tier 3: Web Application / Business Application Server, or Business Logic Tier

This tier is implemented in a web application or business application server. The business application component can be installed as part of the web application server, or as a separate component. Except where explicitly noted, most of the Oracle Utilities Mobile Workforce Management installation documentation assumes that the web application and business application servers reside together.

Tier 4: Database, or Persistence Tier

This tier is implemented in a database server. The database server stores data maintained by the Oracle Utilities Mobile Workforce Management application. More specifically, the database tier contains the data server files and database executables that physically store the tables, indexes, and other database objects for your system.

Chapter 3

Supported Platforms and Hardware Requirements

This chapter includes:

Software and Hardware Considerations

There are many factors that can influence software and hardware decisions. For example, your system may have to satisfy specific performance, availability, or scalability requirements, or to support running in a language other than English. These business requirements, together with the chosen system architecture, should be used in initial software and hardware planning.

Some of the questions that you should answer before beginning the installation include:

- On which hardware platform and operating system would Oracle Utilities Mobile Workforce Management be deployed?
- On which web server product would Oracle Utilities Mobile Workforce Management be deployed?
- On which database product would Oracle Utilities Mobile Workforce Management be deployed?
- Do you plan to deploy multiple Oracle Utilities Mobile Workforce Management instances on the same physical server?
- How do you plan to deploy Oracle Utilities Mobile Workforce Management?
    - Web/application/database on the same physical server
    - Web/application on one server and database on separate server
    - Each component on its own server

      Note: If you deploy the mobility application and web application on different servers, the log file path should be shared on the network.
- How do you plan to install and update the Oracle Utilities Mobile Workforce Management mobile client on the mobile computers or devices?
    - Use a device management software like Oracle Mobile Server for installation and updates.
- How do you plan to secure Oracle Utilities Mobile Workforce Management when communicating with devices over unsecured networks like the internet?

For detailed descriptions of various deployment architecture choices that may aid in planning, please see the document *Oracle Utilities Application Framework Architecture Guidelines,* available on My Oracle Support (Article ID 807068.1).

The final hardware and software decisions must comply with the specific requirements of Oracle Utilities Mobile Workforce Management, as described in the rest of this chapter.

Operating Systems and Application Servers

Supported Operating Systems and Application Servers

In addition, the following table details the operating system and application server combinations on which this version of Oracle Utilities Mobile Workforce Management is supported.

Operating System and Web Browser (Client)	Operating System (Server)	Chipset	Application Server	Database
Windows 7* (Internet Explorer 8.x, 9.x in Compatibility Mode)	AIX 7.1 TL00 (64-bit)	POWER 64-bit	WebLogic 10.3.5+	Oracle 11.2.0.1+ Oracle 12.1.0.1
	Oracle Linux 5.8, 6.2, 6.4 or 6.5 (64-bit) Red Hat Enterprise Linux 5.8, 6.2, 6.4 or 6.5 (64-bit)	x86_64	WebLogic 10.3.5+	Oracle 11.2.0.1+ Oracle 12.1.0.1
	Sun Solaris 10 Sun Solaris 11 (64-bit)	SPARC	WebLogic 10.3.5+	Oracle 11.2.0.1+ Oracle 12.1.0.1
	Windows Server 2008 R2 (64-bit)	x86_64	WebLogic 10.3.5+	Oracle 11.2.0.1+ Oracle 12.1.0.1

*Oracle support for Windows XP ended December 2013. Microsoft support for Windows XP ended April 2014.

** **Oracle Utilities Mobile Workforce Management** is supported on the versions of Oracle Linux specified. Because Oracle Linux is 100% userspace-compatible with Red Hat Enterprise Linux, **Oracle Utilities Mobile Workforce Management** also is supported on Red Hat Enterprise Linux for this release.

Note: Oracle Utilities Mobile Workforce Management 2.2.0.1 no longer requires the Oracle Spatial database option to operate properly. While this release supports Oracle Spatial, additional installation steps have been added which allow the application to run against a database without this option, including Oracle Standard Edition.

Hardware Requirements

Configuration	Processor	Memory (RAM)	Monitor Display
Minimum	Pentium IV - 2.0 GHz	1024 MB	1024X768** 16-bit Color
Recommended*	Pentium IV - 3.0+ GHz, Or any Core 2 Duo Or any Athlon X2	2048 MB	1280X1024* 32-bit Color

* The Recommended configuration will support better performance of the client.

** To reduce the amount of scrolling required for pages that are longer than 768 or 1024 pixels, consider placing a monitor into vertical position (with narrow side on the bottom).

Web Browser Requirements

The following operating system / web browser software is supported:

- Windows 7 (32-bit or 64-bit) with Internet Explorer 8.x, 9.x

  Note: Internet Explorer 8.x and 9.x must have Compatibility Mode enabled.

- Java plug-in 1.6.0 17

Mobile Client: Software and Hardware Requirements

The following operating systems are supported by the mobile client.

- Windows 7 (64-bit)
  The following is the recommended hardware configuration for Windows 7 (64-bit):

Configuration	Processor	Memory (RAM)
Recommended	Intel Core i5-2557M ULV processor	2048 MB

- Windows Embedded Handheld 6.5 Professional
  Please contact customer support for more information if you are using this hardware.
- Android 4.1, 4.2, 4.3
  The following is the minimum recommended hardware configuration for Android devices:

Configuration	Processor	Memory (RAM)
Minimum Recommended	Quad-core 1.6 GHz Cortex-A15 & quad-core 1.2 GHz Cortex-A7	2048 MB

Note: This release has been tested on the following:

- Motorola MC75A device running Windows Embedded Handheld 6.5 Professional
- Panasonic Tough Book running Windows 7 (32-bit)
- Samsung Galaxy S4 running on Android 4.3

Web/Business Application Server: Software and Hardware Requirements

Please consult the "Additional Notes on Supported Platforms" on page 5 to determine which web application servers can be used with the operating system that will be hosting this tier.

The recommendations that follow are based on a standard installation with both the application and business servers on the same machine and the system running with the default values. The minimum resource requirements exclude third-party software installation requirements. Refer to the third-party vendors for specific requirements. The following sizing excludes the Oracle database server installation.

Application Server Memory Requirements

For each application server environment a minimum of 4 GB of real memory is required, plus 6 GB of swap space.

Disk Space Requirements

The approximate disk space requirements in a standard installation are as follows:

Location	Size	Usage
$SPLEBASE	10 GB minimum	This location is where the application and Framework get installed. Startup, shutdown and other online log files are stored here. The size and space that is used should be monitored because various debugging options can significantly affect the size of log files.
$SPLAPP	4 GB minimum	This location is used for storing batch log files and output from batch jobs. The size of this space should be influenced by which batches are run and how often, and the amount of debugging information that is collected.
Location of the application web work files on the web servers	3 GB minimum	This location is used by the various web server vendors to expand the application. It should be considered when installing these products. Refer to the individual web server documentation to determine the location of the temporary files.
Installation temporary area	5 GB	The application gets installed from this location. You need enough space to uncompress the files and install the application.
Oracle data area	4 GB minimum	This location is where the Oracle database data files are stored. The size of this space should be based on the requirements of the production environment. For an initial or demo database install 4 GB should be sufficient.

Additional Notes on Supported Platforms

Oracle Database Servers

This version is supported with Oracle Database Server 11.2.0.1+ or 12.1.0.1 on all of the certified and supported operating systems listed above.

The Oracle 11.2.0.1+ or 12.1.0.1 client is required for this version of the database server.

The following Oracle Database Server Editions are supported:

- Oracle Database Server Standard Edition
- Oracle Database Server Enterprise Edition

Oracle VM Support

This version of Oracle Utilities Mobile Workforce Management is supported on Oracle VM Server for x86 for supported releases of Oracle Linux and Microsoft Windows operating systems.

Oracle Support Policy on VMWare - Refer to My Oracle Support knowledge base article 249212.1 for Oracle's support policy on VMWare

Application Dependencies for Oracle Business Intelligence for Utilities

When using Oracle Utilities Mobile Workforce Management v2.2.0.1 with Oracle Business Intelligence for Utilities, you must upgrade to Oracle Utilities Advanced Spatial and Operational Analytics v2.4.0 Service Pack 4. This release is not compatible with previous releases of Oracle Utilities Advanced Spatial and Operational Analytics. For more information, see the release notes and installation documentation for Oracle Utilities Advanced Spatial and Operational Analytics, v2.4.0 Service Pack 4 available on the Oracle Technology Network.

Please note that in release v2.5.0.0, the product name for "Oracle Utilities Advanced Spatial and Operational Analytics" is changed to "Oracle Utilities Analytics".

Supported on the Mobile Client

The following section describes the devices, operating systems and features that are available with the Oracle Utilities Mobile Workforce Management mobile client application.

The mobile application can be used in a disconnected or connected mode. In **disconnected** mode the mobile application and data reside locally on the mobile device allowing the crew to work offline as needed. This means the physical device has to be compatible with the mobile application requirements it runs locally.

In **connected** mode neither data nor the mobile application reside locally on the accessing mobile device. Instead the data and mobile application reside on the server and the user must be connected to the server at all times using their standard browser to access the mobile application.

Please refer to "About Connection Modes" in the user guide for more information.

The following entities are supported on mobile devices. Please note the distinction between attachments and captures:

- **Captures** are pictures or sound that are captured using native features on the device.
- **Attachments** are sent to the device with activities and require an application installed on the device to open them.
- **GPS** pinpoints the exact location information of the crew using GPS services.
- **Maps** allow tracking the actual or planned route of the crew on a map.

Disconnected Mode

The following table lists the features supported in the **Disconnected** MCP mode.

Feature	Device Platform (Device Type)		
	Windows (Laptop)	**Windows Embedded** (Hand-held or Phone)	**Android** (Tablet or Phone)
GPS	✓	✓	✓
Capture Picture and Sound	✓	✓	✓
Download Attachments from MDT	✓	✓	✓
Upload Attachment from MDT to Server	✓	X	X
Maps	✓	✓	✓

Connected Mode

The following table lists the features supported in the **Connected** MCP mode.

Feature	Device Platform (Device Type)			
	Windows (Laptop)	**Windows Embedded** (Hand-held or Phone)	**Android** (Tablet or Phone)	**iOS** (Tablet or Phone)
GPS	X	X	X	X
Capture Picture and Sound	X	X	X	X
Download Attachments from MDT	X	X	X	X
Upload Attachment from MDT to Server	X	X	X	X
Maps	✓	✓	✓	✓

The following are the browsers supported by the device platforms in **Connected** MCP mode.

Device Platform	Browser Platforms
Android	• Chrome Browser on Android 4.0+ • Chrome Browser v32+ on Android 4.2/4.3 • Default browser on Android 4.2/4.3
iOS	• iOS 7.0 • Safari on iPad
Windows	• Chrome version 32+ on Windows 7 • Firefox version ESR17+ on Windows 7 • Internet Explorer 8.x/9.x on Windows 7
Windows Embedded	• Internet Explorer Mobile 6 on Windows Embedded Handheld 6.5

Support for Software Patches and Upgrades

Due to the ongoing nature of software improvement, vendors will periodically issue patches and service packs for the operating systems, application servers and database servers on top of specific versions that Oracle products have already been tested against.

If it is necessary to apply an upgrade, please do so in a test environment that is running on the same platform as your production environment prior to updating the production environment itself.

The exception from this rule is Hibernate software version 4.1.0. This version should not be upgraded.

Always contact Oracle Support prior to applying vendor updates that do not guarantee backward compatibility.

Chapter 4

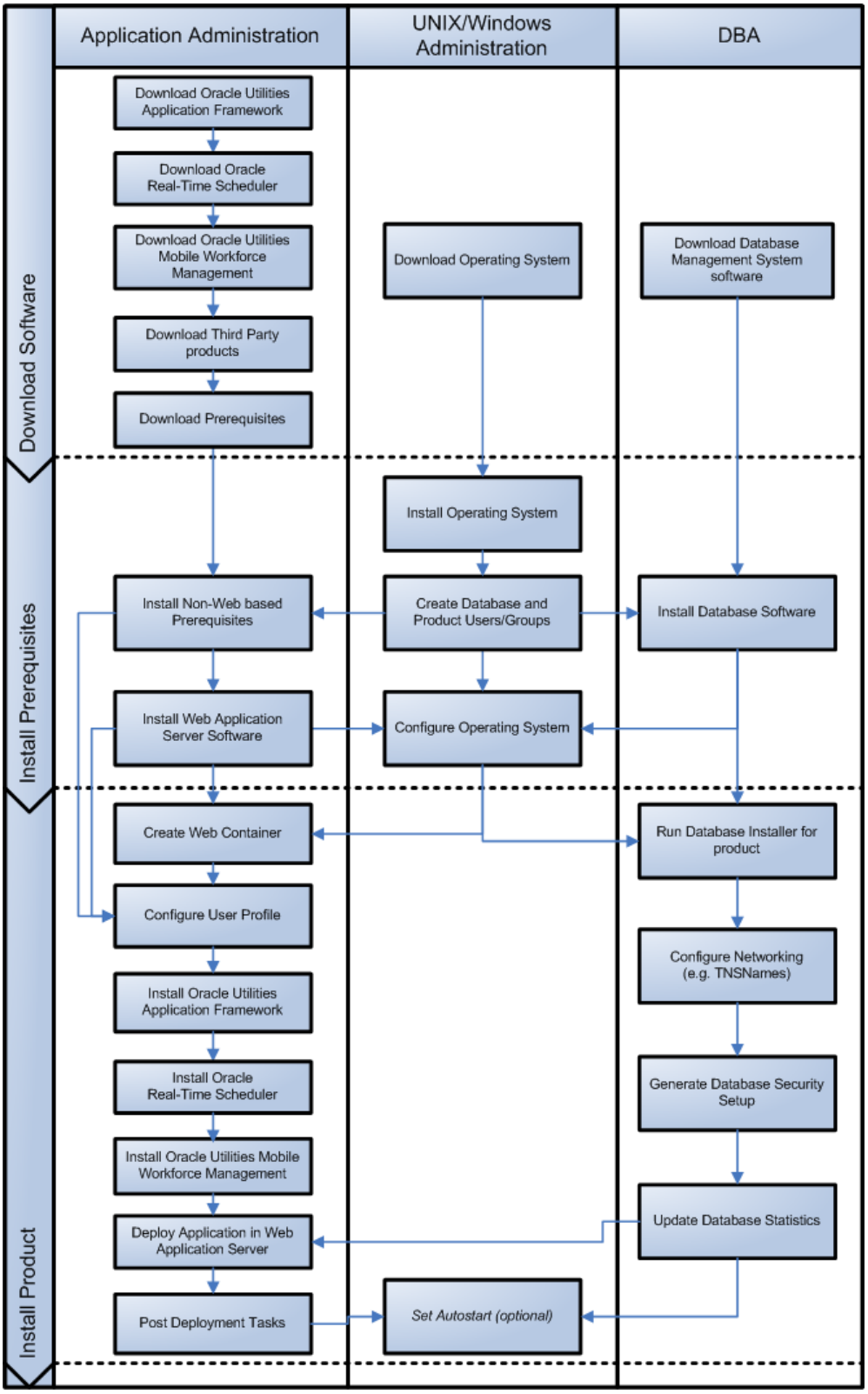
Planning the Installation

This chapter provides information for planning an Oracle Utilities Mobile Workforce Management installation, including:

- Installation and Configuration Overview
- Installing Prerequisite Third-Party Software
- Installation Readiness Checklist

Installation and Configuration Overview

The following diagram provides an overview of the steps that need to be taken to install and configure Oracle Utilities Mobile Workforce Management :



Installing Prerequisite Third-Party Software

This section describes the software that needs to be installed for each of the supported operating system and application server combinations. It contains the following sub-sections:

AIX 7.1 Operating System

This section describes the software requirements for operating the application using the AIX application server.

Supported Application Servers

Operating System	Chipsets	Application Server
AIX 7.1 (64-bit) TL00	POWER 64-bit	Oracle WebLogic 11gR1 (10.3.6+) 64-bit version

Web/Application Server Tier

AIX 7.1 TL00 Operating System Running on Power5 and Power6 Architecture

UNIX Administrator User ID

The following user groups and accounts have to be created to install and administer the application:

Description	Default Value	Customer Defined Values
Oracle Utilities Mobile Workforce Management Administrator User ID	cissys	
Oracle Utilities Mobile Workforce Management User Group	cisusr	

Note: It is recommended that you change the default values for security reasons.

Throughout this document the administrator user id is often referred to as the "cissys" user id. You should substitute that with the customer defined user id when not using the default value. After the initial install, the software should always be managed using that user id.

By default, the cissys userid is the only one given access to the installed files.

1. Create a group called cisusr (user group).

2. Create a user called cissys. Primary group cisusr. Set the primary shell for the cissys user to Korn Shell.

3. Set the stack size limit to 50 MB or more in the user profile startup script for cissys user:

   ```
   ulimit -s 51200
   ```

4. Set the desired hard/soft limit of the file handler to 4096 or higher.
   The shell scripts use the ">" to overwrite shell functionality. Your operating system may be configured to not allow this functionality by default in the users shell.

   To avoid file access permission problems when executing scripts, consider placing the following command into cissys profile script:

   ```
   set +o noclobber
   ```

Security Configuration

Various options exist to secure a system. In this application all files will be created with the minimum permissions required to ensure that group-readable, group-writable and group-executable files will have the correct user groups and to restrict the permissions available to legitimate users. In this way, a low privileged end user cannot directly edit configuration files and thereby bypass application security controls.

The following users and group categories must be defined to implement this security. For demonstration purposes the following users and groups will be used. These users must be created according to industry standards (including password policies). All users should be created with a default umask of 022 to ensure files created during normal operation have the correct permissions.

Please replace these users and groups for your installation defaults:

User	Group	Description
cissys	cisusr	This user will be used to install the application and to apply patches. This user will own all the application files. The same care should be taken with this user ID as if it is 'root'. This user will be able to add, delete and modify and files within the application.
cisadm	cisusr	Administrative and Operation functions will be available to this user. This user will be able to stop and start the application and batch processes, but will not have access to modify any file other than generated log files
cisoper	-------	Low level operator. This user will only be able to read logs files and collect information for debugging and investigative purposes. Care should be taken in production to disable debugging as debugging information could contain potential sensitive data which this user should not have privy to.

Note: The Oracle Client and WebLogic should be installed as the user who will stop and start the application. For example, if you plan to run the application as the install user these components must belong to cissys.

Oracle Client 11.2.0.3 — Runtime Option

Install the Oracle Client as described in the Oracle Client installation documentation. Use the cissys account to install the Oracle Client. If another user installs the Oracle Client, make sure the cissys user ID has the proper execute permissions.

For the cissys user ID, ensure that the environment variable ORACLE_CLIENT_HOME is set up, and that ORACLE_CLIENT_HOME/perl/bin is the first Perl listed in the cissys account's PATH variable.

IBM Java Software Development Kit version 6.0 SR15 64-bit

Installation of Java is a prerequisite for using Oracle WebLogic as a web application server.

At the time of release, AIX Java packages could be obtained from:

http://www.ibm.com/developerworks/java/jdk/aix/service.html

The web server requires the 64-bit Java platform in order to function. The main prerequisite for the web server is the version of java mentioned above.

For the Administrator userid (cissys), ensure that the environment variable JAVA_HOME is set up, and that "java" can be found in cissys' PATH variable.

Hibernate 4.1.0FINAL

You must install Hibernate before installing Oracle Utilities Mobile Workforce Management.

Follow the steps below to install Hibernate:

1. Create a Hibernate jar external depot:

   ```
   export HIBERNATE_JAR_DIR=<Hibernate 3rd party jars depot>
   ```
2. Download the hibernate-release-4.1.0.Final.zip file from http://sourceforge.net/projects/hibernate/files/hibernate4/
3. Click the "4.1.0.Final" link to download the zip file.
4. Extract the contents of the archive file:

   ```
   jar xvf hibernate-release-4.1.0.Final.zip
   ```

   Note: You must have Java JDK installed on the machine to use the jar command. Make sure you install the JDK supported for your platform.
5. Copy the jar files to your Hibernate jar directory ($HIBERNATE_JAR_DIR) using the following commands:
   cp hibernate-release-4.1.0.Final/lib/optional/ehcache/ehcache-core-2.4.3.jar $HIBERNATE_JAR_DIR

   ```
   cp hibernate-release-4.1.0.Final/lib/optional/ehcache/hibernate-ehcache-4.1.0.Final.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/hibernate-commons-annotations-4.0.1.Final.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/hibernate-core-4.1.0.Final.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/hibernate-jpa-2.0-api-1.0.1.Final.jar $HIBERNATE_JAR_DIR
   ```

```
   cp hibernate-release-4.1.0.Final/lib/required/javassist-3.15.0-
GA.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/jboss-logging-
3.1.0.CR2.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/jboss-transaction-
api_1.1_spec-1.0.0.Final.jar $HIBERNATE_JAR_DIR
```

Oracle WebLogic 11gR1 (10.3.6) 64-bit

Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.
- Download and install WebLogic Server 11gR1 (**10.3.6**)

Oracle Application Developer Framework (ADF) 11g (11.1.1.6.0)

Oracle ADF 11g (11.1.1.6.0) requires Oracle Weblogic Server 10.3.6 and it must be installed prior to installing ADF.

Oracle ADF can be downloaded from the following link:

http://www.oracle.com/technetwork/developer-tools/adf/downloads/index.html?

> **Note**: Please make sure you only use the version of Oracle ADF certified with Weblogic server.
>
> Note: Oracle recommends that you install Oracle Application Developer Framework (ADF) instead of Oracle JDeveloper.

Oracle JDeveloper 11g (11.1.1.6.0) Studio Edition

JDeveloper 11g (**11.1.1.6.0**) Studio Edition is supported on any platform that runs JDK 6. It requires Oracle Weblogic Server 10.3.6. It must be installed prior to installing the Oracle Utilities Application Framework.

Oracle JDeveloper can be downloaded from following link:

http://www.oracle.com/technology/software/products/jdev/index.html

Oracle MapViewer 11g (11.1.1.5.1)

Oracle Fusion Middleware MapViewer 11g Release 1 (11.1.1.5.1) is a tool that renders maps showing different kinds of spatial data. It can be downloaded from the following link:

http://www.oracle.com/technetwork/middleware/mapviewer/downloads/index.html

Oracle BPEL Process Manager 11gR1

Oracle BPEL Process Manager is optional software and is required only for SMS dispatching functionality. Oracle BPEL Process Manager 11gR1 is a component of Oracle SOA Suite 11gR1. The Oracle BPEL Process Manager version is determined by your SMS gateway application.

You can download SOA Suite 11gR1 from the SOA Suite download page at the following link:

http://www.oracle.com/technology/products/soa/soasuite/collateral/downloads.html#11g

GCC 4.2.4

GCC 4.2.4 libraries need to be installed for the scheduler functionality to work properly. The following GCC runtime libraries are required to be installed:

- libgcc : GCC compiler dynamic runtime library

- libstdc++ : G++ compiler dynamic runtime library

After installing the GCC runtime libraries, copy the following libraries to <INSTALL_DIR>/runtime directory:

- libstdc++.a
- libgcc_s.a

Alternately, you can add these libraries to LD_LIBRARY_PATH environment variable.

Oracle Linux 6.5 or Red Hat Linux 6.5 Operating System

This section describes the software requirements for operating the application using the Oracle Linux or Red Hat Linux application server.

Supported Application Servers

Operating System	Chipsets	Application Server
Oracle Linux6.5 (64-bit) Red Hat Enterprise Linux 6.5(64-bit)	x86_64	Oracle WebLogic 11gR1 (10.3.6) 64-bit version

Web/Application Server Tier

Oracle Linux 6.5 or Red Hat Enterprise Linux 6.5 Operating System Running on x86_64 64-bit Architecture

UNIX Administrator User ID

The following user groups and accounts have to be created to install and administer the application:

Description	Default Value	Customer Defined Values
Oracle Utilities Mobile Workforce Management Administrator User ID	cissys	
Oracle Utilities Mobile Workforce Management User Group	cisusr	

Note: It is recommended that you change the default values for security reasons.

Throughout this document the administrator user id is often referred to as the "cissys" user id. You should substitute that with the customer defined user id when not using the default value. After the initial install, the software should always be managed using that user id.

By default, the cissys userid is the only one given access to the files installed.

1. Create a group called cisusr (user group)
2. Create a user called cissys. Primary group cisusr. Set the primary shell for the cissys user to Korn Shell.
3. Set the stack size limit to 50 MB or more in the user profile startup script for cissys user:

   ```
   ulimit -s 51200
   ```

4. Set the desired hard/soft limit of the file handler to 4096 or higher.
   The shell scripts use the ">" to overwrite shell functionality. Your operating system may be configured to not allow this functionality by default in the users shell

   To avoid file access permission problems when executing scripts, consider placing the following command into cissys profile script:

   ```
   set +o noclobber
   ```

Security Configuration

Various options exist to secure a system. In this application all files will be created with the minimum permissions required to ensure that group-readable, group-writable and group-executable files will have the correct user groups and to restrict the permissions available to legitimate users. In this way, a low privileged end user cannot directly edit configuration files and thereby bypass application security controls.

The following users and group categories must be defined to implement this security. For demonstration purposes the following users and groups will be used. These users must be created according to industry standards (including password policies). All users should be created with a default umask of 022 to ensure files created during normal operation have the correct permissions.

Please replace these users and groups for your installation defaults:

User	Group	Description
cissys	cisusr	This user will be used to install the application and to apply patches. This user will own all the application files. The same care should be taken with this user ID as if it is 'root'. This user will be able to add, delete and modify and files within the application.
cisadm	cisusr	Administrative and Operation functions will be available to this user. This user will be able to stop and start the application and batch processes, but will not have access to modify any file other than generated log files
cisoper	-------	Low level operator. This user will only be able to read logs files and collect information for debugging and investigative purposes. Care should be taken in production to disable debugging as debugging information could contain potential sensitive data which this user should not have privy to.

Note: The Oracle Client and WebLogic should be installed as the user who will stop and start the application. For example, if you plan to run the application as the install user these components must belong to cissys.

Oracle Client 11.2.0.3 — Runtime Option

Install the Oracle Client as described in the Oracle Client installation documentation. Use the cissys account to install the Oracle Client. If another user installs the Oracle Client, make sure the cissys user ID has the proper execute permissions.

For the cissys user ID, ensure that the environment variable ORACLE_CLIENT_HOME is set up, and that ORACLE_CLIENT_HOME/perl/bin is the first Perl listed in the cissys account's PATH variable.

Oracle Java Development Kit Version 6.0 Update 65 or Later, 64-bit

At the time of release, the latest patch of the Oracle Java 6.0 package can be obtained from:

https://support.oracle.com

The Oracle WebLogic Server requires the 64-bit version. The main prerequisite for the web server is the version of Java mentioned above.

For the userid cissys, ensure that the environment variable JAVA_HOME is setup, and that java_home/bin and java_home/lib can be found in cissys' PATH variable.

Hibernate 4.1.0FINAL

You must install Hibernate before installing Oracle Utilities Mobile Workforce Management.

Follow the steps below to install Hibernate:

1. Create a Hibernate jar external depot:

   ```
   export HIBERNATE_JAR_DIR=<Hibernate 3rd party jars depot>
   ```
2. Download the hibernate-release-4.1.0.Final.zip file from http://sourceforge.net/projects/hibernate/files/hibernate4/
3. Click the "4.1.0.Final" link to download the zip file.
4. Extract the contents of the archive file:

   ```
   jar xvf hibernate-release-4.1.0.Final.zip
   ```

   Note: You must have Java JDK installed on the machine to use the jar command. Make sure you install the JDK supported for your platform.
5. Copy the jar files to your Hibernate jar directory ($HIBERNATE_JAR_DIR) using the following commands:
   cp hibernate-release-4.1.0.Final/lib/optional/ehcache/ehcache-core-2.4.3.jar $HIBERNATE_JAR_DIR

   ```
   cp hibernate-release-4.1.0.Final/lib/optional/ehcache/hibernate-ehcache-4.1.0.Final.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/hibernate-commons-annotations-4.0.1.Final.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/hibernate-core-4.1.0.Final.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/hibernate-jpa-2.0-api-1.0.1.Final.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/javassist-3.15.0-GA.jar $HIBERNATE_JAR_DIR
   ```

```
   cp hibernate-release-4.1.0.Final/lib/required/jboss-logging-
3.1.0.CR2.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/jboss-transaction-
api_1.1_spec-1.0.0.Final.jar $HIBERNATE_JAR_DIR
```

Oracle WebLogic 11gR1 (10.3.6) 64-bit

Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.
- Download and install WebLogic Server 11gR1 (**10.3.6**)

Oracle Application Developer Framework (ADF) 11g (11.1.1.6.0)

Oracle ADF 11g (11.1.1.6.0) requires Oracle Weblogic Server 10.3.6 and it must be installed prior to installing ADF.

Oracle ADF can be downloaded from the following link:

http://www.oracle.com/technetwork/developer-tools/adf/downloads/index.html?

> **Note**: Please make sure you only use the version of Oracle ADF certified with Weblogic server.
>
> Note: Oracle recommends that you install Oracle Application Developer Framework (ADF) instead of Oracle JDeveloper.

Oracle JDeveloper 11g (11.1.1.6.0) Studio Edition

JDeveloper 11g (**11.1.1.6.0**) Studio Edition is supported on any platform that runs JDK 6. It requires Oracle Weblogic Server 10.3.6. It must be installed prior to installing the Oracle Utilities Application Framework.

Oracle JDeveloper can be downloaded from following link:

http://www.oracle.com/technology/software/products/jdev/index.html

Oracle MapViewer 11g (11.1.1.5.1)

Oracle Fusion Middleware MapViewer 11g Release 1 (11.1.1.5.1) is a tool that renders maps showing different kinds of spatial data. It can be downloaded from the following link:

http://www.oracle.com/technetwork/middleware/mapviewer/downloads/index.html

Oracle BPEL Process Manager 11gR1

Oracle BPEL Process Manager is optional software and is required only for SMS dispatching functionality. Oracle BPEL Process Manager 11gR1 is a component of Oracle SOA Suite 11gR1. The Oracle BPEL Process Manager version is determined by your SMS gateway application.

You can download SOA Suite 11gR1 from the SOA Suite download page at the following link:

http://www.oracle.com/technology/products/soa/soasuite/collateral/downloads.html#11g

Solaris 10/11 Operating System

This section describes the software requirements for operating the application using the Sun Solaris 11application server.

Supported Application Servers

Operating System	Chipsets	Application Server
Solaris 10/11(64-bit)	SPARC	Oracle WebLogic 11gR1 (10.3.6) 64-bit version

Web/Application Server Tier

Solaris 10/11 Operating System Running on SPARC-based 64-bit Architecture

UNIX Administrator User ID

The following user groups and accounts have to be created to install and administer the application:

Description	Default Value	Customer Defined Values
Oracle Utilities Mobile Workforce Management Administrator User ID	cissys	
Oracle Utilities Mobile Workforce Management User Group	cisusr	

Note: It is recommended that you change the default values for security reasons.

Throughout this document the administrator user id is often referred to as the "cissys" user id. You should substitute that with the customer defined user id when not using the default value. After the initial install, the software should always be managed using that user id.

By default, the cissys userid is the only one given access to the files installed.

1. Create a group called cisusr (user group)
2. Create a user called cissys. Primary group cisusr. Set the primary shell for the cissys user to Korn Shell.
3. Set the stack size limit to 50 MB or more in the user profile startup script for cissys user:

   ```
   ulimit -s 51200
   ```

4. Set the desired hard/soft limit of the file handler to 4096 or higher.

   The shell scripts use the ">" to overwrite shell functionality. Your operating system may be configured to not allow this functionality by default in the users shell.

   To avoid file access permission problems when executing scripts, consider placing the following command into cissys profile script:

   ```
   set +o noclobber
   ```

Security Configuration

Various options exist to secure a system. In this application all files will be created with the minimum permissions required to ensure that group-readable, group-writable and group-

executable files will have the correct user groups and to restrict the permissions available to legitimate users. In this way, a low privileged end user cannot directly edit configuration files and thereby bypass application security controls.

The following users and group categories must be defined to implement this security. For demonstration purposes the following users and groups will be used. These users must be created according to industry standards (including password policies). All users should be created with a default umask of 022 to ensure files created during normal operation have the correct permissions.

Please replace these users and groups for your installation defaults:

User	Group	Description
cissys	cisusr	This user will be used to install the application and to apply patches. This user will own all the application files. The same care should be taken with this user ID as if it is 'root'. This user will be able to add, delete and modify and files within the application.
cisadm	cisusr	Administrative and Operation functions will be available to this user. This user will be able to stop and start the application and batch processes, but will not have access to modify any file other than generated log files
cisoper	-------	Low level operator. This user will only be able to read logs files and collect information for debugging and investigative purposes. Care should be taken in production to disable debugging as debugging information could contain potential sensitive data which this user should not have privy to.

Note: The Oracle Client and WebLogic should be installed as the user who will stop and start the application. For example, if you plan to run the application as the install user these components must belong to cissys.

Oracle Client 11.2.0.3 — Runtime Option

Install the Oracle Client as described in the Oracle Client installation documentation. Use the cissys account to install the Oracle Client. If another user installs the Oracle Client, make sure the cissys user ID has the proper execute permissions.

For the cissys user ID, ensure that the environment variable ORACLE_CLIENT_HOME is set up, and that ORACLE_CLIENT_HOME/perl/bin is the first Perl listed in the cissys account's PATH variable.

Oracle Java Development Kit Version 6.0 Update 65 or Later, 64-bit

This software is only required for Oracle WebLogic installations.

At the time of release, the latest patch of the Oracle Java 6.0 package can be obtained from:

https://support.oracle.com

The Oracle WebLogic Server requires the 64-bit version. The main prerequisite for the web server is the version of Java mentioned above.

For the userid cissys, ensure that the environment variable JAVA_HOME is setup, and that java_home/bin and java_home/lib can be found in cissys' PATH variable.

Hibernate 4.1.0FINAL

You must install Hibernate before installing Oracle Utilities Mobile Workforce Management.

Follow the steps below to install Hibernate:

1. Create a Hibernate jar external depot:

   ```
   export HIBERNATE_JAR_DIR=<Hibernate 3rd party jars depot>
   ```

2. Download the hibernate-release-4.1.0.Final.zip file from http://sourceforge.net/projects/hibernate/files/hibernate4/
3. Click the "4.1.0.Final" link to download the zip file.
4. Extract the contents of the archive file:

   ```
   jar xvf hibernate-release-4.1.0.Final.zip
   ```

   Note: You must have Java JDK installed on the machine to use the jar command. Make sure you install the JDK supported for your platform.

5. Copy the jar files to your Hibernate jar directory ($HIBERNATE_JAR_DIR) using the following commands:
   cp hibernate-release-4.1.0.Final/lib/optional/ehcache/ehcache-core-2.4.3.jar $HIBERNATE_JAR_DIR

   ```
   cp hibernate-release-4.1.0.Final/lib/optional/ehcache/hibernate-ehcache-4.1.0.Final.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/hibernate-commons-annotations-4.0.1.Final.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/hibernate-core-4.1.0.Final.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/hibernate-jpa-2.0-api-1.0.1.Final.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/javassist-3.15.0-GA.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/jboss-logging-3.1.0.CR2.jar $HIBERNATE_JAR_DIR

   cp hibernate-release-4.1.0.Final/lib/required/jboss-transaction-api_1.1_spec-1.0.0.Final.jar $HIBERNATE_JAR_DIR
   ```

Oracle WebLogic 11gR1 (10.3.6) 64-bit

Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.
- Download and install WebLogic Server 11gR1 (**10.3.6**)

Oracle Application Developer Framework (ADF) 11g (11.1.1.6.0)

Oracle ADF 11g (11.1.1.6.0) requires Oracle Weblogic Server 10.3.6 and it must be installed prior to installing ADF.

Oracle ADF can be downloaded from the following link:

http://www.oracle.com/technetwork/developer-tools/adf/downloads/index.html?

Note: Please make sure you only use the version of Oracle ADF certified with Weblogic server.

Note: Oracle recommends that you install Oracle Application Developer Framework (ADF) instead of Oracle JDeveloper.

Oracle JDeveloper 11g (11.1.1.6.0) Studio Edition

JDeveloper 11g (**11.1.1.6.0**) Studio Edition is supported on any platform that runs JDK 6. It requires Oracle Weblogic Server 10.3.6. It must be installed prior to installing the Oracle Utilities Application Framework.

Oracle JDeveloper can be downloaded from following link:

http://www.oracle.com/technology/software/products/jdev/index.html

Oracle MapViewer 11g (11.1.1.5.1)

Oracle Fusion Middleware MapViewer 11g Release 1 (11.1.1.5.1) is a tool that renders maps showing different kinds of spatial data. It can be downloaded from the following link:

http://www.oracle.com/technetwork/middleware/mapviewer/downloads/index.html

Oracle BPEL Process Manager 11gR1

Oracle BPEL Process Manager is optional software and is required only for SMS dispatching functionality. Oracle BPEL Process Manager 11gR1 is a component of Oracle SOA Suite 11gR1. The Oracle BPEL Process Manager version is determined by your SMS gateway application.

You can download SOA Suite 11gR1 from the SOA Suite download page at the following link:

http://www.oracle.com/technology/products/soa/soasuite/collateral/downloads.html#11g

Windows 2008 Operating System

This section describes the software requirements for operating the application using the Windows application server.

Supported Application Servers

Operating System	Chipsets	Application Server
Windows Server 2008 R2 (64-bit)	x86_64	Oracle WebLogic 11gR1 (10.3.6) 64-bit version

Web/Application Server Tier

Oracle Client 11.2.0.3 — Runtime Option

Install the Oracle Client as described in the Oracle Client installation documentation. Use the cissys account to install the Oracle Client. If another user installs the Oracle Client, make sure the cissys user ID has the proper execute permissions.

For the cissys user ID, ensure that the environment variable ORACLE_CLIENT_HOME is set up, and that ORACLE_CLIENT_HOME/perl/bin is the first Perl listed in the cissys account's PATH variable.

Oracle Java Development Kit Version 6.0 Update 65 or Later, 64-bit

This software is only required for Oracle WebLogic installations.

At the time of release, the latest patch of the Oracle Java 6.0 package can be obtained from:

https://support.oracle.com

The Oracle WebLogic Server requires the 64-bit version. The main prerequisite for the web server is the version of Java mentioned above.

For the userid cissys, ensure that the environment variable JAVA_HOME is setup, and that java_home/bin and java_home/lib can be found in cissys' PATH variable.

Hibernate 4.1.0FINAL

You must install Hibernate before installing <Product Name>.

Follow the steps below to install Hibernate:

1. Create a Hibernate jar external depot:

   ```
   set HIBERNATE_JAR_DIR=<Hibernate 3rd party jars depot>
   ```

2. Download the hibernate-release-4.1.0.Final.zip file from http://sourceforge.net/projects/hibernate/files/hibernate4/
3. Click the "4.1.0.Final" link to download the zip file.
4. Extract the contents of the archive file:

   ```
   jar xvf hibernate-release-4.1.0.Final.zip
   ```

   Note: You must have Java JDK installed on the machine to use the jar command. Make sure you install the JDK supported for your platform.

5. Copy the jar files to your Hibernate jar directory (%HIBERNATE_JAR_DIR%) using the following commands:

```
   copy hibernate-release-4.1.0.Final/lib/optional/ehcache/ehcache-
core-2.4.3.jar %HIBERNATE_JAR_DIR%

   copy hibernate-release-4.1.0.Final/lib/optional/ehcache/hibernate-
ehcache-4.1.0.Final.jar %HIBERNATE_JAR_DIR%

   copy hibernate-release-4.1.0.Final/lib/required/hibernate-commons-
annotations-4.0.1.Final.jar %HIBERNATE_JAR_DIR%

   copy hibernate-release-4.1.0.Final/lib/required/hibernate-core-
4.1.0.Final.jar %HIBERNATE_JAR_DIR%

   copy hibernate-release-4.1.0.Final/lib/required/hibernate-jpa-2.0-
api-1.0.1.Final.jar %HIBERNATE_JAR_DIR%

   copy hibernate-release-4.1.0.Final/lib/required/javassist-3.15.0-
GA.jar %HIBERNATE_JAR_DIR%

   copy hibernate-release-4.1.0.Final/lib/required/jboss-logging-
3.1.0.CR2.jar %HIBERNATE_JAR_DIR%

   copy hibernate-release-4.1.0.Final/lib/required/jboss-transaction-
api_1.1_spec-1.0.0.Final.jar %HIBERNATE_JAR_DIR%
```

Oracle WebLogic 11gR1 (10.3.6) 64-bit

Oracle WebLogic software can be downloaded from the Oracle web site. This application server will run as a 64-bit application.

- Download and install 64-bit Java (as documented above) before installing WebLogic.
- Download and install WebLogic Server 11gR1 (**10.3.6**)

Oracle Application Developer Framework (ADF) 11g (11.1.1.6.0)

Oracle ADF 11g (11.1.1.6.0) requires Oracle Weblogic Server 10.3.6 and it must be installed prior to installing ADF.

Oracle ADF can be downloaded from the following link:

http://www.oracle.com/technetwork/developer-tools/adf/downloads/index.html?

> **Note**: Please make sure you only use the version of Oracle ADF certified with Weblogic server.
>
> Note: Oracle recommends that you install Oracle Application Developer Framework (ADF) instead of Oracle JDeveloper.

Oracle JDeveloper 11g (11.1.1.6.0) Studio Edition

JDeveloper 11g (**11.1.1.6.0**) Studio Edition is supported on any platform that runs JDK 6. It requires Oracle Weblogic Server 10.3.6. It must be installed prior to installing the Oracle Utilities Application Framework.

Oracle JDeveloper can be downloaded from following link:

http://www.oracle.com/technology/software/products/jdev/index.html

Oracle MapViewer 11g (11.1.1.5.1)

Oracle Fusion Middleware MapViewer 11g Release 1 (11.1.1.5.1) is a tool that renders maps showing different kinds of spatial data. It can be downloaded from the following link:

http://www.oracle.com/technetwork/middleware/mapviewer/downloads/index.html

Oracle BPEL Process Manager 11gR1

Oracle BPEL Process Manager is optional software and is required only for SMS dispatching functionality. Oracle BPEL Process Manager 11gR1 is a component of Oracle SOA Suite 11gR1. The Oracle BPEL Process Manager version is determined by your SMS gateway application.

You can download SOA Suite 11gR1 from the SOA Suite download page at the following link:

http://www.oracle.com/technology/products/soa/soasuite/collateral/downloads.html#11g

Installation Readiness Checklist

The following checklist will help guide you through the installation process of the application tier. The details for each step are presented in subsequent chapters.

Note: Please make sure that you follow the order listed below.

1. Create Group/User ID.
2. Install prerequisite software (see "Installing Prerequisite Third-Party Software" on page 3 for more information).
   - Oracle Client 11.2.0.3 (for connecting to Oracle database)
   - Java 1.6.0.65 or later
   - Hibernate 4.1.0FINAL
   - Geocoding and Map related data - Currently, Oracle Utilities Mobile Workforce Management only supports Navteq as the provider of maps and location data. For instructions on installing geocoding and map related data, please contact your specific Navteq vendor. The disk space required for installation is around 60 GB.
   - Oracle BPEL Process Manager 11g (optional)
3. Install application server.
   - Oracle WebLogic 11gR1 (10.3.6)
4. Install Oracle Application Development Framework (ADF) 11g (11.1.1.6.0) or Oracle JDeveloper 11g (11.1.1.5.0+). Ensure the version of Oracle ADF is compatible with the version of Weblogic installed.

   Note: You can choose to install either Oracle Application Developer Framework (ADF) or Oracle JDeveloper. However, Oracle recommends that you install ADF instead of Oracle JDeveloper.
5. Verify that all software is installed.
6. Set up environment variables.
7. Install Oracle Utilities Application Framework.
8. Install Oracle Real-Time Scheduler.
9. Install MapViewer 11.1.1.5.1.
10. Install Oracle Utilities Mobile Workforce Management.
11. Deploy the Oracle Utilities Mobile Workforce Management application.
12. Perform Post installation tasks.

Chapter 5

Installing Oracle Utilities Mobile Workforce Management - Initial Installation

This chapter provides instructions for installing Oracle Utilities Mobile Workforce Management from scratch.

Note: The software components that are required for an initial installation are available for download from the Oracle Software Delivery Cloud.

This chapter includes information on the following:

Before You Install

Refer to My Oracle Support for up-to-date additional information on Oracle Utilities Mobile Workforce Management.

Initial Installation Procedure

The initial installation procedure consists of:

- Database Component Installation
- Application Components Installation

Database Component Installation

Installation of the database component of Oracle Utilities Mobile Workforce Management must be complete before you can proceed with the following sections. Refer to the section "**Initial Install**" of the Oracle Utilities Mobile Workforce Management *Database Administrator's Guide*, which provides instructions on installing the database component.

Application Components Installation

A successful installation consists of the following steps:

- Installing Oracle Utilities Application Framework v4.2.0.0 Service Pack 2
- Installing Oracle Utilities Application Framework v4.2.0.2 Single Fix PreRequisite Rollup for ORS v2.2.0.1
- Installing the Oracle Real-Time Scheduler v2.2.0.1
- Installing the Oracle Utilities Mobile Workforce Management Application Component v2.2.0.1

Installing Oracle Utilities Application Framework v4.2.0.0 Service Pack 2

This section describes how to install the application framework component, including:

- Copying and Decompressing Install Media
- Setting Permissions for the cistab file in UNIX
- Preparing for the Installation

Copying and Decompressing Install Media

The installation file is delivered in jar format for both UNIX and Windows platforms. Download the installation package and proceed as follows:

1. Log in to the host server as the Oracle Utilities Application Framework administrator user ID. This is the same user ID that was used to install the Oracle Utilities Application Framework.
2. Create a <TEMPDIR> directory on the host server, which is independent of any current or other working Oracle Utilities Framework application environment. This can be the same <TEMPDIR> used during the installation of the Oracle Utilities Application Framework.

   Note: This directory must be located outside any current or other working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation may be deleted after a successful installation.
3. Copy the file FW-V4.2.0.2.0-MultiPlatform.jar in the delivered package to a <TEMPDIR> on your host server. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
4. Decompress the file:

```
cd <TEMPDIR>
jar -xvf FW-V4.2.0.2.0-MultiPlatform.jar
```

For Windows installations, include the location of the JDK in your path before you execute the jar command.

For both Unix and Windows platforms, a sub-directory named FW.V4.2.0.2.0 is created. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application.

Setting Permissions for the cistab file in UNIX

Every Oracle Utilities Application Framework environment installed on a server must be registered in the /etc/cistab file located on that server. On UNIX servers, generally only the root user ID has write permissions to the /etc directory. Since the installation process is run by the Oracle administrator user ID (cissys), this user ID may not be able to write to /etc/cistab table.

The install utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the <TEMPDIR>/FW.V4.2.0.2.0 directory named cistab_<SPLENVIRON>.sh. Run the generated script using the root account before continuing with the installation process. The script initializes the cistab file in /etc directory (if it is the first Oracle Utilities Framework application environment on the server) and registers a new environment.

The generated script also changes the owner of /etc/cistab file to the Oracle Utilities Framework administrator user ID, so that the next time a new environment is created by the same Oracle Utilities Framework administrator user ID, you do not need to run the generated script with the root user ID. Instead the install utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of /etc/cistab entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case.

If you are planning to upgrade an existing environment it is your responsibility to take a backup prior to the installation process. The installation utility does not create a backup of existing environment.

Preparing for the Installation

1. Log on as the administrator (default cissys).
2. Change directory to the <TEMPDIR>/FW.V4.2.0.2.0 directory.
3. Set the ORACLE_CLIENT_HOME and PATH variables as Oracle Client Perl is required to run the installer.

   UNIX:

   ```
   export ORACLE_CLIENT_HOME=<ORACLE CLIENT INSTALL LOCATION>
   export PERL_HOME=${ORACLE_CLIENT_HOME}/perl
   export PATH=${PERL_HOME}/bin:$PATH
   export PERL5LIB=${PERL_HOME}/lib:${PERL_HOME}/lib/site_perl:<OUAF
                     Installer Decompressed location/data/bin/perlib>
   export PERLLIB=${PERL_HOME}/lib:${PERL_HOME}/lib/site_perl:<OUAF
                     Installer Decompressed location/data/bin/perlib>
   export LD_LIBRARY_PATH=${ORACLE_CLIENT_HOME}/lib:$LD_LIBRARY_PATH
   ```

   Windows:

   ```
   set ORACLE_CLIENT_HOME=<ORACLE CLIENT INSTALL LOCATION>
   set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
   set PATH=%PERL_HOME%\bin;%PATH%
   ```

4. Start the application installation utility by executing the appropriate script:

   UNIX:

```
ksh ./install.sh
```

Windows:

```
install.cmd
```

5. The Oracle Utilities Application Framework specific menu appears.
6. Follow the messages and instructions that are produced by the application installation utility.
7. Select each menu item to configure the values. For detailed description of the values, refer to Appendix Installation and Configuration Worksheets.
8. Below are the mandatory list of configurable items along with descriptions for a few items. Where you see <Mandatory>, enter values suitable to your environment. You can assign default values to the rest of the menu items.

```
**********************************
* Environment Installation Options *
**********************************
1. Third Party Software Configuration
     Oracle Client Home Directory: <Mandatory>
     Web Java Home Directory:      <Mandatory>
     Child JVM Home Directory:
     COBOL Home Directory:
     Hibernate JAR Directory: <Mandatory>
     ONS JAR Directory:
     Web Application Server Home Directory: <Mandatory>
     ADF Home Directory:
     OIM OAM Enabled Environment:

50. Environment Installation Options
     Environment Mount Point: <Mandatory> - Install Location
     Log Files Mount Point:<Mandatory> - ThreadPoolWorker Logs
                                  Location
     Environment Name:<Mandatory>
     Web Application Server Type:                        WLS
     Install Application Viewer Module:                  true

Each item in the above list should be configured for a
 successful install.
Choose option (1,50, <P> Process, <X> Exit):
```

9. Once you enter 'P' after entering mandatory input values in the above menu, the system populates another configuration menu.

```
************************************************************
* Environment Configuration *
************************************************************
 1. Environment Description
     Environment Description:    <Mandatory>

 2. Business Application Server Configuration
     Business Server Host:       <Mandatory> - Hostname on which
                              application being installed
     WebLogic Server Name:       myserver
     Business Server Application Name: SPLService
     MPL Admin Port Number:      <Mandatory> - Multipurpose
                                          Listener Port
     MPL Automatic startup:      false

 3. Web Application Server Configuration
     Web Server Host:            <Mandatory>
```

```
     Web Server Port Number:      <Mandatory>
     Web Context Root:            ouaf
     WebLogic JNDI User ID:       <Mandatory>
     WebLogic JNDI Password:     <Mandatory>
     WebLogic Admin System User ID:    <Mandatory>
     WebLogic Admin System Password:   <Mandatory>
     WebLogic Server Name:             myserver
     Web Server Application Name:      SPLWeb
     Application Admin User ID:        <Mandatory>
     Application Admin Password:       <Mandatory>
     Expanded Directories:             false
     Application Viewer Module:        true

  4. Database Configuration
      Application Server Database User ID:   <Mandatory>
      Application Server Database Password:    <Mandatory>
      MPL Database User ID:                    <Mandatory>
      MPL Database Password:                   <Mandatory>
      XAI Database User ID:                    <Mandatory>
      XAI Database Password:                   <Mandatory>
      Batch Database User ID:                  <Mandatory>
      Batch Database Password:                 <Mandatory>
      Database Name:                           <Mandatory>
      Database Server:                         <Mandatory>
      Database Port:                           <Mandatory>
      ONS Server Configuration:
      Database Override Connection String:
      Oracle Client Character Set NLS_LANG:

  5. General Configuration Options
       Batch RMI Port:                          <Mandatory> - RMI
                                                    port for batch
       Batch Mode:                             <Mandatory> -
                                              CLUSTERED or DISTRIBUTED
       Coherence Cluster Name:                 <Mandatory> - Unique
                                                   name for batch
       Coherence Cluster Address:              <Mandatory> - Unique
                                                 multicast address
      Coherence Cluster Port:                  <Mandatory> - Unique
                                              port for batch cluster
     Coherence Cluster Mode:                     <Mandatory> - prod

   Each item in the above list should be configured for a
  successful install.

 Choose option (1,2,3,4,5, <P> Process, <X> Exit):
```

10. When you are done with the parameter setup, proceed with the option P. The utility writes the configured parameters and their values into the configuration file.
11. Once the install has finished, the installation log location appears on the screen. If the log does not list any error messages, the installation of the application component of Oracle Utilities Application Framework is complete.

Installing Oracle Utilities Application Framework v4.2.0.2 Single Fix PreRequisite Rollup for ORS v2.2.0.1

1. Create a <TEMPDIR> directory on the host server that is independent of any current or other working application environment.
2. Copy the file 'ORS-v2.2.0.1.0-FW-PREREQ-Multiplatform.zip' in the delivered package to <TEMPDIR>.

If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.

3. Upon extracting the zip file 'Application-Server-Multiplatform' sub-directory will be created.
4. Refer to the Readme.txt inside 'Application-Server-Multiplatform' to install Application related FW patch.

Installing the Oracle Real-Time Scheduler v2.2.0.1

This section describes how to install the application component of Oracle Real-Time Scheduler, including:

1. Create a <TEMPDIR> directory on the host server that is independent of any current or other working Oracle Real-Time Scheduler application environment.
2. Unzip 'Oracle Real-Time Scheduler v2.2.0.1.0 Multiplatform.zip' and copy the file ORS-V2.2.0.1.0-MultiPlatform.jar in the delivered package to <TEMPDIR>.

   If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
3. Decompress the file using following command:

   ```
   cd <TEMPDIR>
   jar -xvf ORS-V2.2.0.1.0-MultiPlatform.jar
   ```

   Note: For Windows installations, include the location of the JDK in your path before executing the jar command.

   For both Unix and Windows platforms, a sub-directory named ORS.V2.2.0.1.0 is created.
4. Initialize the Oracle Real-Time Scheduler environment that you want to install the product into.

   UNIX:

   ```
   <SPLEBASE>/bin/splenviron.sh -e <SPLENVIRON>
   ```

   Windows:

   ```
   <SPLEBASE>\bin\splenviron.cmd -e <SPLENVIRON>
   ```
5. Stop the application server instance if running.
6. Change to the <TEMPDIR>/ORS.V2.2.0.1.0 directory.
7. Execute the following command:

   Note: On UNIX, ensure that you have the proper execute permission on install.sh

   UNIX:

   ```
   ksh ./install.sh
   ```

   Windows:

   ```
   install.cmd
   ```

   The Oracle Utilities Mobile Workforce Management Application specific menu opens.
8. Select the following menu items and enter mandatory fields.
   Refer to the Oracle Real-Time Scheduler Installation and Configuration Worksheets for more information.

   ```
   8. JMS Configuration
          Context Factory: <Mandatory> Weblogic
          WebLogic Server URL:     <Mandatory> Weblogic
          Weblogic System User ID:    <Mandatory> Weblogic
          Weblogic System Password: <Mandatory>
          Time Out:     <Mandatory>
   ```

```
9. ORS Environment Description
       ORS Scheduler Map Files Location:   <Mandatory>
       Schedule Manager Port Number: <Mandatory>
       Minimum Requests:    <Mandatory>
       Maximum Time (seconds) Booking Requests:   <Mandatory>
       Unique identifier for the instance of the JVM:
                                                  <Mandatory>
       Registry cleanse timing in seconds:    <Mandatory>
       Scheduler connection timeout in milliseconds:
                                                  <Mandatory>
       Scheduler maintenance cycle time in seconds: <Mandatory>

10. Geocode Data Source Configuration
       JDBC URL for the Geocode database:      <Mandatory>
       Database User Name: <Mandatory>
       Database Password:   <Mandatory>
       JNDI name for the Geocode datasource: <Mandatory>

11. Mapviewer Configuration
       Deploy mapviewer locally on this instance:  <Mandatory>
       Location of mapviewer ear file:   <Mandatory>

12. Security Configuration
       Deploy only mobility web application:   <Mandatory>
        Allow Self Signed SSL Certificates: <Mandatory>
```

9. Choose the options for configuration and enter P to proceed with the installation.
10. Execute the following command:

    UNIX:

    ```
    cd <SPLEBASE>/runtime
    ksh ./ORS_postinstall.sh
    ```

    Windows:

    cd %SPLEBASE%\runtime

    ORS_postinstall.cmd

    Note: On UNIX, ensure that you have the proper execute permission on ORS_postinstall.sh

Installing the Oracle Utilities Mobile Workforce Management Application Component v2.2.0.1

This section describes how to install the application component of Oracle Utilities Mobile Workforce Management, including:

- **Copying and Decompressing Install Media**
- **Installing the Application Component**
- **Performing Post-Installation Tasks**

Copying and Decompressing Install Media

The Oracle Utilities Mobile Workforce Management installation file is delivered in jar format for both UNIX and Windows platforms.

To copy and decompress the install media, follow these steps:

1. Log in to the application server host as the administrator user ID (default cissys). This is the same user ID that was used to install the Oracle Utilities Application Framework.
2. Download the Oracle Utilities Mobile Workforce Management v2.2.0.1 Multiplatform from Oracle Software Delivery Cloud.

3. Create a <TEMPDIR> directory on the host server, which is independent of any current or other working Oracle Utilities Mobile Workforce Management application environment. This can be the same <TEMPDIR> used during the installation of the Oracle Utilities Application Framework.
4. Copy the file MWM-V2.2.0.1.0-MultiPlatform.jar in the delivered package to a <TEMPDIR> on your host server. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
5. Decompress the file:

   ```
   cd <TEMPDIR>
   jar -xvf MWM-V2.2.0.1.0-MultiPlatform.jar
   ```

   For Windows installations, include the location of the JDK in your path before you execute the jar command.

For both Unix and Windows platforms, a sub-directory named `MWM.V2.2.0.1.0` is created. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application product.

Installing the Application Component

Follow the steps below to install Oracle Utilities Mobile Workforce Management application component:

1. Log in to the application server host as the administrator user ID (default cissys).
2. Change directory:

   ```
   cd <install_dir>/bin
   ```

   where <install_dir> is the location where the Oracle Utilities Mobile Workforce Management application component is installed.
3. Initialize the environment by running the appropriate command:

   UNIX:

   ```
   ./splenviron.sh -e <ENV NAME>
   ```

   Windows:

   ```
   splenviron.cmd -e <ENV NAME>
   ```

4. If the environment is running, stop it by running the appropriate command:

   UNIX:

   ```
   ./spl.sh stop
   ```

   Windows:

   ```
   spl.cmd stop
   ```

5. Change to the <TEMPDIR>/`MWM.V2.2.0.1.0` Directory.
6. Execute the install script:

   Note: On UNIX, ensure that you have the proper execute permission on install.sh.

   UNIX:

   ```
   ksh ./install.sh
   ```

   Windows:

   ```
   install.cmd
   ```

Once the install has finished successfully, execute post installation steps as described in the following section, Performing Post-Installation Tasks.

Performing Post-Installation Tasks

Run the Post-install Script:

1. Change directory.
   cd <install_dir>/bin

where <install_dir> is the location where the Oracle Utilities Mobile Workforce Management application component is installed.

2. Initialize the environment by running the appropriate command:
   UNIX:

```
./splenviron.sh -e <ENV NAME>
```

   Windows:

```
splenviron.cmd -e <ENV NAME>
```

3. Run the post-installation script:
   UNIX:

```
$cd $SPLEBASE/runtime
$ksh ./cdfDeploy.sh
```

   Note: If you get permission errors while running this script, run the following command to set the permissions, then repeat the above step.

```
chmod 755 cdfDeploy.sh
```

   Windows:

```
C:\> cd %SPLEBASE%\runtime
C:\> cdfDeploy.sh
```

Generate the Appviewer:

Generate the appviewer by following the steps below:

UNIX:

```
$cd $SPLEBASE/bin
ksh ./genappvieweritems.sh
```

Windows:

```
C:\> cd %SPLEBASE%\bin
C:\> genappvieweritems.cmd
```

After the Installation

After you complete the installation, verify the following:

1. Verify installation logs created under decompressed installer location for any errors.
2. Confirm installation logs do not contain any errors.
3. Confirm all the configurations are correct. Refer to Appendix Installation and Configuration Worksheets for details.
4. Confirm that the database is ready.
5. Generate appviewer.
6. Start the application server. For instructions, refer to Appendix Common Maintenance Activities.
7. To operate the application, refer to the following section.

Operating the Application

At this point your installation and custom integration process is complete. Be sure to read the Oracle Utilities Mobile Workforce Management*Administration Guide* for more information on further configuring and operating the system.

Installing Service Packs and Patches

Periodically, Oracle Utilities releases a service pack of single fixes for its products. A service pack is an update to an existing release that includes solutions to known problems and other product enhancements. A service pack is not a replacement for an installation, but a pack consisting of a collection of changes and additions for it. The service pack may include changes to be applied to the application server, the database, or both. The service pack includes all files necessary for installing the collection of changes, including installation instructions.

Between services packs, Oracle Utilities releases patches to fix individual bugs. For information on installing patches, refer to knowledge base article ID 974985.1 on My Oracle Support.

Service packs and patches can be downloaded from My Oracle Support (https://support.oracle.com/).

Chapter 6

Upgrading Oracle Utilities Mobile Workforce Management

This chapter provides instructions for upgrading Oracle Utilities Mobile Workforce Management from v2.1.0.6 to v2.2.0.1 or from v2.2.0.0 to v2.2.0.1.

Note: The software components that are required for an upgrade installation are available for download from the Oracle Software Delivery Cloud.

This chapter includes information on the following:

Before You Upgrade

MCP Version Control Enhancement

The MCP version control enhancement requires that a certain upgrade process be followed to ensure that no data is lost and no incompatible version issues arise.

The upgrade process includes the following steps:

1. All mobile devices should end their shifts and log off.
2. Upgrade the server and all MDTs.
3. Regenerate all deployments.

For more information about this enhancement and upgrade considerations, refer to Chapter "Deploying the Application to Mobile Devices," in the Oracle Utilities Mobile Workforce Management *Configuration Guide*.

Processing Stale RSI messages

RSI messages are messages that are sent from the MCP device to the server. After a system upgrade, due to serialization issues, older RSI messages may not be recoverable. Therefore, RSI messages must be processed before an upgrade.

To process stale RSI messages, follow the procedure below:

1. To check for RSI messages which are in a non-finalized state (stale RSI messages), run the SQL query:

   ```
   select count(*) from m1_srvr_status where status_lookup_flg =
'M1QU'
   ```

2. If this query returns any records (count >0), run the RSI Batch Process job (Batch Name: M1-RSIBP).
3. This batch job processes queued RSI messages.
   - If the record executed successfully, the status of the record is changed to Delivered (M1DE).
   - If any application error occurred, the status of the record is changed to Error (M1ER).
4. After completion of batch process, run the following SQL query:

   ```
   select count(*) from m1_srvr_status where status_lookup_flg =
'M1QU'
   ```

   If running this query returns any records (count>0), those records may not be recoverable.
5. Continue with the system upgrade.

   In addition, refer to My Oracle Support for up-to-date additional information on Oracle Utilities Mobile Workforce Management.

Upgrade Installation Procedure

The upgrade procedure consists of:

- Database Component Upgrade
- Application Components Upgrade
- Mobile Client Upgrade

Database Component Upgrade

Upgrading of the database component of Oracle Utilities Mobile Workforce Management must be complete before you can proceed with the following sections. Refer to the section "**Upgrade Install**" of the Oracle Utilities Mobile Workforce Management *Database Administrator's Guide*, which provides instructions on installing the database component.

Application Components Upgrade

The following upgrade paths are supported by this release:

- Upgrading Oracle Utilities Mobile Workforce Management from v2.1.0.6 to v2.2.0.1

  (or)

- Upgrading Oracle Utilities Mobile Workforce Management from v2.2.0.0 to v2.2.0.1

Upgrading Oracle Utilities Mobile Workforce Management from v2.1.0.6 to v2.2.0.1

A successful upgrade consists of the following steps:

- Installing Oracle Utilities Application Framework v4.2.0.0 Service Pack 2
- Installing Oracle Utilities Application Framework v4.2.0.2 Single Fix PreRequisite Rollup for ORS v2.2.0.1
- Installing the Oracle Real-Time Scheduler Component v2.2.0.1
- Installing the Oracle Utilities Mobile Workforce Management Application Component v2.2.0.1

Installing Oracle Utilities Application Framework v4.2.0.0 Service Pack 2

This section describes how to install the application framework component, including:

- Copying and Decompressing Install Media
- Setting Permissions for the cistab file in UNIX
- Preparing for the Installation

Copying and Decompressing Install Media

The installation file is delivered in jar format for both UNIX and Windows platforms. Download the installation package and proceed as follows:

1. Log in to the host server as the Oracle Utilities Application Framework administrator user ID. This is the same user ID that was used to install the Oracle Utilities Application Framework.
2. Create a <TEMPDIR> directory on the host server, which is independent of any current or other working Oracle Utilities Framework application environment. This can be the same <TEMPDIR> used during the installation of the Oracle Utilities Application Framework.
3. Copy the file FW-V4.2.0.2.0-MultiPlatform.jar in the delivered package to a <TEMPDIR> on your host server. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
4. Decompress the file:

```
cd <TEMPDIR>
jar -xvf FW-V4.2.0.2.0-MultiPlatform.jar
```

For Windows installations, include the location of the JDK in your path before you execute the jar command.

For both Unix and Windows platforms, a sub-directory named FW.V4.2.0.2.0 is created. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application.

Setting Permissions for the cistab file in UNIX

Every Oracle Utilities Application Framework environment installed on a server must be registered in the /etc/cistab file located on that server. On UNIX servers, generally only the root user ID has write permissions to the /etc directory. Since the installation process is run by the Oracle administrator user ID (cissys), this user ID may not be able to write to /etc/cistab table.

The install utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the <TEMPDIR>/FW.V4.2.0.2.0 directory named cistab_<SPLENVIRON>.sh. Run the generated script using the root account before continuing with the installation process. The script initializes the cistab file in /etc directory (if it is the first Oracle Utilities Framework application environment on the server) and registers a new environment.

The generated script also changes the owner of /etc/cistab file to the Oracle Utilities Framework administrator user ID, so that the next time a new environment is created by the same Oracle Utilities Framework administrator user ID, you do not need to run the generated script with the root user ID. Instead the install utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of /etc/cistab entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case.

If you are planning to upgrade an existing environment it is your responsibility to take a backup prior to the installation process. The installation utility does not create a backup of existing environment.

Preparing for the Installation

1. Log on as the administrator (default cissys).
2. Change directory to the <TEMPDIR>/FW.V4.2.0.2.0 directory.
3. Set the ORACLE_CLIENT_HOME and PATH variables as Oracle Client Perl is required to run the installer.

   UNIX:

   ```
   export ORACLE_CLIENT_HOME=<ORACLE CLIENT INSTALL LOCATION>
   export PERL_HOME=${ORACLE_CLIENT_HOME}/perl
   export PATH=${PERL_HOME}/bin:$PATH
   export PERL5LIB=${PERL_HOME}/lib:${PERL_HOME}/lib/site_perl:<OUAF
                     Installer Decompressed location/data/bin/perlib>
   export PERLLIB=${PERL_HOME}/lib:${PERL_HOME}/lib/site_perl:<OUAF
                     Installer Decompressed location/data/bin/perlib>
   export LD_LIBRARY_PATH=${ORACLE_CLIENT_HOME}/lib:$LD_LIBRARY_PATH
   ```

   Windows:

   ```
   set ORACLE_CLIENT_HOME=<ORACLE CLIENT INSTALL LOCATION>
   set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
   set PATH=%PERL_HOME%\bin;%PATH%
   ```

4. Start the application installation utility by executing the appropriate script:

   UNIX:

   ```
   ksh ./install.sh
   ```

   Windows:

   ```
   install.cmd
   ```

5. The Oracle Utilities Application Framework specific menu appears.
6. Follow the messages and instructions that are produced by the application installation utility.
7. Select each menu item to configure the values. For detailed description of the values, refer to Appendix Installation and Configuration Worksheets.
8. Below are the mandatory list of configurable items along with descriptions for a few items. Where you see <Mandatory>, enter values suitable to your environment. You can assign default values to the rest of the menu items.

   ```
   ************************************
   * Environment Installation Options *
   ************************************
   1. Third Party Software Configuration
        Oracle Client Home Directory: <Mandatory>
        Web Java Home Directory:      <Mandatory>
        Child JVM Home Directory:
   ```

```
     COBOL Home Directory:
     Hibernate JAR Directory: <Mandatory>
     ONS JAR Directory:
     Web Application Server Home Directory: <Mandatory>
     ADF Home Directory:
     OIM OAM Enabled Environment:

50. Environment Installation Options
     Environment Mount Point: <Mandatory> - Install Location
     Log Files Mount Point:<Mandatory> - ThreadPoolWorker Logs
                                  Location
     Environment Name:<Mandatory>
     Web Application Server Type:                        WLS
     Install Application Viewer Module:                  true

Each item in the above list should be configured for a
 successful install.
Choose option (1,50, <P> Process, <X> Exit):
```

9. Once you enter 'P' after entering mandatory input values in the above menu, the system populates another configuration menu.

```
************************************************************
* Environment Configuration *
************************************************************
 1. Environment Description
     Environment Description:    <Mandatory>

 2. Business Application Server Configuration
     Business Server Host:       <Mandatory> - Hostname on which
                              application being installed
     WebLogic Server Name:       myserver
     Business Server Application Name: SPLService
     MPL Admin Port Number:      <Mandatory> - Multipurpose
                                          Listener Port
     MPL Automatic startup:      false

 3. Web Application Server Configuration
     Web Server Host:            <Mandatory>
     Web Server Port Number:     <Mandatory>
     Web Context Root:           ouaf
     WebLogic JNDI User ID:      <Mandatory>
     WebLogic JNDI Password:    <Mandatory>
     WebLogic Admin System User ID:    <Mandatory>
     WebLogic Admin System Password:   <Mandatory>
     WebLogic Server Name:             myserver
     Web Server Application Name:      SPLWeb
     Application Admin User ID:        <Mandatory>
     Application Admin Password:       <Mandatory>
     Expanded Directories:             false
     Application Viewer Module:        true

4. Database Configuration
    Application Server Database User ID:   <Mandatory>
     Application Server Database Password:    <Mandatory>
     MPL Database User ID:                    <Mandatory>
     MPL Database Password:                   <Mandatory>
     XAI Database User ID:                    <Mandatory>
     XAI Database Password:                   <Mandatory>
     Batch Database User ID:                  <Mandatory>
     Batch Database Password:                 <Mandatory>
```

```
        Database Name:                          <Mandatory>
        Database Server:                        <Mandatory>
        Database Port:                          <Mandatory>
        ONS Server Configuration:
        Database Override Connection String:
        Oracle Client Character Set NLS_LANG:

    5. General Configuration Options
         Batch RMI Port:                        <Mandatory> - RMI
                                                    port for batch
         Batch Mode:                           <Mandatory> -
                                              CLUSTERED or DISTRIBUTED
         Coherence Cluster Name:                 <Mandatory> - Unique
                                                     name for batch
         Coherence Cluster Address:              <Mandatory> - Unique
                                                   multicast address
        Coherence Cluster Port:                  <Mandatory> - Unique
                                               port for batch cluster
       Coherence Cluster Mode:                     <Mandatory> - prod

     Each item in the above list should be configured for a
    successful install.

  Choose option (1,2,3,4,5, <P> Process, <X> Exit):
```

10. When you are done with the parameter setup, proceed with the option P. The utility writes the configured parameters and their values into the configuration file.

Once the install has finished, the installation log location appears on the screen. If the log does not list any error messages, the installation of the application component of Oracle Utilities Application Framework is complete.

Installing Oracle Utilities Application Framework v4.2.0.2 Single Fix PreRequisite Rollup for ORS v2.2.0.1

1. Create a <TEMPDIR> directory on the host server that is independent of any current or other working application environment.
2. Copy the file 'ORS-v2.2.0.1.0-FW-PREREQ-Multiplatform.zip' in the delivered package to <TEMPDIR>.
   If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.

   Upon extracting the zip file, a sub- directory 'Application-Server-Multiplatform' will be created.
3. Refer to the Readme.txt inside 'Application-Server-Multiplatform' to install Application related FW patch.

Installing the Oracle Real-Time Scheduler Component v2.2.0.1

This section describes how to install the application component of Oracle Real-Time Scheduler, including:

1. Create a <TEMPDIR> directory on the host server that is independent of any current or other working Oracle Real-Time Scheduler application environment.
2. Unzip 'Oracle Real-Time Scheduler v2.2.0.1.0 Multiplatform.zip' and copy the file ORS-V2.2.0.1.0-MultiPlatform.jar in the delivered package to <TEMPDIR>.
   If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
3. Decompress the file using following command:

```
cd <TEMPDIR>
jar -xvf ORS-V2.2.0.1.0-MultiPlatform.jar
```

Note: For Windows installations, include the location of the JDK in your path before executing the jar command.

For both Unix and Windows platforms, a sub-directory named ORS.V2.2.0.1.0 is created.

4. Initialize the Oracle Real-Time Scheduler environment that you want to install the product into.

   UNIX:

   ```
   <SPLEBASE>/bin/splenviron.sh -e <SPLENVIRON>
   ```

   Windows:

   ```
   <SPLEBASE>\bin\splenviron.cmd -e <SPLENVIRON>
   ```

5. Stop the application server instance if running.

6. Change to the <TEMPDIR>/ORS.V2.2.0.1.0 directory.

7. Execute the following command:

   Note: On UNIX, ensure that you have the proper execute permission on install.sh

   UNIX:

   ```
   ksh ./install.sh
   ```

   Windows:

   ```
   install.cmd
   ```

   The application specific menu opens.

8. Select the following menu items and enter mandatory fields.
   Refer to the Oracle Real-Time Scheduler Installation and Configuration Worksheets for more information.

```
8. JMS Configuration
       Context Factory: <Mandatory> Weblogic
       WebLogic Server URL:     <Mandatory> Weblogic
       Weblogic System User ID:    <Mandatory> Weblogic
       Weblogic System Password:  <Mandatory>
       Time Out:     <Mandatory>

9. ORS Environment Description
       ORS Scheduler Map Files Location:   <Mandatory>
       Schedule Manager Port Number:  <Mandatory>
       Minimum Requests:    <Mandatory>
       Maximum Time (seconds) Booking Requests:   <Mandatory>
       Unique identifier for the instance of the JVM:
                                                  <Mandatory>
       Registry cleanse timing in seconds:    <Mandatory>
       Scheduler connection timeout in milliseconds:
                                                  <Mandatory>
       Scheduler maintenance cycle time in seconds: <Mandatory>

10. Geocode Data Source Configuration
       JDBC URL for the Geocode database:      <Mandatory>
       Database User Name:  <Mandatory>
       Database Password:     <Mandatory>
       JNDI name for the Geocode datasource: <Mandatory>

11. Mapviewer Configuration
       Deploy mapviewer locally on this instance:  <Mandatory>
       Location of mapviewer ear file:   <Mandatory>
```

```
12. Security Configuration
       Deploy only mobility web application:   <Mandatory>
        Allow Self Signed SSL Certificates: <Mandatory>
```

9. Choose the options for configuration and enter P to proceed with the installation.
10. Execute the following command:

    Note: On UNIX, ensure that you have the proper execute permission on ORS_postinstall.sh

    UNIX:

    ```
    cd <SPLEBASE>/runtime
    ksh ./ORS_postinstall.sh
    ```

    Windows:

    ```
    cd %SPLEBASE%\runtime
    ORS_postinstall.cmd
    ```

Installing the Oracle Utilities Mobile Workforce Management Application Component v2.2.0.1

This section describes how to install the application component of Oracle Utilities Mobile Workforce Management, including:

- **Copying and Decompressing Install Media**
- **Installing the Application Component**
- **Performing Post-Installation Tasks**

Copying and Decompressing Install Media

The Oracle Utilities Mobile Workforce Management installation file is delivered in jar format for both UNIX and Windows platforms.

To copy and decompress the install media, follow these steps:

1. Log in to the application server host as the administrator user ID (default cissys). This is the same user ID that was used to install the Oracle Utilities Application Framework.
2. Download the Oracle Utilities Mobile Workforce Management v2.2.0.1 Multiplatform from Oracle Software Delivery Cloud.
3. Create a <TEMPDIR> directory on the host server, which is independent of any current or other working Oracle Utilities Mobile Workforce Management application environment. This can be the same <TEMPDIR> used during the installation of the Oracle Utilities Application Framework.
4. Copy the file MWM-V2.2.0.1.0-MultiPlatform.jar in the delivered package to a <TEMPDIR> on your host server. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
5. Decompress the file:

   ```
   cd <TEMPDIR>
   jar -xvf MWM-V2.2.0.1.0-MultiPlatform.jar
   ```

   For Windows installations, include the location of the JDK in your path before you execute the jar command.

For both Unix and Windows platforms, a sub-directory named `MWM.V2.2.0.1.0` is created. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application product.

Installing the Application Component

Follow the steps below to install Oracle Utilities Mobile Workforce Management application component:

1. Log in to the application server host as the administrator user ID (default cissys).
2. Change directory:

   ```
   cd <install_dir>/bin
   ```

   where <install_dir> is the location where the Oracle Utilities Mobile Workforce Management application component is installed.
3. Initialize the environment by running the appropriate command:

   UNIX:

   ```
   ./splenviron.sh -e <ENV NAME>
   ```

   Windows:

   ```
   splenviron.cmd -e <ENV NAME>
   ```

4. If the environment is running, stop it by running the appropriate command:

   UNIX:

   ```
   ./spl.sh stop
   ```

   Windows:

   ```
   spl.cmd stop
   ```

5. Change to the <TEMPDIR>/`MWM.V2.2.0.1.0` Directory.
6. Execute the install script:

   Note: On UNIX, ensure that you have the proper execute permission on install.sh.

   UNIX:

   ```
   ksh ./install.sh
   ```

   Windows:

   ```
   install.cmd
   ```

Once the install has finished successfully, execute post installation steps as described in the following section, Performing Post-Installation Tasks.

Performing Post-Installation Tasks

1. Run the post install script by following the steps below:

   a. Change directory.

   ```
   cd <install_dir>/bin
   ```

   where <install_dir> is the location where the Oracle Utilities Mobile Workforce Management application component is installed.

   b. Initialize the environment by running the appropriate command:

   UNIX:

   ```
   ./splenviron.sh -e <ENV NAME>
   ```

   Windows:

   ```
   splenviron.cmd -e <ENV NAME>
   ```

   c. Run the post-installation script:

UNIX:

```
$cd $SPLEBASE/runtime
$ksh ./cdfDeploy.sh
```

Note: If you get permission errors while running this script, run the following command to set the permissions, then repeat the above step.

```
chmod 755 cdfDeploy.sh
```

Windows:

```
C:\> cd %SPLEBASE%\runtime
C:\> cdfDeploy.cmd
```

4. Generate the appviewer by following the steps below:

UNIX:

```
$cd $SPLEBASE/bin
ksh ./genappvieweritems.sh
```

Windows:

```
C:\> cd %SPLEBASE%\bin
C:\> genappvieweritems.cmd
```

Upgrading Oracle Utilities Mobile Workforce Management from v2.2.0.0 to v2.2.0.1

A successful upgrade consists of the following steps:

- Installing Oracle Utilities Application Framework v4.2.0.0 Service Pack 2
- Installing Oracle Utilities Application Framework v4.2.0.2 Single Fix PreRequisite Rollup for ORS v2.2.0.1
- Installing the Oracle Real-Time Scheduler Component v2.2.0.1
- Installing the Oracle Utilities Mobile Workforce Management Application Component v2.2.0.1

Installing Oracle Utilities Application Framework v4.2.0.0 Service Pack 2

This section describes how to install the application framework component, including:

- Copying and Decompressing Install Media
- Preparing for the Installation
- Installing the Service Pack

Copying and Decompressing Install Media

The installation file is delivered in jar format for both UNIX and Windows platforms. Download the installation package and proceed as follows:

1. Log in to the host server as the Oracle Utilities Application Framework administrator user ID. This is the same user ID that was used to install the Oracle Utilities Application Framework.
2. Create a <TEMPDIR> directory on the host server, which is independent of any current or other working Oracle Utilities Framework application environment. This can be the same <TEMPDIR> used during the installation of the Oracle Utilities Application Framework.
3. Copy the file FW-V4.2.0.2.0-MultiPlatform.jar in the delivered package to a <TEMPDIR> on your host server. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
4. Decompress the file:

```
cd <TEMPDIR>
jar -xvf FW-V4.2.0.2.0-MultiPlatform.jar
```

For Windows installations, include the location of the JDK in your path before you execute the jar command.

For both Unix and Windows platforms, a sub-directory named FW.V4.2.0.2.0 is created. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application.

Preparing for the Installation

1. Log on as the administrator (default cissys).
2. Initialize the Oracle Utilities Application Framework environment that you want to install the product into by running the appropriate command:

   UNIX:

   ```
   $SPLEBASE/bin/splenviron.sh -e $SPLENVIRON
   ```

   Windows:

   ```
   %SPLEBASE%\bin\splenviron.cmd -e %SPLENVIRON%
   ```

3. Stop the environment, if running:

UNIX:

```
$SPLEBASE/bin/spl.sh stop
```

Windows:

```
%SPLEBASE%\bin\spl.cmd stop
```

Installing the Service Pack

Follow these steps to install the service pack:

1. Change to the <TEMPDIR>/ FW.V4.2.0.2.0 directory.
2. Execute the script:

   UNIX:

   ```
   ksh ./installSP.sh
   ```

   Windows:

   ```
   installSP.cmd
   ```

Note: On UNIX, ensure that you have the proper execute permission on installSP.sh

Installing Oracle Utilities Application Framework v4.2.0.2 Single Fix PreRequisite Rollup for ORS v2.2.0.1

1. Create a <TEMPDIR> directory on the host server that is independent of any current or other working application environment.
2. Copy the file 'ORS-v2.2.0.1.0-FW-PREREQ-Multiplatform.zip' in the delivered package to <TEMPDIR>.
   If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.

   Upon extracting the zip file, a sub- directory 'Application-Server-Multiplatform' will be created.
3. Refer to the Readme.txt inside 'Application-Server-Multiplatform' to install Application related FW patch.

Installing the Oracle Real-Time Scheduler Component v2.2.0.1

This section describes how to install the application component of Oracle Real-Time Scheduler, including:

1. Create a <TEMPDIR> directory on the host server that is independent of any current or other working Oracle Real-Time Scheduler application environment.
2. Unzip 'Oracle Real-Time Scheduler v2.2.0.1.0 Multiplatform.zip' and copy the file ORS-V2.2.0.1.0-MultiPlatform.jar in the delivered package to <TEMPDIR>.
   If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
3. Decompress the file using following command:

   ```
   cd <TEMPDIR>
   jar -xvf ORS-V2.2.0.1.0-MultiPlatform.jar
   ```

   Note: For Windows installations, include the location of the JDK in your path before executing the jar command.

   For both Unix and Windows platforms, a sub-directory named ORS.V2.2.0.1.0 is created.
4. Initialize the Oracle Real-Time Scheduler environment that you want to install the product into.

   UNIX:

   ```
   <SPLEBASE>/bin/splenviron.sh -e <SPLENVIRON>
   ```

Windows:

```
<SPLEBASE>\bin\splenviron.cmd -e <SPLENVIRON>
```

5. Stop the application server instance if running.
6. Change to the <TEMPDIR>/ORS.V2.2.0.1.0 directory.
7. Execute the following command:

   Note: On UNIX, ensure that you have the proper execute permission on install.sh

   UNIX:

   ```
   ksh ./install.sh
   ```

   Windows:

   ```
   install.cmd
   ```

   The application specific menu opens.
8. Select the following menu items and enter mandatory fields.
   Refer to the Oracle Real-Time Scheduler Installation and Configuration Worksheets for more information.

```
8. JMS Configuration
       Context Factory: <Mandatory> Weblogic
       WebLogic Server URL:     <Mandatory> Weblogic
       Weblogic System User ID:    <Mandatory> Weblogic
       Weblogic System Password:  <Mandatory>
       Time Out:     <Mandatory>

9. ORS Environment Description
       ORS Scheduler Map Files Location:   <Mandatory>
       Schedule Manager Port Number:  <Mandatory>
       Minimum Requests:    <Mandatory>
       Maximum Time (seconds) Booking Requests:   <Mandatory>
       Unique identifier for the instance of the JVM:
                                                  <Mandatory>
       Registry cleanse timing in seconds:    <Mandatory>
       Scheduler connection timeout in milliseconds:
                                                  <Mandatory>
       Scheduler maintenance cycle time in seconds: <Mandatory>

10. Geocode Data Source Configuration
       JDBC URL for the Geocode database:      <Mandatory>
       Database User Name:  <Mandatory>
       Database Password:     <Mandatory>
       JNDI name for the Geocode datasource: <Mandatory>

11. Mapviewer Configuration
       Deploy mapviewer locally on this instance:  <Mandatory>
       Location of mapviewer ear file:   <Mandatory>

12. Security Configuration
       Deploy only mobility web application:   <Mandatory>
        Allow Self Signed SSL Certificates: <Mandatory>
```

9. Choose the options for configuration and enter P to proceed with the installation.
10. Execute the following command:

    Note: On UNIX, ensure that you have the proper execute permission on ORS_postinstall.sh

    UNIX:

    ```
    cd <SPLEBASE>/runtime
    ```

```
ksh ./ORS_postinstall.sh
```

Windows:

```
cd %SPLEBASE%\runtime
ORS_postinstall.cmd
```

Installing the Oracle Utilities Mobile Workforce Management Application Component v2.2.0.1

This section describes how to install the application component of Oracle Utilities Mobile Workforce Management, including:

- **Copying and Decompressing Install Media**
- **Installing the Application Component**
- **Performing Post-Installation Tasks**

Copying and Decompressing Install Media

The Oracle Utilities Mobile Workforce Management installation file is delivered in jar format for both UNIX and Windows platforms.

To copy and decompress the install media, follow these steps:

1. Log in to the application server host as the administrator user ID (default cissys). This is the same user ID that was used to install the Oracle Utilities Application Framework.
2. Download the Oracle Utilities Mobile Workforce Management v2.2.0.1 Multiplatform from Oracle Software Delivery Cloud.
3. Create a <TEMPDIR> directory on the host server, which is independent of any current or other working Oracle Utilities Mobile Workforce Management application environment. This can be the same <TEMPDIR> used during the installation of the Oracle Utilities Application Framework.
4. Copy the file MWM-V2.2.0.1.0-MultiPlatform.jar in the delivered package to a <TEMPDIR> on your host server. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
5. Decompress the file:

   ```
   cd <TEMPDIR>
   jar -xvf MWM-V2.2.0.1.0-MultiPlatform.jar
   ```

   For Windows installations, include the location of the JDK in your path before you execute the jar command.

For both Unix and Windows platforms, a sub-directory named MWM.V.2.2.0.1.0 is created. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application product.

Installing the Application Component

Follow the steps below to install Oracle Utilities Mobile Workforce Management application component:

1. Log in to the application server host as the administrator user ID (default cissys).
2. Change directory:

   ```
   cd <install_dir>/bin
   ```

   where <install_dir> is the location where the Oracle Utilities Mobile Workforce Management application component is installed.
3. Initialize the environment by running the appropriate command:

UNIX:

```
./splenviron.sh -e <ENV NAME>
```

Windows:

```
splenviron.cmd -e <ENV NAME>
```

4. If the environment is running, stop it by running the appropriate command:

   UNIX:

   ```
   ./spl.sh stop
   ```

   Windows:

   ```
   spl.cmd stop
   ```

5. Change to the <TEMPDIR>/`MWM.V.2.2.0.1.0` Directory.
6. Execute the install script:

   Note: On UNIX, ensure that you have the proper execute permission on install.sh.

   UNIX:

   ```
   ksh ./install.sh
   ```

   Windows:

   ```
   install.cmd
   ```

Once the install has finished successfully, execute post installation steps as described in the following section, Performing Post-Installation Tasks.

Performing Post-Installation Tasks

1. Run the post install script by following the steps below:

   a. Change directory.

   ```
   cd <install_dir>/bin
   ```

   where <install_dir> is the location where the Oracle Utilities Mobile Workforce Management application component is installed.

   b. Initialize the environment by running the appropriate command:

   UNIX:

   ```
   ./splenviron.sh -e <ENV NAME>
   ```

   Windows:

   ```
   splenviron.cmd -e <ENV NAME>
   ```

   c. Run the post-installation script:

   UNIX:

   ```
   $cd $SPLEBASE/runtime
   $ksh ./cdfDeploy.sh
   ```

   Note: If you get permission errors while running this script, run the following command to set the permissions, then repeat the above step.

   ```
   chmod 755 cdfDeploy.sh
   ```

Windows:

```
C:\> cd %SPLEBASE%\runtime
C:\> cdfDeploy.cmd
```

4. Generate the appviewer by following the steps below:

UNIX:

```
$cd $SPLEBASE/bin
ksh ./genappvieweritems.sh
```

Windows:

```
C:\> cd %SPLEBASE%\bin
C:\> genappvieweritems.cmd
```

Mobile Client Upgrade

The following mobile client upgrade paths are supported by this release:

- Upgrading the mobile client of Oracle Utilities Mobile Workforce Management from v2.1.0.6 to v2.2.0.1
- Upgrading the mobile client of Oracle Utilities Mobile Workforce Management from v2.2.0.0 to v2.2.0.1

This section consists of:

- Upgrading the Mobile Client on Windows
- Upgrading the Mobile Client on Android
- Registering the Mobile Device

Upgrading the Mobile Client on Windows

This section consists of:

- Upgrading the Mobile Client on Windows 7
- Upgrading the Mobile Client on Windows Embedded

Upgrading the Mobile Client on Windows 7

You can chose to upgrade the mobile client using either the command-line option or the user interface.

Command-line option

To upgrade the mobile client on Windows 7, execute the following command:

```
msiexec /i "<Location of OracleMWM.msi>"  TARGETDIR="C:\MWMApp\"
/qn
```

(OR)

GUI Option

To upgrade the mobile client on Windows 7 using the GUI, follow the steps below:

1. Extract OracleMWM.msi from ORS-V2.2.0.1.0-Mobile-Client-Win.zip and copy it to a temporary directory.
2. Double click the OracleMWM.msi file to start the installation process.
3. Click **Next** to proceed with the upgrade of Oracle Utilities Mobile Workforce Management 2.2.0.1 Mobile Client on your machine.

4. Select a folder/hard drive location (specify the same location as that of already installed version) to upgrade the application to.
5. Click **Next** to proceed with the upgrade process.
6. Click **Close** after the upgrade is successful.
   The mobile client application is now accessible from shortcuts created on the Desktop or Start Menu.

Upgrading the Mobile Client on Windows Embedded

You can chose to upgrade the mobile client using either the silent option or the user interface.

Silent Update option

To upgrade the mobile client on Windows Embedded using the silent option, execute the **UpdateMCP link** file present inside ORS-V2.2.0.1.0-Mobile-Client-WinMobile.zip.

In this case, you must place both the OracleMWM.CAB and UpdateMCP link in the root folder of the device.

(OR)

GUI Option

To upgrade the mobile client on Windows Embedded using the GUI, follow the steps below:

1. Extract OracleMWM.CAB from ORS-V2.2.0.1.0-Mobile-Client-WinMobile.zip and copy it to a temporary directory on the mobile device.
2. Tap the OracleMWM.CAB file to start the upgrade process.
3. On the first prompt, "The previous version of Oracle MWM will be removed before the new one is installed. Select OK to continue or Cancel to quit", click **OK**.
4. If prompted, select **Device** as the location to be upgraded.
5. Click **Close** after the upgrade is successful.
6. After completing the MCP upgrade, delete the CAB file (OracleMWM.CAB) and reboot the mobile device.
   The mobile client application is now accessible from shortcuts created on the **Start** > **Programs** menu.

Upgrading the Mobile Client on Android

To upgrade the mobile client on Android device, you must first un-install the installed APK and then install the new APK. You can choose to perform this using the command-line option or through the GUI.

Command-line option:

To perform this using the command-line option, execute the following commands:

```
adb uninstall com.splwg.base.android
adb install <path of apk>
```

(OR)

GUI option:

To perform this using the GUI, follow the procedure below:

Un-installing the Mobile Client

1. Open **Settings**, **Applications**, **Manage Applications** and click the Oracle MWM application.
2. Click **Uninstall** to remove Android MCP from your device. Do not select **Clear data**.

Installing the Mobile Client

1. Extract OracleMWM.apk from the ORS-V2.2.0.1.0-Mobile-Client-Android.zip file and copy it to a temporary directory.
2. Connect the device to the desktop or laptop.
3. Copy the OracleMWM.apk file to the removable disk (select My Computer for the drive letter)
4. Verify that non-Market applications can be installed.
5. Open **Settings**, **Applications** and select **Unknown sources**.
6. Use a file explorer on the device such as MyFiles to locate the APK file on the SD card.
7. Launch the file.
8. Confirm the installation by clicking **Install**.
The application will now be installed.
9. After the application is installed, click **Done**.
You have now successfully installed the mobile client.

Registering the Mobile Device

The mobile device needs to be registered with the Oracle Utilities Mobile Workforce Management application server before it can start using the application features. Ensure that the Oracle Utilities Mobile Workforce Management application is installed and running before registering the mobile device.

Please refer to the Oracle Utilities Mobile Workforce Management *Mobile Application User Guide* for the steps to register a device with the server.

> **Note**: After installing the mobile client for this release, an MCP Backup properties file (titled BackupMDT.properties) gets created. For Android devices, this file gets created inside "mcpbackup" folder inside the SD card. For Windows devices, this file gets created inside "\MWMApp\data" directory. This properties file stores information related to the previous device registration (if any).

When the mobile client is un-installed at a later point in time, the BackupMDT.properties file does not get deleted as part of the un-installation process. As a workaround, the BackupMDT.properties must be deleted manually or through scripting for any changes to the MDT Tag or MDT URL.

After the Installation

After you complete the installation, verify the following:

1. Verify installation logs created under decompressed installer location for any errors.
2. Confirm installation logs do not contain any errors.
3. Confirm all the configurations are correct. Refer to Appendix Installation and Configuration Worksheets for details.
4. Confirm that the database is ready.
5. Generate appviewer.
6. Start the application server. For instructions, refer to Appendix Common Maintenance Activities.
7. To operate the application, refer to the following section.

Operating the Application

At this point your installation and custom integration process is complete. Be sure to read the Oracle Utilities Mobile Workforce Management *Administration Guide* for more information on further configuring and operating the system.

Installing Service Packs and Patches

Periodically, Oracle Utilities releases a service pack of single fixes for its products. A service pack is an update to an existing release that includes solutions to known problems and other product enhancements. A service pack is not a replacement for an installation, but a pack consisting of a collection of changes and additions for it. The service pack may include changes to be applied to the application server, the database, or both. The service pack includes all files necessary for installing the collection of changes, including installation instructions.

Between services packs, Oracle Utilities releases patches to fix individual bugs. For information on installing patches, refer to knowledge base article ID 974985.1 on My Oracle Support.

Service packs and patches can be downloaded from My Oracle Support (https://support.oracle.com/).

Chapter 7

Installing Oracle Utilities Mobile Workforce Management - Demo Installation

This chapter provides instructions for installing Oracle Utilities Mobile Workforce Management for demo purpose.

Note: The software components that are required for an demo installation are available for download from the Oracle Software Delivery Cloud.

This chapter includes information on the following:

Before You Install

Refer to My Oracle Support for up-to-date additional information on Oracle Utilities Mobile Workforce Management.

Demo Installation Procedure

The initial installation procedure consists of:

- Database Component Installation
- Application Components Installation

Database Component Installation

Installation of the database component of Oracle Utilities Mobile Workforce Management must be complete before you can proceed with the following sections. Refer to the section "**Demo Install**" of the *Oracle Utilities Mobile Workforce Management Database Administrator's Guide*, which provides instructions on installing the database component.

Application Components Installation

A successful installation consists of the following steps:

- Installing Oracle Utilities Application Framework v4.2.0.0 Service Pack 2
- Installing Oracle Utilities Application Framework v4.2.0.2 Single Fix PreRequisite Rollup for ORS v2.2.0.1
- Installing the Oracle Real-Time Scheduler v2.2.0.1
- Installing the Oracle Utilities Mobile Workforce Management Application Component v2.2.0.1

Installing Oracle Utilities Application Framework v4.2.0.0 Service Pack 2

This section describes how to install the application framework component, including:

- Copying and Decompressing Install Media
- Setting Permissions for the cistab file in UNIX
- Preparing for the Installation

Copying and Decompressing Install Media

The installation file is delivered in jar format for both UNIX and Windows platforms. Download the installation package and proceed as follows:

1. Log in to the host server as the Oracle Utilities Application Framework administrator user ID. This is the same user ID that was used to install the Oracle Utilities Application Framework.
2. Create a <TEMPDIR> directory on the host server, which is independent of any current or other working Oracle Utilities Framework application environment. This can be the same <TEMPDIR> used during the installation of the Oracle Utilities Application Framework.

   Note: This directory must be located outside any current or other working Oracle Utilities application environment. All files that are placed in this directory as a part of the installation may be deleted after a successful installation.
3. Copy the file FW-V4.2.0.2.0-MultiPlatform.jar in the delivered package to a <TEMPDIR> on your host server. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
4. Decompress the file:

```
cd <TEMPDIR>
jar -xvf FW-V4.2.0.2.0-MultiPlatform.jar
```

For Windows installations, include the location of the JDK in your path before you execute the jar command.

For both Unix and Windows platforms, a sub-directory named FW.V4.2.0.2.0 is created. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application.

Setting Permissions for the cistab file in UNIX

Every Oracle Utilities Application Framework environment installed on a server must be registered in the /etc/cistab file located on that server. On UNIX servers, generally only the root user ID has write permissions to the /etc directory. Since the installation process is run by the Oracle administrator user ID (cissys), this user ID may not be able to write to /etc/cistab table.

The install utility checks permissions and if it identifies a lack of the necessary permissions, it generates a script in the <TEMPDIR>/FW.V4.2.0.2.0 directory named cistab_<SPLENVIRON>.sh. Run the generated script using the root account before continuing with the installation process. The script initializes the cistab file in /etc directory (if it is the first Oracle Utilities Framework application environment on the server) and registers a new environment.

The generated script also changes the owner of /etc/cistab file to the Oracle Utilities Framework administrator user ID, so that the next time a new environment is created by the same Oracle Utilities Framework administrator user ID, you do not need to run the generated script with the root user ID. Instead the install utility itself proceeds with the registration.

If you are reinstalling an existing environment, only the validation of /etc/cistab entry is done by the install utility, no new registration occurs. The install utility interactively instructs you about every step that needs to occur in each specific case.

If you are planning to upgrade an existing environment it is your responsibility to take a backup prior to the installation process. The installation utility does not create a backup of existing environment.

Preparing for the Installation

1. Log on as the administrator (default cissys).
2. Change directory to the <TEMPDIR>/FW.V4.2.0.2.0 directory.
3. Set the ORACLE_CLIENT_HOME and PATH variables as Oracle Client Perl is required to run the installer.

   UNIX:

   ```
   export ORACLE_CLIENT_HOME=<ORACLE CLIENT INSTALL LOCATION>
   export PERL_HOME=${ORACLE_CLIENT_HOME}/perl
   export PATH=${PERL_HOME}/bin:$PATH
   export PERL5LIB=${PERL_HOME}/lib:${PERL_HOME}/lib/site_perl:<OUAF
                     Installer Decompressed location/data/bin/perlib>
   export PERLLIB=${PERL_HOME}/lib:${PERL_HOME}/lib/site_perl:<OUAF
                     Installer Decompressed location/data/bin/perlib>
   export LD_LIBRARY_PATH=${ORACLE_CLIENT_HOME}/lib:$LD_LIBRARY_PATH
   ```

   Windows:

   ```
   set ORACLE_CLIENT_HOME=<ORACLE CLIENT INSTALL LOCATION>
   set PERL_HOME=%ORACLE_CLIENT_HOME%\perl
   set PATH=%PERL_HOME%\bin;%PATH%
   ```

4. Start the application installation utility by executing the appropriate script:

UNIX:

```
ksh ./install.sh
```

Windows:

```
install.cmd
```

5. The Oracle Utilities Application Framework specific menu appears.
6. Follow the messages and instructions that are produced by the application installation utility.
7. Select each menu item to configure the values. For detailed description of the values, refer to Appendix Installation and Configuration Worksheets.
8. Below are the mandatory list of configurable items along with descriptions for a few items. Where you see <Mandatory>, enter values suitable to your environment. You can assign default values to the rest of the menu items.

```
**********************************
* Environment Installation Options *
**********************************
1. Third Party Software Configuration
     Oracle Client Home Directory: <Mandatory>
     Web Java Home Directory:      <Mandatory>
     Child JVM Home Directory:
     COBOL Home Directory:
     Hibernate JAR Directory: <Mandatory>
     ONS JAR Directory:
     Web Application Server Home Directory: <Mandatory>
     ADF Home Directory:
     OIM OAM Enabled Environment:

50. Environment Installation Options
     Environment Mount Point: <Mandatory> - Install Location
     Log Files Mount Point:<Mandatory> - ThreadPoolWorker Logs
                                  Location
     Environment Name:<Mandatory>
     Web Application Server Type:                        WLS
     Install Application Viewer Module:                  true

Each item in the above list should be configured for a
 successful install.
Choose option (1,50, <P> Process, <X> Exit):
```

9. Once you enter 'P' after entering mandatory input values in the above menu, the system populates another configuration menu.

```
**********************************************************
* Environment Configuration *
**********************************************************
 1. Environment Description
     Environment Description:    <Mandatory>

 2. Business Application Server Configuration
     Business Server Host:       <Mandatory> - Hostname on which
                              application being installed
     WebLogic Server Name:       myserver
     Business Server Application Name: SPLService
     MPL Admin Port Number:      <Mandatory> - Multipurpose
                                          Listener Port
     MPL Automatic startup:      false
```

```
 3. Web Application Server Configuration
      Web Server Host:            <Mandatory>
      Web Server Port Number:     <Mandatory>
      Web Context Root:           ouaf
      WebLogic JNDI User ID:      <Mandatory>
      WebLogic JNDI Password:    <Mandatory>
      WebLogic Admin System User ID:    <Mandatory>
      WebLogic Admin System Password:   <Mandatory>
      WebLogic Server Name:             myserver
      Web Server Application Name:      SPLWeb
      Application Admin User ID:        <Mandatory>
      Application Admin Password:       <Mandatory>
      Expanded Directories:             false
      Application Viewer Module:        true

 4. Database Configuration
     Application Server Database User ID:   <Mandatory>
      Application Server Database Password:    <Mandatory>
      MPL Database User ID:                    <Mandatory>
      MPL Database Password:                   <Mandatory>
      XAI Database User ID:                    <Mandatory>
      XAI Database Password:                   <Mandatory>
      Batch Database User ID:                  <Mandatory>
      Batch Database Password:                 <Mandatory>
      Database Name:                           <Mandatory>
      Database Server:                         <Mandatory>
      Database Port:                           <Mandatory>
      ONS Server Configuration:
      Database Override Connection String:
      Oracle Client Character Set NLS_LANG:

 5. General Configuration Options
      Batch RMI Port:                          <Mandatory> - RMI
                                                   port for batch
      Batch Mode:                             <Mandatory> -
                                            CLUSTERED or DISTRIBUTED
      Coherence Cluster Name:                 <Mandatory> - Unique
                                                   name for batch
      Coherence Cluster Address:              <Mandatory> - Unique
                                                multicast address
     Coherence Cluster Port:                  <Mandatory> - Unique
                                             port for batch cluster
     Coherence Cluster Mode:                   <Mandatory> - prod

  Each item in the above list should be configured for a
 successful install.

Choose option (1,2,3,4,5, <P> Process, <X> Exit):
```

10. When you are done with the parameter setup, proceed with the option P. The utility writes the configured parameters and their values into the configuration file.
11. Once the install has finished, the installation log location appears on the screen. If the log does not list any error messages, the installation of the application component of Oracle Utilities Application Framework is complete.

Installing Oracle Utilities Application Framework v4.2.0.2 Single Fix PreRequisite Rollup for ORS v2.2.0.1

1. Create a <TEMPDIR> directory on the host server that is independent of any current or other working application environment.
2. Copy the file 'ORS-v2.2.0.1.0-FW-PREREQ-Multiplatform.zip' in the delivered package to <TEMPDIR>.

   If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
3. Upon extracting the zip file 'Application-Server-Multiplatform' sub-directory will be created.
4. Refer to the Readme.txt inside 'Application-Server-Multiplatform' to install Application related FW patch.

Installing the Oracle Real-Time Scheduler v2.2.0.1

This section describes how to install the application component of Oracle Real-Time Scheduler, including:

1. Create a <TEMPDIR> directory on the host server that is independent of any current or other working Oracle Real-Time Scheduler application environment.
2. Unzip 'Oracle Real-Time Scheduler v2.2.0.1.0 Multiplatform.zip' and copy the file ORS-V2.2.0.1.0-MultiPlatform.jar in the delivered package to <TEMPDIR>.

   If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
3. Decompress the file using following command:

   ```
   cd <TEMPDIR>
   jar -xvf ORS-V2.2.0.1.0-MultiPlatform.jar
   ```

   Note: For Windows installations, include the location of the JDK in your path before executing the jar command.

   For both Unix and Windows platforms, a sub-directory named ORS.V2.2.0.1.0 is created.
4. Initialize the Oracle Real-Time Scheduler environment that you want to install the product into.

   UNIX:

   ```
   <SPLEBASE>/bin/splenviron.sh -e <SPLENVIRON>
   ```

   Windows:

   ```
   <SPLEBASE>\bin\splenviron.cmd -e <SPLENVIRON>
   ```
5. Stop the application server instance if running.
6. Change to the <TEMPDIR>/ORS.V2.2.0.1.0 directory.
7. Execute the following command:

   Note: On UNIX, ensure that you have the proper execute permission on install.sh

   UNIX:

   ```
   ksh ./install.sh
   ```

   Windows:

   ```
   install.cmd
   ```

   The Oracle Utilities Mobile Workforce Management Application specific menu opens.

8. Select the following menu items and enter mandatory fields.
   Refer to the Oracle Real-Time Scheduler Installation and Configuration Worksheets for more information.

```
8. JMS Configuration
       Context Factory: <Mandatory> Weblogic
       WebLogic Server URL:     <Mandatory> Weblogic
       Weblogic System User ID:    <Mandatory> Weblogic
       Weblogic System Password: <Mandatory>
       Time Out:     <Mandatory>

9. ORS Environment Description
       ORS Scheduler Map Files Location:   <Mandatory>
       Schedule Manager Port Number: <Mandatory>
       Minimum Requests:    <Mandatory>
       Maximum Time (seconds) Booking Requests:   <Mandatory>
       Unique identifier for the instance of the JVM:
                                                  <Mandatory>
       Registry cleanse timing in seconds:    <Mandatory>
       Scheduler connection timeout in milliseconds:
                                                  <Mandatory>
       Scheduler maintenance cycle time in seconds: <Mandatory>

10. Geocode Data Source Configuration
       JDBC URL for the Geocode database:      <Mandatory>
       Database User Name: <Mandatory>
       Database Password:   <Mandatory>
       JNDI name for the Geocode datasource: <Mandatory>

11. Mapviewer Configuration
       Deploy mapviewer locally on this instance:  <Mandatory>
       Location of mapviewer ear file:   <Mandatory>

12. Security Configuration
       Deploy only mobility web application:   <Mandatory>
        Allow Self Signed SSL Certificates: <Mandatory>
```

9. Choose the options for configuration and enter P to proceed with the installation.
10. Execute the following command:

    UNIX:

    ```
    cd <SPLEBASE>/runtime
    ksh ./ORS_postinstall.sh
    ```

    Windows:

    cd %SPLEBASE%\runtime

    ORS_postinstall.cmd

    Note: On UNIX, ensure that you have the proper execute permission on ORS_postinstall.sh

Installing the Oracle Utilities Mobile Workforce Management Application Component v2.2.0.1

This section describes how to install the application component of Oracle Utilities Mobile Workforce Management, including:

- **Copying and Decompressing Install Media**
- **Installing the Application Component**
- **Performing Post-Installation Tasks**

Copying and Decompressing Install Media

The Oracle Utilities Mobile Workforce Management installation file is delivered in jar format for both UNIX and Windows platforms.

To copy and decompress the install media, follow these steps:

1. Log in to the application server host as the administrator user ID (default cissys). This is the same user ID that was used to install the Oracle Utilities Application Framework.
2. Download the Oracle Utilities Mobile Workforce Management v2.2.0.1 Multiplatform from Oracle Software Delivery Cloud.
3. Create a <TEMPDIR> directory on the host server, which is independent of any current or other working Oracle Utilities Mobile Workforce Management application environment. This can be the same <TEMPDIR> used during the installation of the Oracle Utilities Application Framework.
4. Copy the file MWM-V2.2.0.1.0-MultiPlatform.jar in the delivered package to a <TEMPDIR> on your host server. If you are using FTP to transfer this file, remember to use the BINARY option for the FTP transfer.
5. Decompress the file:

   ```
   cd <TEMPDIR>
   jar -xvf MWM-V2.2.0.1.0-MultiPlatform.jar
   ```

   For Windows installations, include the location of the JDK in your path before you execute the jar command.

For both Unix and Windows platforms, a sub-directory named `MWM.V2.2.0.1.0` is created. The contents of the installation directory are identical for both platforms. The directory contains the install software for the application product.

Installing the Application Component

Follow the steps below to install Oracle Utilities Mobile Workforce Management application component:

1. Log in to the application server host as the administrator user ID (default cissys).
2. Change directory:

   ```
   cd <install_dir>/bin
   ```

   where <install_dir> is the location where the Oracle Utilities Mobile Workforce Management application component is installed.
3. Initialize the environment by running the appropriate command:

   UNIX:

   ```
   ./splenviron.sh -e <ENV NAME>
   ```

   Windows:

   ```
   splenviron.cmd -e <ENV NAME>
   ```
4. If the environment is running, stop it by running the appropriate command:

   UNIX:

   ```
   ./spl.sh stop
   ```

   Windows:

   ```
   spl.cmd stop
   ```
5. Change to the <TEMPDIR>/`MWM.V2.2.0.1.0` Directory.

6. Execute the install script:

   Note: On UNIX, ensure that you have the proper execute permission on install.sh.

   UNIX:

   ```
   ksh ./install.sh
   ```

   Windows:

   ```
   install.cmd
   ```

Once the install has finished successfully, execute post installation steps as described in the following section, Performing Post-Installation Tasks.

Performing Post-Installation Tasks

Run the post-install script

1. Change directory.
   cd <install_dir>/bin

where <install_dir> is the location where the Oracle Utilities Mobile Workforce Management application component is installed.

2. Initialize the environment by running the appropriate command:
   UNIX:

   ```
   ./splenviron.sh -e <ENV NAME>
   ```

   Windows:

   ```
   splenviron.cmd -e <ENV NAME>
   ```

3. Run the post-installation script:
   UNIX:

   ```
   $cd $SPLEBASE/runtime
   $ksh ./cdfDeploy.sh
   ```

   Note: If you get permission errors while running this script, run the following command to set the permissions, then repeat the above step.

   ```
   chmod 755 cdfDeploy.sh
   ```

   Windows:

   ```
   C:\> cd %SPLEBASE%\runtime
   C:\> cdfDeploy.cmd
   ```

Generate the appviewer

1. Generate the appviewer by following the steps below:

   UNIX:

   ```
   $cd $SPLEBASE/bin
   ksh ./genappvieweritems.sh
   ```

   Windows:

   ```
   C:\> cd %SPLEBASE%\bin
   C:\> genappvieweritems.cmd
   ```

After the Installation

After you complete the installation, verify the following:

1. Verify installation logs created under decompressed installer location for any errors.
2. Confirm installation logs do not contain any errors.
3. Confirm all the configurations are correct. Refer to Appendix Installation and Configuration Worksheets for details.
4. Confirm that the database is ready.
5. Generate appviewer.
6. Start the application server. For instructions, refer to Appendix Common Maintenance Activities.
7. To operate the application, refer to the following section.

Operating the Application

At this point your installation and custom integration process is complete. Be sure to read the Oracle Utilities Mobile Workforce Management *Administration Guide* for more information on further configuring and operating the system.

Installing Service Packs and Patches

Periodically, Oracle Utilities releases a service pack of single fixes for its products. A service pack is an update to an existing release that includes solutions to known problems and other product enhancements. A service pack is not a replacement for an installation, but a pack consisting of a collection of changes and additions for it. The service pack may include changes to be applied to the application server, the database, or both. The service pack includes all files necessary for installing the collection of changes, including installation instructions.

Between services packs, Oracle Utilities releases patches to fix individual bugs. For information on installing patches, refer to knowledge base article ID 974985.1 on My Oracle Support.

Service packs and patches can be downloaded from My Oracle Support (https://support.oracle.com/)

Chapter 8

Installing the Mobile Client

This chapter describes how to install the Mobile Client for Oracle Utilities Mobile Workforce Management. It is intended for implementers and system administrators responsible for configuration and initial setup of the mobile application.

This chapter includes:

Installing the Mobile Client on Windows

This section describes how to install the Oracle Utilities Mobile Workforce Management Mobile Client Runtime on Windows Platforms. This section includes:

Installing on Windows 7

1. Extract OracleMWM.msi from ORS-V2.2.0.1.0-Mobile-Client-Win.zip and copy it to a temporary directory. Double click the OracleMWM.msi file to start the installation process.
2. Click **Next** to proceed with the installation of Oracle Utilities Mobile Workforce Management 2.2.0.1 Mobile Client on your machine.
3. Select a folder/hard drive location to install the application to.
4. Click **Next** to proceed with the installation.
5. Click **Close** after the installation is successful.

   The mobile client application is now accessible from shortcuts created on the Desktop or Start Menu.

Installing on Windows Embedded

1. Extract OracleMWM.CAB from ORS-V2.2.0.1.0-Mobile-Client-WinMobile.zip and copy it to a temporary directory on the mobile device. Tap the OracleMWM.CAB file to start the installation process.
2. If prompted, select **Device** as the location to be installed.
3. Click **Close** after the installation is successful.
4. After completing the MCP installation, delete the CAB file (OracleMWM.CAB) and reboot the mobile device.
   The mobile client application is now accessible from shortcuts created on the **Start > Programs** menu.

Mobile Device Registration

The mobile device needs to be registered with the Oracle Utilities Mobile Workforce Management application server before it can start using the application features. Ensure that the Oracle Utilities Mobile Workforce Management application is installed and running before registering the mobile device.

Please refer to the *Oracle Utilities Mobile Workforce ManagementMobile Application User Guide* for the steps to register a device with the server.

Uninstalling the Mobile Client

Follow these procedures to remove the Mobile Client from Windows 7.

Uninstalling from Windows 7

1. Ensure that all the data is synchronized on the server.
2. Go to **Start Menu -> Control Panel**.
3. Open **Add or Remove Programs.**
4. Select Oracle Utilities Mobile Workforce Management 2.2.0.1 from the programs list and click **Remove**.
5. Click **Yes** to confirm the removal of the mobile client.
6. Click **Close** after the mobile client has been removed.

Uninstalling from Windows Embedded

1. Ensure that all the data is synchronized on the server.
2. Go to Start **Menu** -> **Settings** -> **System** tab
3. Open **Remove Programs**.
4. Select Oracle Utilities Mobile Workforce Management 2.2.0.1 from the programs list and click **Remove**.
5. Click **Yes** to confirm the removal of the mobile client.
6. Click **Close** after the mobile client has been removed.

Installing the Mobile Client on Android

This section describes how to install the Android Mobile Client Platform (Android MCP) for Oracle Utilities Mobile Workforce Management. It is intended for implementers and system administrators responsible for configuration and initial setup of the mobile application. This section includes:

Overview of the Android MCP

Android MCP provides the same runtime functionality as the Windows Embedded MCP. This functionality includes:

- **RSI:** Communication between the device and the server
- **GPS:** GPS services such as location logging and transferring logs to the server
- **BO Processing:** Business Object Functionality
- **BS Processing:** Business Service Functionality
- **SS Processing:** Service Script Functionality
- **Authentication:** Login processing
- **UI Rendering:** User Interface Processing
- **Logging:** Log File Support

There may be differences in UI layout or JavaScript support due to the different browser component provided by the Android platform. There will also be normal differences in the user interface behavior that are specific to Android applications.

Installing the Android MCP

The Android MCP is delivered as a standard Android APK file. This APK will need to be installed to the Android device in one of the following ways.

- Using SD Card
- Downloading the file from a hosted web server
- Using device management software for Android
- Using Android SDK (Advanced only)

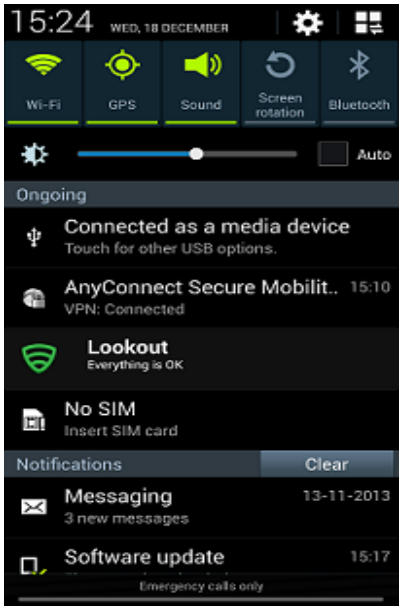
This section describes the SD Card method only.

> **Note:** You should uninstall previous versions of the Android MCP before installing a new version.

Installing the MCP Using the SD Card Method

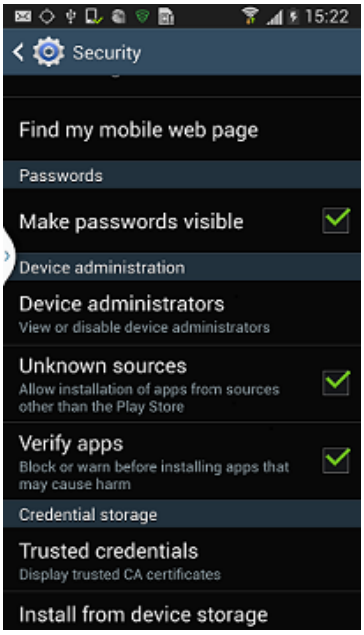
To Install the Android Mcp Using the Sd Card Method

1. Extract OracleMWM.apk from the ORS-V2.2.0.1.0-Mobile-Client-Android.zip file and copy it to a temporary directory.
2. Connect the Android device to a desktop or laptop computer as a Media Drive.

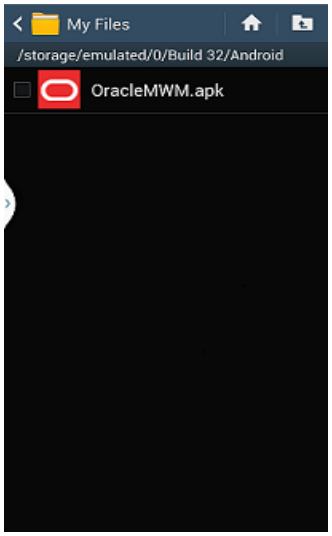


3. Copy the OracleMWM.apk file to the removable disk (select **My Computer** for the drive letter).
4. Disconnect the device from the desktop or laptop, or choose the **Charge only** connection type.
5. Verify that non-Market applications can be installed.

   Open **Settings -> Applications** and select **Unknown sources.**



6. Use a file explorer on the device such as ASTRO or File Expert (which can be downloaded from Android Market) to locate the APK file on the SD card. Launch the file.



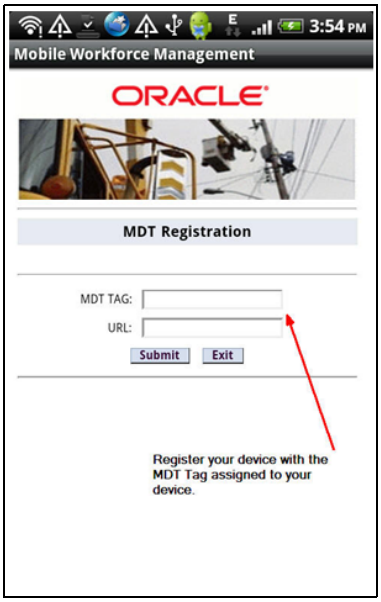
7. Confirm the installation by clicking **Install**.
8. The application will now be installed.
9. After the application is installed, click **Done.**

Launching Android MCP

To Launch the Android MCP on Your Device

1. Under All apps, locate the Oracle MWM icon.
2. Launch the application to register the device and download a deployment.

   Note: Ensure that your device has data or WIFI connectivity.



Launching Android MCP Tools

The MCP Tools application provides functionality to import and export the MCP data folder to and from the SD card on the Android device. This can be very useful in debugging issues or for loading test data to the device.

To Launch the Android MCP Tools Application on Your Device

1. Under All apps, locate the Oracle MWM Tools icon.
2. Launch the application to access import and export functionality.
   - **Export Data** exports the application's data folder to SD Card.
   - **Import Data** imports data from SD card's /MWMApp/ folder into the application's data folder.

Uninstalling Android MCP

To Uninstall the Android MCP

1. Open **Settings, Applications, Manage Applications** and click the Oracle MWM application.
2. Click **Uninstall** to remove Android MCP from your device. Do not select **Clear data.**

Chapter 9

Additional Tasks

This chapter describes tasks that should be completed after installing Oracle Utilities Mobile Workforce Management including:

- Configuring MapViewer
- Oracle Location Services (eLocation)
- Configuring the Environment for Oracle BPEL Server
- Configuring the Scheduler
- Configuring Business Service SDK
- WebLogic Production Server Considerations
- Building Javadoc Indexes
- Configuring the Environment for Batch Processing
- Customizing Configuration Files
- Customizing the Logo
- Generating the Application Viewer
- Installation Verification Checklist
- Accessing the Application

Configuring MapViewer

This section describes how to configure a MapViewer data source.

Before you can configure a MapViewer data source you must:

- Install Oracle Fusion Middleware MapViewer 11.1.1.5.1.
- Create and configure the database.

To Configure a MapViewer Data Source

1. Go to the MapViewer Application:

   Example: http://<host>:<port>/mapviewer

   Where <host> is the host name or IP address of the system where MapViewer is deployed and <port> is the port of the WebLogic instance. If MapViewer is deployed on the same WebLogic instance then this is same as the application port.

2. Click the **Admin** button to log in as an administrator to MapViewer.
3. Click **Manage Map Viewer**, then **Configuration.**
4. Modify mapViewerConfig.xml using the Config text area.

   a. Provide the data source details for the cisadm and NAVTEQ_UTIL data sources. The following code sample contains example data sources. Change the properties according to your data sources:

   ```
   <!-(Sample datasource configuration)
     <map_data_source name="mvdemo"
         jdbc_host="db1.my_corp.com"
         jdbc_sid="orcl"
         jdbc_port="1521"
         jdbc_user="scott"
         jdbc_password="!tiger"
         jdbc_mode="thin"
         number_of_mappers="3"
         allow_jdbc_theme_based_foi="false"
      />
   ```

   b. If the secure protocol (HTTPS) is enabled for the MapViewer URL, add the following to the **Map Image Settings** section of mapViewerConfig.xml:

   ```
   <save_images_at file_prefix="omsmap"
         url="https:// <host>:<port>/mapviewer/images"
         path="../../images"
         life="0"
         recycle_interval="480"
   />
   ```

   Where <host> is the host name or IP address of the system where MapViewer is deployed and <port> is the port of the WebLogic instance.

5. Click **Save and Restart**.
6. To refresh the list of data sources, click **Manage Map Viewer**, then **Data sources.**
7. To confirm that the configuration is correct, click **Manage Map Tile Layers**.

Configuring MapViewer Security

When MapViewer is deployed on the same WebLogic instance as the application, follow these steps to configure MapViewer to share the security credentials of the application.

1. Add the following entry in the weblogic.xml file under <MAPVIEWER_EAR_DIR>/web.war/WEB-INF:

```
 <security-role-assignment>
    <role-name>cisusers</role-name>
    <principal-name>cisusers</principal-name>
</security-role-assignment>

<session-descriptor>
    <cookie-path>/mapviewer</cookie-path>
</session-descriptor>
```

2. Add the following entry in the web.xml file under <MAPVIEWER_EAR_DIR>/web.war/WEB-INF:

```
<security-role>
    <description>MapViewer users</description>
    <role-name>cisusers</role-name>
</security-role>
```

Oracle Location Services (eLocation)

This section describes how to configure and deploy Oracle Location Services (eLocation) for use by Oracle Utilities Mobile Workforce Management. This is required if your implementation chooses to use eLocation for routing data instead of Oracle Real-Time Scheduler.

The installation of eLocation requires the following components

- eLocation Dispatcher Servlet (elocation.ear)
- Oracle RouteServer (routeserver.ear)
- Oracle Geocoder (geocoder.ear)

To Configure eLocation

1. Download the elocation.ear file.

   To download the latest elocation.ear, log on to My Oracle Support at support.oracle.com and download Patch 13446793, "SPATIAL elocation for Mobile Workforce Management Release 12."

   Oracle RouteServer and Oracle Geocoder are included with the Oracle 11g database in the following directory: ORACLE_HOME\md\jlib

2. When eLocation is deployed on the same WebLogic instance as the application, follow these steps to configure eLocation to share the security credentials of the application.

   a. Add the following entry in the weblogic.xml file, located under <ELOCATION_EAR_DIR>/web.war/WEB-INF:

```
<security-role-assignment>
<role-name>cisusers</role-name>
<principal-name>cisusers</principal-name>
</security-role-assignment>
```

   b. Add the following entry in the web.xml file, located under <ELOCATION_EAR_DIR>/web.war/ WEB-INF:

```
<security-role>
```

```
<description>SPL users</description>
<role-name>cisusers</role-name>
</security-role>
```

3. Deploy and configure the routing engine and the geocoding service as described in the Oracle Spatial Developer's Guide 11g.
4. Deploy the eLocation EAR manually using the WebLogic console. Open the eLocation URL at: http://<environment>:<port>/elocation/admin.jsp

   The application asks for login credentials because the web.xml and weblogic.xml files have changed. Once the login is successful, you will see the Oracle eLocation Administration page.
5. To modify the Mapper Cluster, click **Edit** on the component URL. Specify the following value:

   <http://<environment>:<port>/mapviewer/omsserver>.

   Make sure that MapViewer is also deployed in the environment.
6. To modify the Geocoder Cluster, click **Edit** on the component URL. Specify the following value:

   < http://elocation.oracle.com/geocoder/gcserver>
7. To modify the Router Cluster, click **Edit** on the component URL. Specify the following value:

   http://elocation.oracle.com/routeserver/servlet/RouteServerServlet
8. Click **Apply Changes.**

Configuring the Environment for Oracle BPEL Server

Oracle BPEL Process Manager is optional software that can be used by Oracle Utilities Mobile Workforce Management for sending SMS messages. Oracle Utilities Mobile Workforce Management can be configured to send SMS via different third party gateway/SMS providers. The ability to send SMS using the Oracle BPEL Server is already provided in the base application

This section describes how to configure the Oracle Utilities Mobile Workforce Management to interact with Oracle BPEL Server.

Before configuring Oracle Utilities Mobile Workforce Management to interact with BPEL Server you must:

- Install Oracle BPEL Server.
- Configure Oracle Utilities Mobile Workforce Management with a process that receives phone numbers and messages deployed on the BPEL server.

Oracle Utilities Mobile Workforce Management uses the algorithm type F1-SMSSEND to connect to the Oracle BPEL server.

The following information will be required to set up the application to work with the BPEL server:

Option Type	Detail Description
Operation Name	The 'operation' or the method name of the SMS Web service
Password	The password for the Web service
Port Type	The 'port type' name of the SMS Web service

Option Type	Detail Description
Server URL	The url of the BPEL/SMS gateway server
Service Name	The 'service' name of the SMS Server
User Name	The 'user name' for authentication to the Web service

Configuring the Scheduler

Note: From Oracle Utilities Mobile Workforce Management v2.2.0 onwards, the location of these scheduler log files can no longer be configured from the online application. The scheduler log files are now written in the same location as the TPW and the batch files, under $SPLOUTPUT.

This section describes how to configure a scheduler as a standalone application on the TPW JVM.

After installing Oracle Utilities Mobile Workforce Management v2.2.0.1, please verify that the below step1 and step 2 changes are available. If they are not available, follow the below steps:

1. If you enabled the WebLogic Console Port Number, then the WebLogic console is accessed by https admin channel by default. Specify "t3s://<host>:<admin channel port>" as the WebLogic Server URL in menu item 8, JMS Configurations. Otherwise, specify "t3://<host>:<web server port>".

   See appendix Application Framework Installation and Configuration Worksheets for more information.

2. Configure trust keystore as WebLogic Additional Stop Argument using menu item 52 Advanced Web Application Configuration. See appendix Application Framework Installation and Configuration Worksheets for more information.

3. Run the initialSetup script.

   UNIX:

   ```
   $ cd $SPLEBASE/bin
   $ ksh ./initialSetup.sh
   ```

   Windows:

   ```
   cd %SPLEBASE%\bin
   initialSetup.cmd
   ```

4. Run the standalone batch script. For example

   UNIX:

   ```
   $ cd $SPLEBASE/bin
   $ nohup batchscheduler.sh <Node_ID> > /tmp/batchscheduler.log 2>&1
   &
   ```

   Windows:

   ```
   cd %SPLEBASE%\bin
   batchscheduler.cmd <Node_ID>
   ```

   Notes:

   - The application domain node ID must be unique value across the environment. This value is used for a scheduler running from Threadpoolworker.
   - The scheduler should be disabled from the online application. The batch scheduler program invokes Threadpoolworker so there is no need to start Threadpoolworker separately.

- The NodeID is located in the threadpoolworker logs under $SPLOUTPUT. You can locate this value by searching for "NODEID".
- To locate the NodeID in the threadpoolworker process, search for the string "-Dspl.mwm.scheduler.nodeId="

You will get multicast issues in an AIX environment if you start the batch scheduler and the multicast listener is not enabled. The workaround for this is to enable a unicast listener. See the Oracle Utilities Mobile Workforce Management*Batch Server Administration Guide* for more details.

To Enable the Unicast Listener

1. Copy the file $SPLEBASE/splapp/standalone/config/tangosol-coherence-override.xml to tangosol-coherence-override.xml.org
2. Remove the following code in the tangosol-coherence-override.xml file:

```
<multicast-listener>
      ---------------------
      ---------------------
      </multicast-listener>
```

3. Add the following code after the </member-identity> tag in the tangosol-coherence-override.xml file:

```
<unicast-listener>
<well-known-addresses>
<socket-address id="0">
<address system-property=
"tangosol.coherence.wka">COHERENCE_CLUSTER_HOSTNAME</address>
<port system-property=
"tangosol.coherence.wka.port">COHERENCE_CLUSTER_PORT</port>
</socket-address>
</well-known-addresses>
<address system- property=
"tangosol.coherence.localhost">COHERENCE_CLUSTER_HOSTNAME
</address>
<port system-property=
"tangosol.coherence.localport">COHERENCE_CLUSTER_PORT</port>
<port-auto-adjust system-property=
"tangosol.coherence.localport.adjust">true</port-auto-adjust>
</unicast-listener>
```

4. Select the menu item 5 and General Configuration Options. Use the completed General Configuration Options Worksheet to complete this step. See appendix Application Framework Installation and Configuration Worksheets for more information.
5. Run initialSetup and start the batch scheduler.
   See the Appendix titled "Common Maintenance Activities" for additional information on common batch scheduler tasks.

Configuring the Batch Scheduler for Different Servers

This section describes how to configure the batch scheduler to point to a different application server, or "target server". The target server has to be installed following the same steps as described for installing Oracle Utilities Mobile Workforce Management. These steps can also be followed to run the batch scheduler(s) from a different server than the target server. In the following steps, substitute the appropriate values for the environment.

To Configure the Scheduler to Point to a Different Target Server

1. Install Oracle Real-Time Scheduler application.

2. Stop the environment if running.

   UNIX:

   ```
   $SPLEBASE/bin/spl.sh stop
   ```

   Windows:

   ```
   %SPLEBASE%\bin\spl.cmd stop
   ```

3. In the application menu, select the menu item 8 to configure JMS settings. Enter the menu items for the target server. Use the completed JMS Configuration Worksheet to assist you with this step. See appendix Application Framework Installation and Configuration Worksheets for more information for more information.

4. Select the menu item 9 to specify ORS environment description and enter the menu items for the target server. Use the completed ORS Environment Description Worksheet to complete this step. See appendix Application Framework Installation and Configuration Worksheets for more information for more information.

5. Enter the WebLogic Console Port Number for the target server using menu item 52 Advanced Web Application Configuration. See appendix Application Framework Installation and Configuration Worksheets for more information for more information.

6. Run the initialSetup script:

   UNIX:

   ```
   $SPLEBASE/initialSetup.sh
   ```

   Windows:

   ```
   %SPLEBASE%\initialSetup.cmd
   ```

7. Run the standalone batch scheduler script, which now points to the target server. See Appendix Common Maintenance Activities for details on how to start and stop the batch scheduler.

Configuring Business Service SDK

For details about configuring business service SDK, see the *Configuration Guide*.

WebLogic Production Server Considerations

By default, WebLogic Server is configured with two keystores, to be used for development only. These keystores should not be used in a production environment.

Configuring Identity and Trust

Private keys, digital certificates, and trusted certificate authority certificates establish and verify identity and trust in the WebLogic Server environment. WebLogic Server is configured with a default identity keystore DemoIdentity.jks and a default trust keystore DemoTrust.jks. In addition, WebLogic Server trusts the certificate authorities in the cacerts file in the JDK. This default keystore configuration is appropriate for testing and development purposes. However, these keystores should not be used in a production environment.

To configure identity and trust for a server:

1. Obtain digital certificates, private keys, and trusted CA certificates from the CertGen utility, Sun Microsystem's keytool utility, or a reputable vendor such as Entrust or Verisign. You can also use the digital certificates, private keys, and trusted CA certificates provided by the WebLogic Server kit. The demonstration digital certificates, private keys, and trusted CA certificates should be used in a development environment only.
2. Store the private keys, digital certificates, and trusted CA certificates. Private keys and trusted CA certificates are stored in a keystore.
3. Configure the identity and trust keystores for a WebLogic Server instance on the Configuration: Keystores page.

By default, WebLogic Server is configured with two keystores, to be used for development only.

- DemoIdentity.jks: Contains a demonstration private key for WebLogic Server. This keystore establishes an identity for WebLogic Server.
- DemoTrust.jks: Contains a list of certificate authorities trusted by WebLogic Server. This keystore establishes trust for WebLogic Server.

These keystores are located in the WL_HOME\server\lib directory and the JAVA_HOME\jre\lib\security directory. For testing and development purposes, the keystore configuration is complete. Use the steps in this section to configure identity and trust keystores for production use.

Refer to the WebLogic documentation to configure identity and trust keystores for production use (Secure servers and resources > Configure identity and trust/Set up SSL)

> **Note:** Depending on your choice of implementation you may need to change some configuration files. These files are managed by templates and will be overwritten if the procedures documented in "Customizing Configuration Files" are not followed.

Building Javadoc Indexes

The following script rebuilds the Javadocs indexes in the application viewer java module. This is necessary after customer modifications (CM) have been applied to an environment. You need to run this script only if the customer modification includes Java code.)

Windows:

```
%SPLEBASE%\bin\buildJavadocsIndex.cmd
```

UNIX:

```
ksh $SPLEBASE/bin/buildJavadocsIndex.sh
```

Configuring the Environment for Batch Processing

See the Oracle Utilities Mobile Workforce Management*Batch Server Administration Guide* for information on configuring the environment for batch processing.

Customizing Configuration Files

You may wish to make customer modifications to various configuration files. To do so, you should locate the configuration file you want to customize and edit it manually.

Configuration files are generated from delivered templates in the Oracle Utilities installation and are populated by values entered by the installation utility during the configuration process. In future upgrades of Oracle Utilities application software versions, some templates may be changed to reflect new software version requirements. In this case, the upgrade process will back up your customized configuration file and will regenerate a configuration file based on a new template. You will need to review the new configuration file and apply your customized changes back if still applicable for the new version.

For configuration files that are located in a web application (for example, web.xml, hibernate.properties), of the web application during installation process, you will not be able to edit the configuration files directly.

You will need to follow the procedure:

- Locate the configuration file you want to customize in the directory $SPLEBASE/etc/conf.
- Apply your changes.
- Update application war file with the latest changes by executing the following command:

  Unix:

  ```
  $SPLEBASE/bin/initialSetup.sh
  ```

  Windows:

  ```
  %SPLEBASE%\bin\initialSetup.cmd
  ```

Customizing the Logo

To replace the Oracle Utilities logo on the main menu with another image, put the new image <customer_logo_file>.gif file into the directory $SPLEBASE/etc/conf/root/cm and create a new "External" Navigation Key called CM_logoImage. To do that, run the Oracle Utilities application from the browser with the parameters: http://<hostname>:<port>/cis.jsp?utilities=true&tools=true. From the Admin menu, select Navigation Key. Add the above Navigation Key with its corresponding URL Override path. The syntax for the URL path is:

Windows:

http://<host name>:<port>/<Web Context>/cm/<customer_logo_file>.gif

UNIX:

http://<host name>:<port>/<Web Context>/cm/<customer_logo_file>.gif.

The root directory may be deployed in war file format for runtime environment (SPLApp.war). Use provided utilities to incorporate your cm directory into SPLApp.war file.

Generating the Application Viewer

You may extend application viewer capabilities within an environment by generating additional items. The additional items that can be generated include algorithm type and related algorithm information, maintenance object information and data dictionary information.

To Generate the Additional Items In the Application Viewer:

1. Shut down the environment.
2. Initialize a command shell:

   The scripts that are provided with the system need to be run from a shell prompt on the machine that you installed the application on. Before such scripts can be run the shell must be "initialized" by running the splenviron script provided with the system.

   Unix:
   You will need to logon to your UNIX box as the Oracle Utilities Administrator (default cissys) and open a shell prompt. In the following example you should replace the variables

   $SPLEBASE with the Full directory name that you installed the application into

   and

   $SPLENVIRON with the name you gave to the environment at installation time.

   To initialize the environment enter:

   $SPLEBASE/bin/splenviron.sh -e $SPLENVIRON

   For example:

   ```
   /ouaf/TEST_ENVIRON1/bin/splenviron.sh -e TEST_ENVIRON1
   ```

   Windows:
   The command window should be opened on the Windows server that you installed the application on.

   In the below example you should replace the following variables:

   - **%SPLEBASE% :** The Full directory name that you installed the application into
   - **%SPLENVIRON%:** The name you gave to the environment at installation time.

   To initialize the environment type the following in your command prompt:

   %SPLEBASE%\bin\splenviron.cmd -e %SPLENVIRON%

   For example:

   ```
   D:\ouaf\TEST_ENVIRON1\bin\splenviron.cmd -e TEST_ENVIRON1
   ```

3. Execute the following script to generate all information.

   UNIX:
   ```
   ksh $SPLEBASE/bin/genappvieweritems.sh
   ```

   Windows:
   ```
   %SPLEBASE%\bin\genappvieweritems.cmd
   ```

4. Restart your application

Installation Verification Checklist

After you complete the installation, verify the following:

1. Verify installation logs created under decompressed installer location for any errors.
2. Confirm installation logs do not contain any errors.
3. Confirm all the configurations are correct. Refer to Installation and Configuration Worksheets for details.
4. Confirm that the database is ready.
5. Start the application server. For instructions, refer to Appendix Common Maintenance Activities.
6. Verify Application deployment status.

- Login to Weblogic Console.
- Click on **Deployment** link.
- Verify that the following application deployments are Active
    - SPLService
    - SPLWeb
    - SPLAdf
    - Mapviewer

7. Verify the Data Source Configuration.
8. Confirm that the map file (mal) exists in the required location.
9. Ensure that ulimit is set (applicable for non-Windows platforms).
10. Ensure that the geocode algorithm is set.
11. To operate the application, refer to the next section.

Accessing the Application

1. Start up the environment by running the following command:

   UNIX:

   ```
   spl.sh start
   ```
   Windows:

   ```
   spl.cmd start
   ```
2. Follow the messages on the screen along with the logs in $SPLSYSTEMLOGS directory to ensure that the environment was started successfully.
3. If the startup failed, identify the problem by reviewing the log files. Resolve any issues before attempting to restart the environment.
4. Once the application is up and running (can be viewed from logs file) then try to access the application via below URL

   http://<host name>:<port name>/<WebContext>

Appendix A

Installation and Configuration Worksheets

Application Framework Installation and Configuration Worksheets

Third Party Software Configuration

```
**********************************
* Environment Installation Options *
**********************************
1. Third Party Software Configuration
       Oracle Client Home Directory:
       Web Java Home Directory:
       Child JVM Home Directory:
       COBOL Home Directory:
       Hibernate JAR Directory:
       ONS JAR Directory:
       Database Home Directory:
       Web Application Server Home Directory:
       ADF Home Directory:
       OIM OAM Enabled Environment:
```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Oracle Client Home Directory	ORACLE_CLIENT_HOME***	The home directory of the Oracle Client. The application will use the Perl included under this Oracle Client. Example Location: /oracle/client/product/11.2.0.3	
Web Java Home Directory	JAVA_HOME***	Java home that will be used by the web application server. Example Location: /ouaf/java/jdk1.6.0_65	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Child JVM Home Directory	CHILD_JVM_JAVA_HOME	Java home that will be used by the child java process that handles COBOL related requests. Example Location: /ouaf/java/jdk1.6.0_65	
COBOL Home Directory	COBDIR	COBOL installation location directory. Example Location: /opt/SPLcobAS51WP6	
Hibernate JAR Directory	HIBERNATE_JAR_DIR***	Location on the disk where the hibernate410FINAL.jar is installed.	
*ONS JAR Directory	ONS_JAR_DIR	Location on the disk where the ons-11.2.0.3.jar file is installed. **Required for Oracle RAC installation. See the Server Administration Guide for more information.	
Database Home Directory	DATABASE_HOME***	Location on the disk where database client is installed for your particular installation. Example Location for Oracle Database: /oracle/client/product/11.2.0.3 Note: This value will be the same as the previously entered for Oracle.	
Web Application Server Home Directory	WEB_SERVER_HOME***	Location on the disk where the application server is installed. Example Location: WebLogic: /ouaf/middleware/wlserver_10.3 To validate the home directory, check if the following jar files exist in the appropriate path: $WEB_SERVER_HOME/server/lib/weblogic.jar %WEB_SERVER_HOME%\server\lib\weblogic.jar	
* ADF Home Directory	ADF_HOME***	Location on the disk where ADF is installed. Example Location: /ouaf/jdev11_1_1_6	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
OIM OAM Enabled Environment	OPEN_SPML_ENABLED_ENV	Denotes if an environment will be integrating with Oracle Identity Manager for user propagation. Valid values: true false Defaulted value: false	

* Denotes optional Menu Options that may be required for the product installation and variables.

** In order to activate the RAC FCF, the application needs the external ons.jar file, version 11.2.0.2. This ons.jar is located under the Oracle Database Software 11.2.0.3, at the following path:

`$ORACLE_HOME/opmn/lib/ons.jar`

The ons.jar should be copied to the Application Server. During the OUAF installation the relevant option should be populated with the folder location of the ons.jar.

Environment Installation Options

```
50. Environment Installation Options
       Environment Mount Point:
       Log Files Mount Point:
       Environment Name:
       Database Type:
       Web Application Server Type:
       Install Application Viewer Module:
```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Environment Mount Point	<SPLDIR>***	The mount point into which the application is installed. For example: /ouaf for UNIX and C:\ouaf for Windows. This mount point MUST exist and the administrator user ID MUST be able to write to this directory. (This is the user ID that is created specifically to administer the environments; the default is cissys). The installation sets permissions on all subdirectories installed under this directory. See <SPLENVIRON> below for more information on how this mount point is used.	
Log File Mount Point	<SPLDIROUT>***	A mount point that will contain any application output or application logs. Example value is /ouaf/sploutput for UNIX installation or C:\ouaf\sploutput for Windows. This mount point MUST exist and the administrator user ID MUST be able to write to this directory. (This is the user ID that is created specifically to administer the environments; the default is cissys). For each environment initialized, the application logs will be written to the directory <SPLDIROUT>/<SPLENVIRON> Note: Later in the installation the splenviron.sh (splenviron.cmd) script will set the $SPLOUTPUT (%SPLOUTPUT%) environment variable to point to <SPLDIROUT>/<SPLENVIRON>	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Environment Name	<SPLENVIRON>***	A descriptive name to be used as both a directory name under the mount point <SPLDIR> and an environment descriptor. This value typically identifies the purpose of the environment. For example, DEV01 or CONV. On installation a directory <SPLDIR>/<SPLENVIRON> is created, under which the Oracle Utilities Application Framework and Oracle Utilities Mobile Workforce Management software resides. When multiple environments are set up on the machine you will typically have directories such as: /ouaf/DEV01/.... /ouaf/CONV/.... Each of these contains a complete version of the Oracle Utilities Application Framework and Oracle Utilities Mobile Workforce Management. Note: Later in the installation process, the splenviron.sh (splenviron.cmd) script will set $SPLEBASE (%SPLEBASE%) environment variable to point to <SPLDIR>/<SPLENVIRON>	
Database Type	<CMPDB>***	Type of a database to connect an environment to. Valid values: oracle: Oracle Defaulted value: oracle Note: Not all database types are supported on all platforms; refer to the Supported Platforms section for details.	oracle
Web Application Server Type	<SPLWAS>***	A web application server for the environment to be used. The following value must be selected: Valid values: WLS: WebLogic WAS: WebSphere WASND: WebSphere ND Note: Not all web application servers are supported on all platforms; refer to Supported Platforms section for details.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Installation Application Viewer Module	<WEB_ISAPPVIEWER> ***	Denotes if the Application Viewer Web Module will be installed in the environment. When this value is set to false the application viewer will not be accessible in the environment. Valid values: true: Application Viewer module will be installed. false: Application Viewer module will not be installed. Defaulted value: true Note: When the value of false is selected, the Application Viewer will only be installed at a later date by a complete reinstall of the application.	

Environment Description

```
1. Environment Description
       Environment Description:
```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Environment Description	DESC***	This is a free form text field to describe the purpose of the environment.	

WebLogic Business Application Server Configuration

The WebLogic parameters below and in the worksheet are for a WebLogic installation.

```
2. Business Application Server Configuration
      Business Server Host:                              <machine_name>
      WebLogic Server Name:                                myserver
      Business Server Application Name:                    SPLService
      MPL Admin Port Number:
      MPL Automatic startup:                               false
```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Business Server Host	BSN_WLHOST***	The host name on which business application server resides. Default value: <current server name>	
WebLogic Server Name	BSN_WLS_SVRNAME ***	The name of the WebLogic server where the business application resides. Default value: myserver Note: If there is not a previously created WebLogic server, take the default value of "myserver".	
Business Server Application Name	BSN_APP***	The name of the business application server. Default value: SPLService	
MPL Admin Port number	MPLADMINPORT	The port number for the Multi Purpose Listener (MPL) Admin Server. Example value: 6502	
MPL Automatic Startup	MPLSTART	Automatically starts the MPL Listener whenever environment starts. Default value: false	

WebLogic Web Application Server Configuration

The WebLogic parameters below and in the worksheet are for a WebLogic installation.

```
3. Web Application Server Configuration
      Web Server Host:                                  <machine_name>
      Web Server Port Number:
      Web Context Root:
      WebLogic JNDI User ID:
      WebLogic JNDI Password:
      WebLogic Admin System User ID:
      WebLogic Admin System Password:
      WebLogic Server Name:                              myserver
      Web Server Application Name:                       SPLWeb
      Application Admin User ID:
      Application Admin Password:
      Expanded Directories:                              true
      Application Viewer Module:                         true
```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Web Server Host	WEB_WLHOST***	The host name on which the web application server resides. Default value: <current server name>	
Web Server Port Number	WEB_WLPORT***	A unique port number within the system that will be assigned to the HTTP port. This is the port number that is used as a part of the client URL request to connect to the host. Example value: 6500	
Web Context Root	WEB_CONTEXT_ROOT***	A context root name that allows customers to run multiple instances of web application on the same server. Default value: ouaf	
WebLogic JNDI User ID	WEB_WLSYSUSER***	The user ID the application uses to connect to the EJB component through JNDI. This is the EJB container user ID. Note: The required value for an initial installation is "system". This is a security value.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
WebLogic JNDI Password	WEB_WLSYSPASS***	The password the application uses to connect to the EJB component through JNDI Note: The required value for an initial installation is "ouafadmin". This value will be saved in encrypted format. This is a security value.	
WebLogic Admin System User ID	WLS_WEB_WLSYSUSER***	The user ID to log in to the Oracle WebLogic console and to administer Oracle WebLogic. The Oracle WebLogic startup and stop script also utilizes this user ID Note: The installation utility will prompt you to enter "Y" to encrypt. For an initial installation, enter Y/y and specify the required value "system". This is a security value.	
WebLogic Admin System Password	WLS_WEB_WLSYSPASS	The password to login to Oracle WebLogic console and to administer Oracle WebLogic. The Oracle WebLogic startup and stop script also utilize this password. Note: The installation utility will prompt you to enter "Y" to encrypt. For an initial installation, enter Y/y, and specify the required value "ouafadmin". This is a security value.	
WebLogic Server Name	WEB_WLS_SVRNAME	The name of the WebLogic server where the web application resides. Default value: myserver Note: For an initial installation, use the default value of "myserver". .	
Web Server Application Name	WEB_APP	The name of the web application server. Default value: SPLWeb Note: For an initial installation, use the default value of "SPLWeb".	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Application Admin User ID	WEB_SPLUSER***	This is the default user ID to login to the application through the browser. Example value: SYSUSER Note: The required value for an initial installation is "SYSUSER". This value is also used in communication within the XAI application. This is a security value.	
Application Admin Userid Password	WEB_SPLPASS***	This is the password of the application admin user. Example value: sysuser00 Note: The required value for an initial installation is "sysuser00". This value will be saved in encrypted format This is a Security Value.	
Expanded Directories	WEB_ISEXPANDED***	When the value is "true" the web application will be deployed in exploded directory format (no WAR files). When the value is "false", the web application will be deployed in ear file format. Valid values: true: Environment expanded (no WAR files) false: Environment with WAR/EAR files Default value: false	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Application Viewer Module	WEB_ISAPPVIEWER***	When the value is "true" the application viewer will be deployed to the web server. When the value is "false", the application viewer will not be deployed to the web Server. Note: With either value the application viewer module will still be managed by the upgrade process. Note: When this value is set to false from the initial install menu you will not be able to change this value to true to re-enable the application viewer. Valid values: true: The application viewer module will be deployed to the web server false: The application viewer module will not be deployed to the web server Default value: true	

Database Configuration

```
4. Database Configuration
       Web Application Database User ID:
       Web Application Database Password:
       MPL Database User ID:
       MPL Database Password:
       XAI Database User ID:
       XAI Database Password:
       Batch Database User ID:
       Batch Database Password:
       Database Name
       Database Server:
       Database Port:
       ONS Server Configuration:
       Database Override Connection String:
      Oracle Client Character Set NLS_LANG:  AMERICAN_AMERICA.AL32UTF8
```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Web Application Database User ID	DBUSER***	The database user ID that has been configured on the database for the web application server connection. This is a security value.	
Web Application Database Password	DBPASS***	The database password that has been configured on the database for the web application connection. Note: This value will be saved in encrypted format. This is a security value.	
MPL Database User ID	MPL_DBUSER***	The database user ID that has been configured on the database for the MPL server connection. This is a security value.	
MPL Database Password	MPL_DBPASS***	The database password that has been configured on the database for the MPL server connection. Note: This value will be saved in encrypted format. This is a security value.	
XAI Database User ID	XAI_DBUSER***	The database user ID that has been configured on the database for the XAI server connection. This is a security value.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
XAI Database Password	XAI_DBPASS***	The database password that has been configured on the database for the XAI server connection. Note: This value will be saved in encrypted format. This is a security value.	
Batch Database User ID	BATCH_DBUSER***	The database user ID that has been configured on the database for the batch connection. This is a security value.	
Batch Database Password	BATCH_DBPASS***	The database password that has been configured on the database for the batch connection. Note: This value will be saved in encrypted format. This is a security value.	
Database Name	DBNAME***	The name of the database instance that the application will be connecting to.	
Database Server	DBSERVER***	Host name of the server where database resides.	
Database Port	DBPORT***	Database port number on the database server used for connecting to the database	
ONS Server Configuration	ONSCONFIG	ONS Server Configuration is required for Oracle RAC FCF. See the Server Administration Guide for more information. This is an optional value.	
Database Override Connection String	DB_OVERRIDE_CONNECTION	This connection string can be used to override the database information entered above for RAC installation. Set this string to override the standard database connection string, as entered above. See the Server Administration Guide for more information. This is an optional value.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Oracle Client Character Set NLS_LANG	NLS_LANG***	The Oracle Database Character Set. Select the Language and Territory that are in use in your country. Default value: AMERICAN_AMERICA.AL32UTF8	

General Configuration Options

Note: See the Oracle Utilities Mobile Workforce Management *Batch Server Administration Guide* for additional details on this configuration.

```
5. General Configuration Options
       Batch RMI Port:
       Batch Mode:                                          CLUSTERED
       Coherence Cluster Name:
       Coherence Cluster Address:
       Coherence Cluster Port:
       Coherence Cluster Mode:                              dev
```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Batch RMI Port	BATCH_RMI_PORT***	Unique port used by the Batch RMI	
Batch Mode	BATCH_MODE***	Valid values: CLUSTERED or DISTRIBUTED Default value: CLUSTERED Note: CLUSTERED is currently the only supported mode for production environments.	
Coherence Cluster Name	COHERENCE_CLUSTER_NAME***	Unique name for the batch CLUSTER Note: Value is required when batch mode is CLUSTERED.	
Coherence Cluster Address	COHERENCE_CLUSTER_ADDRESS***	Unique multicast address. Note: Value is required when batch mode is CLUSTERED.	
Coherence Cluster Port	COHERENCE_CLUSTER_PORT ***	Unique port for the batch CLUSTER Note: Value is required when batch mode is CLUSTERED.	
Coherence Cluster Mode	COHERENCE_CLUSTER_MODE***	Valid values: dev (Development) prod (Production) Default value: dev	

Advanced Menu Options

The advanced menu options are not available during installation. These options can be accessed after installation using the following commands:

Unix:

```
$SPLEBASE/bin/configureEnv.sh -a
```

Windows

```
%SPLEBASE%\bin\configureEnv.cmd -a
```

Advanced Environment Miscellaneous Configuration

```
50. Advanced Environment Miscellaneous Configuration
       Online JVM Batch Server Enabled:                  false
       Online JVM Batch Number of Threads:               5
       Online JVM Batch Scheduler Daemon Enabled:        false
       JMX Enablement System User ID:
       JMX Enablement System Password:
       RMI Port number for JMX Business:
       RMI Port number for JMX Web:
       GIS Service Running on the same Web Server:       true
       GIS Service URL:
       GIS WebLogic System User ID:
       GIS WebLogic System Password:
       Online Display Software Home:
```

Menu Option	Name Used in Documentation	Usage	Customer Value Install
WebSphere Deployment Manager Host Name	WASND_DMGR_HOST	WebSphere Deployment Manager Host name, this value is used for WebSphere ND, when connecting to the WebSphere Deployment Manager. Note: This value will only appear for WebSphere ND.	
Online JVM Batch Server Enabled	BATCHENABLED	When starting a web application server JVM, this property can be set to "true" to allow the on-line application server to also act as a batch worker in the grid. Default value: false Note: This functionality should only be used in low volume environments.	

Menu Option	Name Used in Documentation	Usage	Customer Value Install
Online JVM Batch Number of Threads	BATCHTHREADS	The maximum number of batch processing threads to be executed within a worker JVM when no explicit Distributed Thread Pool is specified. The "DEFAULT" distributed thread pool is used by the batch-scheduling daemon when it initiates processing on batch jobs (typically added via the online system) where no thread pool is specified). Default value: 5 Note: This will be only used and activated when BATCHENABLED is set to true.	
Online JVM Batch Scheduler Daemon Enabled	BATCHDAEMON	In a distributed batch environment, this property can be set to "true" to allow a worker JVM to host the batch scheduling daemon. The daemon accepts online batch submissions requests and automatically submits the work for them. Valid values: true, false Default value: false Note: This will be only used and activated when BATCHENABLED is set to true.	
JMX Enablement System User ID	BSN_JMX_SYSUSER	Example value: user This value is optional.	
JMX Enablement System Password	BSN_JMX_SYSPASS	Example value: admin Note: This value will be saved in encrypted format. This value is optional.	
RMI Port number for JMX Business	BSN_JMX_RMI_PORT_PERFORMACE	JMX Port for business application server monitoring. This needs to be set to an available port number on the machine. This value is optional.	

Menu Option	Name Used in Documentation	Usage	Customer Value Install
RMI Port number for JMX Web	WEB_JMX_RMI_PORT_PERFORMACE	JMX Port for web application server monitoring This needs to be an available port number for the environment running on the machine. This value is optional.	
GIS Service Running on the same Web Server	GIS	Geographical information (GEOCODING) - GIS Service running on the same web application server Valid values: true, false This value is optional.	
GIS Service URL	GIS_URL	This is the URL of the external web server. Note: This value will be only be used when GIS is set to true. This value is optional.	
GIS WebLogic System User ID	GIS_WLSYSUSER	GIS WebLogic System User ID Note: This value will be only be used when GIS is set to true. This value is optional.	
GIS WebLogic System Password	GIS_WLSYSPASS	GIS WebLogic System Password. Note: This value will be only be used when GIS is set to true. This value is optional.	
Online Display Software Home	ONLINE_DISPLAY_HOME	The location of the Online Display Software installation directory. This value is optional.	

Advanced Environment Memory Configuration

```
51. Advanced Environment Memory Configuration
       JVM Child Memory Allocation:                          512
       JVM Child Additional Options:
       Web Application Java Initial Heap Size:               1024
       Web Application Java Max Heap Size:                   1024
       Web Application Java Max Perm Size:                   700
       Web Application Additional Options:
       Ant Min Heap Size:                                    200
       Ant Max Heap Size:                                    800
       Ant Additional Options:
       Thread Pool Worker Java Min Heap Size:                512
       Thread Pool Worker Java Max Heap Size:                1024
       Thread Pool Worker Java Max Perm Size:                192
       Thread Pool Worker Additional Options:
       Additional Runtime Classpath:
       Release Cobol Thread Memory Options:
-Dspl.runtime.cobol.remote.releaseThreadMemoryAfterEachCall=...
```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
JVM Child Memory Allocation	JVMMEMORYARG	Heap size for the JVM Child. Default value: 512	
JVM Child Additional Options	JVM_ADDITIONAL_OPT	Additional JVM options that are passed to the Child JVM. Note: For WebLogic installation only.	
Web Application Java Initial Heap Size	WEB_MEMORY_OPT_MIN***	Initial heap size for the application server. Default value: 1024 Note: For WebLogic installation only. Recommended value is 2048.	
Web Application Java Max Heap Size	WEB_MEMORY_OPT_MAX***	Maximum heap size for the application server. Default value: 1024 Note: For WebLogic installation only. Recommended value is 2048.	
Web Application Java Max Perm Size	WEB_MEMORY_OPT_MAXPERMSIZE***	Maximum Perm Size for the application server. Default value: 700MB (Linux, Solaris) 700MB (Windows) Note: For WebLogic installation only.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Web Application Additional Options	WEB_ADDITIONAL_OPT***	Additional options that will be passed in to the web application server JVM. Note: For WebLogic installation only. Replace the value of SPLEBASE with the actual value. UNIX: -Xrs -XX:+ShowMessageBoxOnError -XX:+UseGCOverheadLimit -Doracle.security.jps.config=SPLEBASE/splapp/config/jps-config.xml -Ddomain.home=SPLEBASE/splapp Windows: -Xrs -XX:+ShowMessageBoxOnError -XX:+UseGCOverheadLimit -Doracle.security.jps.config=SPLEBASE/splapp/config/jps-config.xml -Ddomain.home=SPLEBASE/splapp AIX: -Xrs -XX:+ShowMessageBoxOnError -XX:+UseGCOverheadLimit -Doracle.security.jps.config=SPLEBASE/splapp/config/jps-config.xml -Ddomain.home=SPLEBASE/splapp -Djava.awt.headless=true	
Ant Min Heap Size	ANT_OPT_MIN	Minimum Heap Size passed to ANT JVM. Default value: 200	
Ant Max Heap Size	ANT_OPT_MAX	Maximum Heap Size passed to ANT JVM. Default value: 800	
Ant Additional Options	ANT_ADDITIONAL_OPT	Additional options that are passed into the ANT JVM.	
Thread Pool Worker Java Min Heap Size	BATCH_MEMORY_OPT_MIN	Minimum heap size passed to the Thread Pool Worker. Default value: 512 Recommended value is 1024.	
Thread Pool Worker Java Max Heap Size	BATCH_MEMORY_OPT_MAX	Maximum heap size passed to the Thread Pool Worker. Default value: 1024 Recommended value is 2048.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Thread Pool Worker Java Max Perm Size	BATCH_MEMORY_OPT_MAXPERMSIZE	Maximum perm size passed to the Thread Pool Worker Default value: 768	
Thread Pool Worker Additional Options	BATCH_MEMORY_ADDITIONAL_OPT	Additional Memory Options passed into the Thread Pool Worker. This is an optional free form field.	
Additional Runtime Classpath	ADDITIONAL_RUNTIME_CLASSPATH***	Additional Classpath Options passed in when starting the WebLogic JVM Note: For WebLogic installation only. Replace the value of SPLEBASE with the actual value. Unix: SPLEBASE/splapp/standalone/lib/commons-cli-1.1.jar:SPLEBASE/splapp/standalone/lib/log4j-1.2.15.jar:SPLEBASE/splapp/standalone/lib/ jakarta-regexp-1.5.jar Windows: SPLEBASE/splapp/standalone/lib/commons-cli-1.1.jar;SPLEBASE/splapp/standalone/lib/log4j-1.2.15.jar; SPLEBASE/splapp/standalone/lib/jakarta-regexp-1.5.jar	
Release Cobol Thread Memory Options	REL_CBL_THREAD_MEM	Allow for child JVMs to be optionally configured to release thread-bound memory when each thread is returned to its thread pool. This will increase the number of memory allocations and memory free calls performed by the Microfocus runtime. It will also lower the amount of C-heap memory consumed by child JVMs. Valid values: true, false Default value: false	

Advanced Web Application Configuration

```
52. Advanced Web Application Configuration
       WebLogic SSL Port Number: Weblogic
       Console Port Number: Weblogic
       Additional Stop Arguments: Batch
       Cluster URL:
       Strip HTML Comments:                                    false
       Authentication Login Page Type:                         FORM
       Application Viewer Form Login Page:      loginPage.jsp
       Application Viewer Form Login Error Page:formloginPage.jsp
       Help Form Login Page: loginPage.jsp: /loginPage.jsp
       Help Form Login Error Page: /formLoginError.jsp
       Web Form Login Page:                                 /loginPage.jsp
       Web Form Login Error Page:                    /formLoginError.jsp
       Web Security Role:                                      cisusers
       Web Principal Name:                                     cisusers
       Application Viewer Security Role:                      cisusers
       Application Viewer Principal Name:                     cisusers
       This is a development environment:                      false
       Preload All Pages on Startup:                           false
       Maximum Age of a Cache Entry for Text:                  28800
       Maximum Age of a Cache Entry for Images:                28800
       JSP Recompile Interval (s):                             43200
```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
WebLogic SSL Port Number:	WEB_WLSSPORT	The port number assigned to WebLogic Secure Sockets connection. This is the port number that is used for Secure Sockets connecting to the WebLogic server. The Secure Sockets implementation is disabled in the default configuration. For Production additional actions are required. Do NOT run Production with Demo certificates Refer to the WLS installation guide - Configuring Identity and Trust When this value is populated http will be disabled. Example value: 6501 Note: For WebLogic installation only. This value is optional. If you enable the SSL port, then the https port is enabled and http port is disabled by default.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
WebLogic Console Port Number	WLS_ADMIN_PORT	The port number assigned to WebLogic Console connection. This is the port number that is used for Secure Sockets connecting to the WebLogic Console server. Note: For WebLogic installation only. This value is optional.	
Batch Cluster URL	WEB_BATCH_CLUSTER_URL	Example: service:jmx:rmi:///jndi/rmi://[host]:[TPW JMX port]/oracle/ouaf/batchConnector	
WebLogic Additional Stop Arguments	ADDITIONAL_STOP_WEBLOGIC***	WebLogic Additional Stop Arguments This value is required when running the WebLogic Console Port Number and the Application using SSL. Example values: -Dweblogic.security.TrustKeyStore=DemoTrust -Dweblogic.security.TrustKeystoreType=CustomTrust Note: For Production additional actions are required. Do NOT run Production with Demo certificates Refer to the WLS installation guide - Configuring Identity and Trust Note: For WebLogic installation only. This is an optional value. If you enable the WebLogic console port number using the Advanced Web Application Configuration menu, then you should specify the WebLogic additional stop argument.	
StripHTMLComments: false	STRIP_HTML_COMMENTS	Stripping HTML (and JavaScript) comments will increase the security of the system. Default value: false Valid values: true, false	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
Authentication Login Page Type	WEB_WLAUTHMETHOD	Specifies which authentication mode should be used. To switch off OUAF Login Page enter: BASIC Valid values: FORM, BASIC Default value: FORM	
Application Viewer Form Login Page	WEB_APPVIEWER_FORM_LOGIN_PAGE	Specify the jsp file used to login into the application. Default value: /loginPage.jsp	
Application Viewer Form Login Error	WEB_APPVIEWER_FORM_LOGIN_ERROR_PAGE	Specify the jsp file used to login into the application. Default value: / formLoginError.jsp	
Help Form Login Page	WEB_HELP_FORM_LOGIN_PAGE	Specify the jsp file used to login into the application. Default value: /loginPage.jsp	
Help Form Login Error Page	WEB_HELP_FORM_LOGIN_ERROR_PAGE	Specify the jsp file used to login into the application. Default value: / formLoginError.jsp	
Web Form Login Page	WEB_FORM_LOGIN_PAGE	Specify the jsp file used to login into the application. Default value: /loginPage.jsp	
Web Form Login Error Page	WEB_FORM_LOGIN_ERROR_PAGE	Specify the jsp file used when there is an error when logging into the application. Default value: /formLoginError.jsp	
Web Security Role	WEB_PRINCIPAL_NAME	Specify the name of the security role. Default value: cisusers	
Web Principal Name	WEB_PRINCIPAL_NAME	Specify the name of a principal that is defined in the security realm. Default value: cisusers	
Application Viewer Security Role	WEB_APPVIEWER_ROLE_NAME	Specify the name of the security role.	
Application Viewer Principal Name	WEB_APPVIEWER_PRINCIPAL_NAME	Specify the name of the security name.	

Menu Option	Name Used in Documentation	Usage	Customer Install Value
This is a development environment	WEB_ISDEVELOPMENT	If the value is "true", the web application may be used for application development, which will trigger certain generation processes. If the value is "false" the environment will be used as a runtime environment. When you choose "true" (development environment) the startup preload pages will be disabled, and the application security will be less strict. This value also controls the amount of logging information written to the application log files. Valid values: true, false Default value: false	
Preload All Pages on Startup	WEB_PRELOADALL	This controls if the pages should be pre-loaded during the startup of the application or not. Valid values: true, false Default value: false	
Maximum Age of a Cache Entry for Text	WEB_MAXAGE	Default value: 28800	
Maximum Age of a Cache Entry for Images	WEB_MAXAGEI	Default value: 28800	
JSP Recompile Interval (s)	WEB_wlpageCheckSeconds	Default value: 43200	

Advanced Web Application Configuration

```
53. OIM Configuration Settings
     SPML SOAP Trace Setting:                                  false
     SPML IDM Schema Name:                                     F1-IDMUser
    SPML OIM Name Space:      http://xmlns.oracle.com/OIM/provisioning
     SPML OIM Enclosing Element:                               sOAPElement
```

Menu Option	Name Used in Documentation	Usage	Customer Install Value
SPML SOAP Trace Setting	OIM_SPML_SOAP_DEBUG_SETTING	Name of Oracle Identity Manager library for debug Default value: false Valid values: true, false	
SPML IDM Schema Name	OIM_SPML_UBER_SCHEMA_NAME	Name of Oracle Identity Manager library for schema Default value: F1-IDMUser	
SPML OIM Name Space	OIM_SPML_NAME_SPACE	Default Namespace for Oracle Identity Manager integration Default value: http://xmlns.oracle.com/OIM/provisioning	
SPML OIM Enclosing Element	OIM_SPML_SOAP_ELEMENT	Default top level SOAP Element name for Oracle Identity Manager integration Default value: sOAPElement	

Oracle Real-Time Scheduler Installation and Configuration Worksheets

During the installation and configuration of the application you will need to provide a variety of system values. These worksheets will assist you in providing that information. No Customer Install Value fields should be left blank.

Note: Some web application server information will not be available until the software installation steps have been completed as described in the previous chapter dealing with installing application server pre-requisite software.

JMS Configuration

```
8. JMS Configuration
   Context Factory:        weblogic.jndi.WLInitialContextFactory
       WebLogic Server URL:
       Weblogic System User ID:
       Weblogic System Password:
       Time Out:                  120000
```

Menu Option	Name Used In Documentation	Usage	Customer Install Value
Context Factory	CONTEXTFACTORY***	JNDI Name attribute field when the Connection Factory object is created. When the Connection Factory object is loaded, JNDI provides a path to the object. Default: weblogic.jndi.WLInitialContextFactory	
WebLogic Server URL	URL***	Specify weblogic server URL in below format: t3://<host>:<web server port no> NOTE: This is the port number that is used as a part of the client URL request to connect to the host. If you enable the WebLogic console port number using the Advanced Web Application Configuration menu, then specify WebLogic server URL in the following format: t3s://<host>:<weblogic console port number> Otherwise: t3://<host>:<web server port no>	
Weblogic System User ID	WLS_USERID***	User ID to login to Admin WebLogic console. Default user ID: system	
Weblogic System Password	WLS_PASSWORD***	On the configuration step of Oracle Utilities Mobile Workforce Management install process you have to provide the same password given during Oracle Utilities Application Framework installation. This should only be done if you have changed the password on an existing system following the Oracle WebLogic instructions.	
Time Out	TIMEOUT***	JMS Configuration Timeout, in milliseconds. Default:120000	

ORS Environment Description

```
9. ORS Environment Description
      ORS Scheduler Map Files Location:
       Schedule Manager Port Number:
       Minimum Requests:                                  1
       Maximum Time (seconds) Booking Requests:           5
       Unique identifier for
       the instance of the JVM:
      Registry cleanse timing in seconds:                900
       Scheduler connection timeout in milliseconds     300000
```

Menu Option	Name Used In Documentation	Usage	Customer Install Value
ORS Scheduler Map Files Location	MAPDIR***	Location for Map files from where scheduler will read the maps. For example: **Unix:** /ouaf/mapdir **Windows:** C:\ouaf\mapdir	
Schedule Manager Port Number	IPCSTARTPORT***	Specify the starting port number on which the application will communicate with the scheduler processes. The application will look for any available port above this number. Default: 9100	
Minimum Requests	MINREQUESTS***	Minimum request that scheduler can handle. Default: 1	
Maximum Time (seconds) Booking Requests	MAXPROCESSINGTIM***	Maximum request that scheduler can handle. Default: 5	
Unique identifier for the instance of the JVM	NODEID***	Unique id for JVM instance. For Example: Node1 Note: This has to be same as the Node ID configured in the Scheduler table in the Oracle Utilities Mobile Workforce Management application. This should be left empty if scheduler is going to be run from the standalone batch program.	
Registry cleanse timing in seconds	CLEANSE_INTERVAL***	This is the registry cleanse interval. Default: 900	
Scheduler connection timeout in milliseconds	SCHED_CONN_TIMEOUT***	Scheduler connection timeout in milliseconds. Default: 300000	

Geocode Data Source Configuration

```
10. Geocode Data Source Configuration
      JDBC URL for the
      Geocode database:
      Database User Name:
      Database Password:
      JNDI name for the
      Geocode datasource:
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
JDBC URL for Geocode Database	DBURL_GEOCODE***	Geocode database information details. For example: jdbc:oracle:thin:@localhost:1521:GEODB	
Database User Name	DBUSER_GEOCODE***	Geocode database user ID.	
Database Password	DBPASS_GEOCODE***	Geocode database password.	
JNDI name for the Geocode datasource	JNDI_GEOCODE***	JNDI name for accessing the database. For example: GEOSAMPLE	

Mapviewer Configuration

```
11. Mapviewer Configuration
      Deploy mapviewer locally on this instance:              true
      Location of mapviewer ear file:
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Deploy mapviewer locally on this instance	MAPVIEWER_ISLOCAL***	Set this value to true for deploying mapviewer on the same WebLogic instance. Default: true	
Location of mapviewer ear file	MAPVIEWER_EAR***	This needs to point to the location of the exploded mapviewer ear directory in case mapviewer is deployed locally on the same Weblogic instance. For example: /ouaf/mapviewer/mapviewer.ear	

Security Configuration

```
12. Security Configuration
      Deploy only mobility web application:                  false
      Allow self signed SSL certificates:                    false
```

Menu Option	Name used in this Documentation	Usage	Customer Install Value
Deploy only mobility web application	MOBILITY_APP_ONLY***	Set this value to true to deploy only the mobility web application. This option can be used to expose just the mobility web application to the internet while the rest of the application runs inside a secured environment. Default: true	
Allow Self Signed SSL Certificates	ALLOW_SELFSIGNED_SSL***	Set this value to true to allow self signed SSL certificates. Default: false	

Note: *** denotes mandatory field options that are required for the product installation.

Appendix B

Installation Menu Functionality Overview

The main configuration menu is structured so that related variables and/or options are grouped together and are associated by a menu item number. To access a particular group of variables and options, enter the menu item number associated with that group. Each option within that group is displayed in turn on the screen, along with a prompt so that you can type the desired value for the option, if it is not the same as the default or current value.

When performing the initial installation you need to go through all menu options. The menu options may have a default value, a list of valid values and a validation check.

On each option prompt you can keep the current value by simply leaving the input line empty. In order to erase a variable value you need to enter one dot (“.”). The leading spaces will be trimmed out on each values entered.

Note: When working with the menu you will see the following:

- **Valid Values: [ALFANUM].** This indicates you will need to enter an alphanumeric value in the prompt.
- **Valid Values: [NUM].** This indicates you will need to enter an numeric value in the prompt.

When all options are set, type <P> at the main menu prompt option. This will save the option values selected throughout the configuration.

During this processing the global variables are validated and the configuration file <SPLEBASE>/etc/ENVIRON.INI is created or updated. This file contains all the variables inputted and calculated. These are needed by the next part of the installation process.

To exit the configuration utility without saving any of the values entered, type <X> and 'Enter'

Installation Menu Functionality Details

The Environment Installation Utility requires that Oracle Client Home is set in the path for the user performing the installation.

Prior to running the installation utility you will need to review the supported platforms document to ensure you have all of the Third Party software installed.

In this menu if the variables are set prior to execution, that value will be defaulted by the installation utility when performing the installation.

When the installation has been completed successfully, the values will be written to an ENVIRON.INI file. When splenviron.sh / cmd is executed, it will read from the ENVIRON.INI file to set the environment variables.

In the worksheets there are three different types of values given:

- Default Values are the values that will be defaulted when running the installation utility.
- Security Values denote values that should be changed when in production.
- Example Values are values that can be used for a default installation.

> **Note:** The production environment should not be run with default values. See the *Server Administration Guide* specific to this product, for additional information about configuring these values.

When you enter passwords you will not see the password characters on the screen because they are entered in silent mode. Passwords are encrypted when the values are entered.

Install the Oracle Client software specified in the section **Supported Platforms** prior to running any of the installation utilities.

The following prompt will appear when executing the installation utility:

```
Enter Oracle Client Home Directory (<ENTER> quit):
```

> **Note:** If the environmental variable ORACLE_CLIENT_HOME is set, the install script will validate the variable. If it passes the validation you will not be prompted for it. This is needed in order to run Perl installation utilities.

Encryption Methods

When the application server choice is Oracle WebLogic, the Oracle Utilities Application Framework installation uses the WebLogic API to encrypt the User ID and password that perform admin functions for the WebLogic application servers. Please refer to the WebLogic documentation for further information about the encryption.

The Oracle Utilities Application Framework installation also uses industry standard cryptography to encrypt passwords that are prompted within the installation.

In each case these password are entered in the command line but the inputted values are not reflected on the screen when performing the installation.

Appendix C

Application Framework Prerequisite Patches

Oracle Utilities Application Framework patches must be installed prior to installing Oracle Utilities Mobile Workforce Management 2.2.0.1. The patches listed below are available as a convenience rollup, ORS-v2.2.0.1.0-FW-PREREQ-Multiplatform.zip, which is included in the downloaded Media Pack. Please refer to the instructions contained inside the rollup directory for steps to install the patches.

11067376	12617593	12655477	12659026	13590951
14031557	14041244	14060897	14192814	14240578
14319206	14521962	14524888	14527006	14527400
14539076	14544366	14544452	14545944	14559104
14560564	14565634	14565651	14579412	14581708
14592799	14594616	14600735	14602866	14609627
14614586	14621732	14626695	14631396	14644644
14664647	14671706	14676277	14698961	14700423
14708140	14708436	14729592	14730885	14736454
14736785	14744330	14745556	14770392	14772030
14775075	14789571	14797345	14840823	15841356
15858191	15873943	15877611	15880329	15905379
15992222	16167603	16186722	16190087	16212989
16215864	16219683	16303599	16316995	16318143
16343977	16374017	16385299	16396059	16396573
16398499	16398679	16418659	16425774	16437301
16440688	16440733	16448289	16449617	16461061
16472132	16476077	16480050	16480191	16482296
16487106	16487403	16490438	16495223	16497621
16504198	16504293	16520616	16530304	16535383
16538157	16545152	16546995	16547650	16552932

16554947	16555312	16568048	16579180	16580225
16581770	16586472	16592440	16603628	16616715
16617700	16635023	16659790	16664523	16668983
16670760	16671538	16672791	16675764	16675844
16675996	16676399	16677131	16679063	16679656
16689329	16689704	16694153	16702800	16708885
16717970	16726511	16727925	16736533	16743893
16758539	16759653	16762892	16768046	16777821
16787349	16787374	16796398	16802088	16806989
16816282	16838338	16844187	16850247	16850309
16850688	16856170	16858291	16864647	16874883
16881183	16904379	16908277	16908713	16914402
16917344	16923725	16925436	16925841	16928582
16931039	16931822	16935190	16937425	16939783
16950639	16951883	16956686	16956950	16985929
16986814	16988199	16989121	16999320	16999381
17010423	17022658	17029908	17042684	17049686
17055049	17061689	17067655	17076211	17154339
17160605	17165578	17165623	17171626	17174332
17179383	17180889	17204179	17211890	17214853
17221519	17232848	17242602	17244396	17244868
17252644	17258929	17273482	17273787	17278843
17279812	17285833	17287164	17290592	17294881
17296906	17302337	17302917	17305257	17314586
17316663	17331193	17335666	17335688	17336166
17336286	17338595	17341218	17342450	17344235
17348986	17355244	17365200	17368315	17369164
17369474	17376564	17377813	17384099	17404820
17408028	17414002	17418262	17420015	17432034
17432895	17433997	17434604	17437263	17438161
17441910	17445631	17450267	17450419	17458194
17464596	17465183	17468220	17470117	17471956
17472596	17476261	17478243	17478927	17488821
17489370	17505391	17510169	17516857	17517777

17517869	17517924	17533662	17534392	17535672
17538095	17555647	17560947	17562179	17562184
17570794	17570797	17572833	17575909	17583089
17584157	17584161	17589610	17591437	17592316
17596015	17597598	17597773	17600131	17609265
17611099	17615392	17616051	17618354	17649461
17651139	17694507	17717722	17736967	17743032
17750844	17750857	17754375	17782943	17787461
17794062	17797353	17801211	17802274	17821535
17821540	17827765	17830939	17843874	17844287
17849576	17891219	17899486	17910758	17930543
17948308	17950954	17952946	17971113	17973498
17980168	17992633	17998187	17998487	18017320
18017508	18019745	18033305	18037182	18049320
18051717	18055168	18056717	18062613	18078205
18083939	18109222	18112287	18115752	18117209
18130703	18132851	18136611	18139433	18141665
18144536	18147812	18164113	18186632	18198530
18204962	18220265	18221507	18223615	18225471
18233168	18233184	18242229	18253154	18253693
18259634	18270274	18277216	18287159	18288104
18291614	18291643	18300703	18323364	18323555
18330463	18331092	18331603	18334251	18335807
18337995	18340470	18346736	18347676	18351753
18362779	18364208	18365321	18375959	18376516
18377981	18378042	18383825	18386558	18394093
18399934	18399979	18406240	18406654	18412922
18413143	18413339	18417428	18422248	18429782
18443811	18446673	18454203	18454805	18466506
18471976	18473816	18473934	18476044	18483566
18495142	18508446	18509871	18515432	18516332
18521727	18530421	18534676	18553396	18593305
18597480	18598989	18651827	18658819	18669481
18669516	18676588	18679958	18691074	18713952

18727281	18736173	18771468	18788618	18794326
18794468	18868029	18880050	18894494	18910899
19050588	19057193	19159969		

Appendix D

Oracle Real-Time Scheduler Fixes

The following table lists the Oracle Real-Time Scheduler fixes included in this release.

19648915	BATCHES ARE TIMED IN INITIAL INSTALL ENVIRONMENT
19630123	SAFETY NOTIFICATIONS ARE NOT GETTING TRIGGERED FOR PICKUP ACTIVITIES.
19629038	UNABLE TO VIEW RELATED/UNRELATED ACTIVITY FOR TASK TYPE WITH PROCEDURE ON SERVER
19624716	SITE ID NOT BEING PASSED / COMPOSED FOR AB REQUEST
19610303	AUTO REFRESH WHILE LOADING ROUTE REPLY GEOGRAPHIC MAP
19609659	21808 V1 WEB SERVICES:EXTERNAL SYTEM CANNOT BE CLEARED ONCE DEFINED
19608916	21808 V1WEBSERVICES: JAVA EXCEPTION CAUGHT ON RUNNING DEPOT MONITOR BATCH
19608569	LEGEND IS FAILING TO DISPLAY ON THE WINDOWS MAP
19605883	NEEDED UPGRADE SCRIPTS FOR ENHANCEMENTS 21584 AND 21755
19604915	CMA: ISSUE MIGRATING EQUIPMENTS
19603289	ADDRESS CHANGED ON SERVER SIDE NOT REFLECTING ON DEVICE - ACTIVITY
19601906	SCHEDULER HAS STOPPED ABRUPTLY WITH SEGMENTATION FAULT IN MWM ENVIRONMENT.
19599737	CR:V1 WEBSERVICES:M1-SCHEDMANIFESTSYNCREQBO IS MISSING FROM THE MESSAGESBO SEARC
19595158	COPY OF BUG 19429568 - THE MDT HAS THE CORRECT ETA TIME, BUT IT IS SORTING THE L
19594607	21808 V1WEBSERVI: M1-DEPOTCUTOFF RETURNS CONSTRAINT CISADM.M1T825S2 WAS VIOLATED

19592425	CR:DEPOT CUTOFF TIMES SECTION SHOULD BE AVAILABLE ONLY FOR DISTRIBUTIONS DEPOTS
19589182	COPY OF BUG 19177114 - ERROR ENCOUNTERED WHEN ATTEMPTING TO DUPLICATE USER GROUP
19587192	TASKS NOT COMPLETED ON SERVER FROM DEVICE - MORE THAN 1 TASK IN PROGRESS ERROR
19586618	BS M1-MCPDATETIMECALCULATION IS NOT RETURNING FORMATED DATE IN OUTPUT
19586325	21808 V1 WEB SERVICES:TRIGGER DATE IS NOT SET TO NOW IF NOT SPECIFIED
19585400	21808 V1WEBSERVICES:DEPOT-CUTOFF DTTM SHOULD ALWAYS MATCH DEPOT TZ
19576524	COPY BUG OF BUG 18913254 - DEPOT TASK WITH WORK SEQ = 0 DISPATCHED
19567303	NEED TO INCLUDE BUG#19567241(FW) INTO KNOWN ISSUE
19566906	21808 V1 WEB SERVICES: ISSUES WITH M1-REQUESTSHIFTMANIFEST
19566096	EFFICIENCY DURATION IMPACT IS NOT EXIST FOR DEPOT AND COMPLEX ACTIVITY TYPE
19557878	SCHEDULER CRASHES IN RELEASE CODE WHEN STACK SIZE IS 50M.
19551079	SKILL EFFICIENCY NOT ACCEPTING BLANK VALUES
19544855	COPY BUG 17800911 - UPGRADE 220: SCHEDULER CONFIGURATION PARAMETER BE CHANGED MA
19544842	COPY BUG 17800937 - UPGRADE 220: NEW WAY OF SETTING UP SCHEDULER IN 220
19538059	ERROR WHEN CREW CLICKED ON "ADD ANOTHER" BUTTON TO ADD A RELATED ACTIVITY ON MDT
19530816	COPY OF 19439516 - MBL CREW CANNOT LOGON, MDT & SRVR SHIFT STATUS OUT OF SYNC
19513226	GETTING ERROR WHILE SUBMITTING M1-REQUESTSHIFTMANIFEST XAI
19511462	SMAUTO NOT DISPATCHING EXPLICITLY CLOSED DEPOT RUNS ON SHIFT START - DRIP MODE
19504614	MINIMUM TRAVEL TIME IS BEING APPLIED FOR ACTIVITIES AS THE SAME SITE.
19503644	COPY BUG OF 19173445 - DATA ERROR CRASHES SCHEDULER - REQUEST FOR STABILITY
19503644	COPY BUG OF 19173445 - DATA ERROR CRASHES SCHEDULER - REQUEST FOR STABILITY

19499890	ACTIVITY WITH A KEY LOCATION IS SCHEDULED TO A CREW SHIFT WITH DIFFERENT LOC
19499608	SITE ID BEING COPIED IF WE DUPLICATE AN ACTIVITY.
19499574	FIELD SIZE MISMATCH BETWEEN UI AND DB IN ACTIVITY CREATION - ADDRESS FIELDS
19481687	COPY BUG 19440847 - ERROR IN NAVIGATION TO CAPACITY CONTRACTOR TAB
19480701	NAVIGATION PANE GETS OVERLAYED ON TOP OF THE THEMES DISPLAY
19480610	DISPLAYED "THEMES" TEXT AND ALIGNMENT IS NOT APPROPRIATE ON THE MDT
19473513	MAP DISPLAY GETS BROKEN WHEN SCREEN IS ROTATED USING SCREEN ROTATION ON MDT
19473098	COPY BUG 16837092 - DISPATCHER SHIFT DATE RANGE VALUE ACCEPTS A ZERO
19470836	DEFAULT THEME DOESNT SHOW UP FOR NEW USER LOGIN ON MDT
19457733	DIRECTIONS PANE DOESNT CLOSE WHEN CLICKED WITH OUT CLICKING "GET DIRECTIONS"
19457099	ERROR MESSAGE NOT DISPLAYED IF SKILL EFFICIENCY IS DEFINED WITHOUT SKILL LEVEL
19456651	MAPS ON LAPTOP MDT FAIL TO EXPAND ON THE UI SCREEN
19456372	SITE ADDRESS SOFT PARAMETER CHECK
19456305	INCORRECT CAMEL CASE DEFINITION OF SITE ADDRESS SOFT PARAMETER
19456228	COPY OF BUG 19456165 - HOST UPDATES FOR A BREAK CAN BE LOST AFTER ROLLBACK
19455950	SHIFT RELATIVE SKILL EFFICIENCY NOT PASSED TO SCHEDULER
19450041	SMAUTO ASSERTS IN CHAIN INSERT SHUFFLER WHEN SCHEDULING AN OPTIONAL BOUND JOB
19437061	DIRECTIONS LIST IS NOT POPPED OUT BY DEFAULT WHEN CLICKED ON "GET DIRECTIONS"
19436402	“THEMES"OPTION ISNT GETTING DISPLAYED AS A LIST ON THE MAP
19436040	LEGEND ALIGNMENT WHEN CLICKED ON "GET DIRECTIONS" IS INAPPROPRIATE
19435558	THEME OPTIONS & GET DIRECTIONS BUTTONS ARE OVERLAPPED ON MDT
19435051	OVERRIDE SPEED TIME PROFILE MISSING VALIDATION FOR VALUES. MUST BE 0.1 TO 2.0

19434570	MAP ICON ISNT VISIBLE ON ANDROID MDT
19434334	SCHEDULER CRASHES IF ACTIVITY IS SCHEDULED TO A CREW WITH HIGHER SKILLEFFICIENCY
19434223	CAPACITY SHIFT CUTOFF/FREEZE DATE TIME NOT BEING STORED IN CREW SHIFT SCHEDULE
19425705	OUTBOUND MESSAGE GENERATED FOR EXTERNAL HOST DOESNT CONTAIN THE ATTACHMENT DATA.
19425120	M1 LOG TABLES NOT "LOCAL STANDARD TIME", "PHYSICAL STANDARD TIME"
19420740	UPDATING ACTIVITY ATTACHMENT THROUGH XAI FAILS TO DOWNLOAD ON MDT
19403647	COPY OF BUG 18962787 - MWM CANCELLED ACTIVITIES STILL IN HOLDING SCHEDULER
19393904	CREATE BY CREW FIELD IS BLANK IF NO VALUE IS BEING PASSED
19391464	SPEED FACTOR IS NOT APPLIED IF THE PROFILE AREA COVERS ONLY ACTIVITY LOCATION.
19390898	DELETING THE SPEED PROFILE AREA IS NOT DELETING THE OVERRIDE TEMPLATES FROM DB
19390672	ACTIVITY SCHEDULE TAB DISPLAYS NOTHING WHEN SCHED RUNNNG THIN OR DIFF COHERENCE
19387291	USER CONFIGURATION LIST ZONE ON USER PORTAL IS INCORRECT
19381290	CREW SHIFTS DISPLAY SORT ISSUE IN CDI GANTT AFTER CLOSING THE TASK VIEW MODE
19380745	SCHEDULER CRASHES IF SPEED FACTOR IN TEMPLATE IS SET AS BLANK.
19380701	DELETING A OVERRIDE TEMPLATE IS NOT RESETTING THE SPEED FACTOR VALUES TO BE USED
19380681	CHANGES TO SPEED PROFILES ARE NOT ALWAYS UPDATING THE TRAVEL TIME
19380532	LOG TIME IN SPEED PROFILE LOG TAB NOT IN USER TIMEZONE.
19380237	NO TOOL TIP IS BEING DISPLAYED FOR SPEED PROFILES.
19380220	NO ERROR MESSAGE IS DISPLAYED IF BO OPTION IS NOT SELECTED FOR SPEED PROFILES
19380145	UPDATING THE ACTIVITY WITH NEW ATTACHMENT FROM EXTERNAL HOST (XAI) FAILS.
19379559	COMPLEX CHAINS - SMAUTO SEG FAULTS IN SHUFFLERS IN RELEASE BUILD

19363415	CREW STATUS IS EMPTY IN GANTT WHEN STARTED TASK IS A NPT/POU
19357346	DEPOT RUN AND DEPOT ACTIVITY ISSUES
19351488	DISABLE MISSED BREAKS
19333240	APPOINTMENT BOOKING REQUEST RETURNING ERROR M1_EFF_DUR_IMPACT NON EXISTENT
19320297	DUPLICATION OF CAPACITY WEEKLY TEMPLATE FAILS WITH HIBERNATE ERROR
19320162	NEED TO CHANGE MCP CLIENT VERSION 220000.0 TO CORRECT MWM SP1 VALUE
19317895	AUTO_CLOSE DISTR RUN ON DESPATCH IS NOT USED AND SHOULD BE REMOVED.
19317872	DEPOT STOP SHOULD NOT BE COUNTED INTO SHIFT JIOB DESPATCH HORIZON
19307566	GANTT - CLOSE MENU ITEM INCORRECTLY DOES NOT SHOW FOR A DEPOT TASK
19282648	MISSING SCHEDULER MESSAGES IN MESSAGES TABLE
19280493	COMPLEX CHAINS: IGNORE DEPENDENCY WINDOW WHEN ALLOCATED OUTSIDE OF IT
19275687	CA - VISITS ERROR STATE IS SHOWING AS WARNING EVEN FOR COMPLETED VISITS
19275491	UNABLE TO DUPLICATE/EDIT SCHEDULER CONFIG IN 220 SP1 ENV - OEL 6.5
19266729	COPY OF BUG 19209790 - SP6 UPDATE - A HANDFUL OF USERS UNABLE TO LOG INTO MDT AF
19241431	COMPLEX CHAINS :FIXED SHIFT IS NOT TAKING INTO ACCOUNT FOR TW NORMALISATION
19232638	ENABLE DISPLAY OF OVERTIME FOR PLANNED SHIFTS ON CDI GANTT
19214418	DATA MODEL CHANGE RELATED TO OPTIONAL CREATION OF ACTIVITIES IN THE FIELD
19187942	NEWLY CREATED DEPOTS NOT ACTIVATED AND NOT PUSHED TO SCHEDULER FOR AB OR SCHED
19183509	SCHEDULER ABORTS TESTCODE WITH "NO INTERNAL UPDATES ON START"
19166066	ADVANCE DISPATCH MODE CLOSE AND DISPATCH ALL INCORRECTLY PREVENTS PREVIEW
19161390	PLAN_STOP SHOULD NOT CLEAR ETA DATE/TIME
19147106	COPY BUG 18915574 - PROBLEM IN PERFORMING SEARCH ON CDI

19139172	COPY OF BUG 18385612 - DEPOT RELATED SEGMENTATION FAULT 2
19133908	M1_MDT_STATUS GLEV COMBINATION, NOT FOUND
19131997	ASSERTION WHEN NORMALIZING MST WITH VISIT FIXED TO NON-EXISTING SHIFT
19124722	COPY OF BUG 18867078 - BLOCKING LOCKS ON M1_SCHED_REG
19073422	COPY OF 19064402 - VALUES ENTERED IN MDT CMPL REMOVED AFTER SUSPEND THEN CLOSE
19066761	A SECOND VISIT IS REMOVED FROM A SHIFT ONCE THE FIRST VISIT BECOMES DISPATCHED
19060042	COPY BUG 18804441 - APPOINTMENT BOOKING REQUEST IS NOT NEGATING CUMULATIVE CAPAC
19058707	COPY OF BUG 18887253 - M1_SCHED_REG SQL PERFORMANCE
19051918	COPY BUG 18895347 - SIEBEL-ORS INTEGRATION: COST OF ALLOCATION TOO HIGH NOT
19027373	IMPLEMENT FROZEN SHIFTS AND BUCKETS
19020927	COPY OF BUG > BUG 19018359 - GENERATION OF SHIFT SKIPS THE SHIFT WHEN PLAN START
19020279	COPY OF BUG > BUG 18998621 - DELETE GENERATED SHIFT LOGIC TO CONSIDER SHIFTS BEY
19008191	21860 SKILL BASED PROFICIENCIES (SCHEDULER/SM)
18999821	COPY BUG OF BUG 18956045 - ENTIRE 1 SCHEDULER REPEATEDLY SHUTS DOWN IN 2.2 DEV
18978848	COPY OF 18898423 - MWM SCHEDULING INFO - CALC TRAVEL DISTANCE IN METERS-M2 CHGS
18978804	COPY OF 18791624 - MWM - SCHEDULING INFO - CALCULATED TRAVEL DISTANCE IN METERS
18971214	SCHEDULER ASSERTS IN TEST CODE LOADING DATA SET WITH BOUND JOBS
18966187	CONNECTED MCP - UPGRADE JQUERY VERSION TO THE LATEST VERSION
18944238	COPY BUG 18886915 - UPDATES TO EMPLOYEE EXCEPTION HOUR IGNORED BY SIEBEL-ORS INT
18935689	COPY BUG OF BUG 17044001 - WHEN DELETING A CREW, CREW SHIFT, MOBILE WORKER, ETC.
18935432	COPY BUG 18846570 - CREW SCREEN HANGING AFTER CLICKING ON RECORD INFORMATION.
18919418	COMPLEX CHAINS: PARTIALLY COMPLETED COMPLEX CHAINS

18906824	CDI GANTT: MENU LINES CANNOT BE ADDED DIRECTLY TO RIGHT CLICK TASK MENUS
18893472	COPY BUG OF 18453297 - BATCH M1-ALMTR ERRORING DUE TO SEQUNCE NUMBER BEING TOO L
18891521	COPY OF BUG 18891460 - VIEW M1_ACTIVITY_MAP_THEME_VW DOES NOT SELECT VISIT ACTIV
18886315	MCP SUPPORT LABEL TAGS IN UI MAPS
18841683	COMPLEX CHAINS: ALLOW A SWAP FOR A MANDATORY CC (MST) INSERTION
18823606	COPY OF BUG 18803550 - SCHEDULER NOT MAKING APPOINTMENT AVAILABLE WHEN IT SHOULD
18813636	COPY BUG 18680756 - SPEED FIELD PRECISION ERROR SEEN THROUGHOUT LOGS . 2201
18813047	SHIFT PREVIEW SCRIPT RETURNS INCORRECT SCHEDULE DETAILS
18796352	COPY OF BUG 18787581 - DEPOT TASK COMPLETION TRIGGERS PLACING OF NON ETA UPDATES
18788292	COPY BUG OF BUG 18750780 - SHIFT ID IS MISSING ON DEPOT TASK COMPLETION REMOTE
18787071	COMPLEX CHAINS: CHANGE TO ALLOCATION PRIORITY NORMALISATION
18787017	COMPLEX CHAINS: SHUFFLERS TO INSERT AND FREE OPTIONAL COMPLEX CHAINS
18765756	COMPLEX CHAINS - ASSERTION IN COST CALCULATIONS WHEN CC DATASET HAS BUCKETS
18758110	COMPLEX CHAINS - SMAUTO ASSERTS WHEN SHIFTS WITH ASSIGNED CC VISITS ARE DELETED
18749038	COMPLEX CHAINS - ASSERTION WHEN SCHEDULING CONCURRENT BREAKS WITH BOUND VISITS
18743953	COPY BUG 18595703 - CLOSED SHIFTS BEING AUTOMATICALLY REOPENED
18728940	CHANGE HELP TEXT ON CREW SHIFT OVERRIDES ON SINGLE CREW DISPLAY/MAINTANANCE
18716151	COMPLEX CHAINS: ADD A RESTRICTION TO THE BINDING MODE FOR CC
18710994	COPY BUG OF BUG 18620892 - UNABLE TO CHANGE APPLIED SHIFT WEEKLY TEMPLATE
18693104	INCORRECT EXCESS VEHICLE LOAD COST CONFIG LIMITS
18668412	COMPLEX CHAINS: ALLOCATED+ VISIT CAN START A SCHEDULABLE SUB-CHAIN

18660432	COPY OF BUG 18631389 - MWM MDT CLIENT FATAL ERRORS ONLY BEFORE 9AM
18650762	COPY OF BUG 15850150 - UNEXPECTED BEHAVIOR IN "ACTIVITY SCHEDULED DATE SEARCH"
18648268	MISSING FK CONSTRAINT ON M1_DEPOT TABLE FOR NEW FIELD TASK_TYPE_CD
18641935	WORK CALENDAR DROP DOWN ON DEPOT MAINTENANCE DOES NOT ALLOW BLANK SELECTION
18621724	COPY OF 18607824-VALIDATION OF DECIMALS IN METER READING NOT WORKING PROPERLY
18606709	OUT OF RANGE NOT SHOWN IN CDI FOR CREWSHIFT WHICH IS NOT IN NETWORK RANGE
18604574	COPY BUG 18546228 : UNABLE TO PUBLISH SCHEDULER CONFIGURATION
18604311	COPY OF BUG 18424450 - MEMORY LEAK IN BROWSER WIDGET - PROCESS MEMORY INCREASES
18597164	COPY BUG 18547442 EXCESSIVE PROCESSING IN CALLS TO POST-DISPATCH
18591064	LOOKUP FILEDS, SHOULD NOT HAVE THE VALUE AS NULL
18554707	COPY BUG 18512222 - STALE OBJECT EXCEPTION ON SCHEDULER MANAGER STOPS THE SCHEDU
18540026	COPY BUG - BUG 18400349 - COMPLETING A FORCED LOGOFF SHIFT RETURNS TASKS WITH PE
18507719	M1 FIELD DESCRIPTIONS CONTAINING TAB CHARACTERS
18501223	RETURNED DEPOT RELATED ASSIGNMENT REFERRING TO A SUBSEQUENTLY DELETED DEPOT TASK
18493351	COMPLEX CHAINS. MST SUITABILITY ERROR CHANGE
18492409	COPY OF BUG 18476999 - PERFORM THE START OF SHIFT PROCESSING ASYNCHRON
18479684	COMPLEX CHAINS : CHAIN NORMALISATION
18477935	COPY 18240125 - DEPOT RELATED SEGMENTATION FAULT
18477055	UNEXPLAINED DROP IN NUMBER OF SLOT RETURNED BETWEEN 2.1.0.5 AND 2.2.0.0
18470490	COPY BUG 18436812 - ACTIVITY SHOULD NOT GEOCODE ADDRESS WHEN LAT/LONG PROVIDED
18454726	COPY BUG 14246972 - NO MORE THAN ONE NON-DRAFT TEMPLATE WITH THE SAME EXTERNALID
18446968	COPY BUG OF BUG 18404016 - SCHEDULERS ASSIGNING AND DISPATCHING VERY SLOW WITH A

18446962	COPY BUG OF BUG 18386666 - SEGMENTATION FAULT OBSERVED IN SCHEDULER LOGS
18438130	COMPLEX ACTIVITY UNDERSCHEDULED ALERT RE-EVALUATION CLOSING ALL BUT 100% UNDER
18427533	FIXED TO CREW LOGIC IS INCORRECT ON VISIT BO
18427224	VISIT BO QFD STATE IS MISSING THE AUTO DISPATCH DEFERMENT ALGORIOTHM
18422572	COPY OF BUG 18183777 - DEFERRING ACTIVITY TO BOUNDARY BETWEEN TWO BACK TO BACK
18421481	COPY OF BUG 18309442 - INCORRECT DATE TIME CONVERSION WHEN CLOSING EXISTING TIME
18413353	COPY OF 18253127 - STORE PICKUP IND ON ASGN FOR PERFORMANCE IMPROVEMENTS-M1 CHGS
18387089	SCHEDULER PERFORMANCE REGRESSION - < DMPD_ADJUSTPLAN >
18383287	ENSURE NEW DATABASE COLUMNS HAVE BEEN ADDED TO PHYSICAL BOS
18379145	COPY BUG 18294881-UPON CLICKING GET DIRECTION MAP PANE IS BEING PUSHED BELOW TH
18348656	COPY OF BUG 18270703 - WASATCH SCHEDULER ORDERS NOT BEING DISPATCHED
18348580	COPY OF BUG 18183803 - SCHEDULER INCLUDES SLA FLEXABILITY WHEN DETERMINING TIME.
18346110	COPY OF 18338676 - PERFORM THE END OF SHIFT PROCESSING ASYNCHRONOUSLY
18334702	VISIT CLEANED BECAUSE WHEN ORIGINALLY RECEIVED FROM SMAUTO MST ID NOT RECORDED
18323983	COPY OF 18253607 - MOVE SETTING OF BO STATUS DESC IN MOBILE LOGS TO SERVER
18323957	COPY OF 18166963 - ENHANCE PERFORMANCE OF OUT OF SEQUENCE EVENT LOGGING
18323939	COPY OF 18168775 - IMPROVE PERFORMANCE OF MBL QUERIES USING STATUSCLASS-M1 CHGS
18320594	COPY OF BUG 18315308 - ADD FLAG TO M1-MDTQUERYSERVICE TO INDICATE IF TOTAL COUNT
18294124	COPY OF BUG 18119949 - MWMPRD - TIME OUT ON SCHEDULER REGISTRY QUERY
18278475	SM VERSION CONSISTENCY
18277920	COPY OF BUG 18033404 - DEPOT REGISTRY UPDATES - NEED TO BE CORRECTED
18275963	PROCEDURE TEXT IS NOT BEING POPULATED IN PROCEDURES ON THE MOBILE

18271322	EXCLUDE CONTRACTOR IS NOT WORKING ON ACTIVITY COMMITTED TO A CAPACITY CONTRACTOR
18264585	AUTO-SAVE DOES NOT FORCE UPLOAD OF PLAN TO IDB
18264174	STOP_PROMOTION_FACTOR->TDC VALUES ARE NOT BEING DISPLAYED ON UI
18264117	COPY 2.2 - BUG 17322674 - SUPPORT ABILITY TO UNHOLD AN ACTIVITY BY HOST
18263550	CONFIGURABLE LATE COST FOR POU TASKS
18260879	COPY OF BUG 18137139 - NEW MCP BUSINESS SERVICE TO FETCH BO OPTIONS
18252668	COPY OF 18154590 - CHG MBL TO USE M1-MDTRETRIEVEBOOPTIONS AND QUERY IDENTIFIER
18248699	ADDING SCHEDULE PRIORITY TO PLANNER CLIENT
18248099	SET CONTAINERS ARE CHANGED WHILE BEING ITERATED OVER
18247903	SMAUTO IS CREATING EXTRA VISITS FOR A CA WHOSE TW IS PARTIALLY BEYOND HORIZON
18247472	SMAUTO CRASHES DURING DATA LOAD WHEN ACCESSING A DEPOT RELATED STOP
18241005	COPY OF BUG 17322938 - UPDATING OVERRIDE TIME WINDOWS RECORD TIMES OUT
18232130	SPECIFIC COMPLETION DETAILS CANNOT BE SENT BY EXTERNAL CAPACITY CONTRACTOR
18225085	COPY OF 18198468 - DO NOT SYNC CHANGES FROM ACTIVITY TO FINALIZED ASSIGNMENT
18219741	SCHEDULER COMPUTES INCORRECT/NEGATIVE COSTS
18219699	CONDITIONALLY POPULATE THE "PENDING ALLOCATION REMARK" FOR VISIT DISPLAY
18219681	COPY OF BUG 18219673 - DEPOT MONITOR TO REMOVE UNUSED DEPOT TASKS DOES NOT WORK
18219633	COPYBUG 18173227 - SCHEDULER CRASHING WHEN LOADING DATA
18191591	SCHEDULER AUTODESPATCHES CLOSED+ STOP BEFORE STOP SCHEDULE STABILITY IS REACHED
18162769	COPY BUG: PROPAGADE 18044373 INTO 2.2.0.1-CONSOLIDATE SCHEDULER AUTO-DISPATCH..
18156832	HANDLE SCHEDULER UNDISPATCHED IN DEPOT TASK SCHEDULER READ
18152449	COPY OF BUG 18137115 - ENHANCE MCP QUERY BS TO SUPPORT QUERY IDENTIFIER

18147533	COPY OF 18049456 - MOBILE APPLICATION PERFORMANCE IMPROVEMENTS - M1 CHGS
18142147	COPY OF BUG 17447312 - COMPLETED CA STATUS IS ACTIVE ON CA->SCHEDULE TAB
18139341	CREW SHIFT RESUME DATE DOES NOT IMPACT THE SCHEDULE
18126396	STARTED DATE AND TIME NOT SET IN PLAN_MST PACKET FOR COMPLETED CA
18119717	COPY BUG 18033867:SMAUTO IS RETURNING CLOSED CAPACITIES IN RESPONSE TO CHOOSER R
18107359	COMPLEX CHAINS: INTRODUSE DEPENDENCY ON FIRST/LAST VISIT FOR COST AND HEURISTICS
18045341	CHOOSER: OPTION TO RETURN CAPACITY ONLY
18044700	COPY BUG 17892695 - COMPLETED CA/MST WITH REMAINING TIME GENERATES AN ERROR
18032931	REGRESSION FAILURE: TESTCASES/PLANNER/12.0/MST/16816702_RESENDMST
18032929	REGRESSION FAILURE: TESTCASES/PLANNER/12.0/MST/ALLOCATION/SAMEMST_FS
17982596	HOST EVENT NOT TRIGGERED WHEN A VISIT'S SEQUENCE TYPE IS MODIFIED BY SMAUTO
17968341	COPY OF BUG 16747388 - SCHEDULING VISIT DURATION NOT CALCULATED AS EXPECTED
17968306	COPY OF BUG 17920341 - CA-VISITS ARE NOT BEING SCHEDULED WITHIN THE INDIVIDUAL D
17924043	COPY BUG 17892683 - COMPLETING A CA/MST DOES NOT DELETE FREE DISABLED VISITS
17924038	COPY BUG 17855778 - SMAUTO SEG FAULTS WITH SIGNAL 11 WHEN AUTOSAVE IS ENABLED
17906907	DISPATCHED DEPOT TASK IS SUDDENLY FREED BY SCHEDULER
17906559	SM IS NOT PASSING ON DURATION UPDATES ON WARNING MESSAGES FROM SCHEDULER
17899317	COPY OF BUG 14578979 - FIX STOP-SHIFT TIME WINDOW COMPATIBILITY
17898393	RECALL FROM CAPACITY CONTRACTOR WHEN ACTIVITY EXPIRES OR WHEN INITIATED BY MWM
17892878	ONLY HOST-EVENTS THAT CHANGE THE SCHEDULE SHOULD BE CONSIDERED HOST-EVENTS
17892842	COPY OF BUG 10069219 - CONSISTENCY OF UPDATES FROM SCHEDULER (HOST EVENTS)
17878804	CREW SHIFT AUTO-COMPLETED BY THE SCHEDULER

17873112	FAILING TO SCHEDULE A MANUALLY ALLOCATED CHAIN MEMBER
17666162	GANTT CREW SHIFT PANE (LEFT) RE-SIZES DIFFERENTLY TO THE MAIN GANTT PANE (RIGHT)
17617214	DEPOT TASKS DO NOT ADHERE TO SEQUENCE LOCKING
17599949	COMPLEX CHAINS. INTRODUCE STOP_BOND TO MST
17578142	GANTT EXPAND SHIFT SOMETIMES FAILS
17554029	ISSUES RELATED TO JOBS
17454953	DEPOT TASKS ARE NOT CREATED WHEN ACTIVITY IS UPDATED
17443962	M1-ACTDISPATCHEDMSGTOHOST SYNC REQUEST BO DOES NOT WORK AT ALL
17380464	FIREFOX-MWM- ACTIVITY MAINT SCREEN: SELECT ACTIVITY TYPE SCREEN ALIGNMENT ISSUE
17380396	FIREFOX-MWM- ALERT AREA DISPLAY SCREEN: MAP DISPLAY ISSUE IN MAP TAB
17380324	ADA-MWM: MAIN- ACTIVITY VIOLATIONS
17379161	FIREFOX-MWM- PROCEDURE TYPE SEARCH SCREEN: ALIGNMENT ISSUE
17379088	FIREFOX-MWM- SCHEDULE AREA MAINT SCREEN, ALIGNMENT ISSUE
17378489	FIREFOX-MWM- MOBILE WORKER MAINT SCREEN: SELECT TYPE SCREEN ALIGNMENT ISSUE
17378025	ADA-MWM: MAIN- BATCH CONTROL GLOBAL VIEW VIOLATIONS
17377996	ADA-MWM: MAIN- TIMESHEET VIOLATIONS
17377969	ADA-MWM: MAIN- RESOURCE GROUP VIOLATIONS
17377954	ADA-MWM: MAIN- PROCEDURE VIOLATIONS
17377937	ADA-MWM: MAIN- CONTRACTOR ELIGIBILITY VIOLATIONS
17373802	ADA-MWM: MAIN- CAPACITY WEEKLY TEMPLATE VIOLATIONS
17373752	ADA-MWM: MAIN- CAPACITY VIOLATIONS
17373690	ADA-MWM: MAIN- ALERT AREA VIOLATIONS
17373639	ADA-MWM: MAIN- CONTRACTOR WORK MANAGEMENT VIOLATIONS
17371395	FIREFOX-MWM- CDI SEARCH : KPI SUMMARY AND SCHEDULING GANTT ZONE DISPLAY ISSUE

17366725	FIREFOX-MWM- ACTIVITY DISPLAY SCREEN: CAPABILITIES ZONE NOT GETTING DISPLAYED
17364553	ADA-MWM:ADMIN- WORK PROFILE VIOLATIONS
17364385	ADA-MWM:ADMIN- SERVICE AREA HIERARCHY VIOLATIONS
17364354	ADA-MWM:ADMIN- PROCEDURE TYPE VIOLATIONS
17364283	ADA-MWM:ADMIN- MIGRATION REQUEST VIOLATIONS
17364184	ADA-MWM:ADMIN- MIGRATION PLAN VIOLATIONS
17353198	FIREFOX-MWM- SCHEDULER CONFIGURARION DISPLAY SCREEN: EXPAND ZONE NOT WORKING
17353034	FIREFOX-MWM- DUPLICATE FUNCTIONALITY ISSUE
17352874	FIREFOX-MWM- EDIT FUNCTIONALITY ISSUE
17352548	ADA-MWM: MAIN- RESOURCE ROUTE REPLAY VIOLATIONS
17352514	ADA-MWM: MAIN- MY MAIL VIOLATIONS
17352493	ADA-MWM: MAIN- RESOURCE PLANNING VIOLATIONS
17352452	ADA-MWM: MAIN- SHIFT WEEKLY TEMPLATE VIOLATIONS
17352304	ADA-MWM: MAIN- OVERRIDE TIME WINDOW QUERY VIOLATIONS
17345921	ADA-MWM: MAIN- VEHICLE VIOLATIONS
17345882	ADA-MWM: MAIN- MOBILE WORKER VIOLATIONS
17345800	ADA-MWM: MAIN- DISPATCHER VIOLATIONS
17345729	ADA-MWM: MAIN- CDI VIOLATIONS
17345642	ADA-MWM: MAIN- CREW SHIFT VIOLATIONS
17345549	ADA-MWM: ADMIN- DEPOT VIOLATIONS
17339804	ADA-MWM: MAIN- CREW VIOLATIONS
17339772	ADA-MWM: MAIN- PERIOD OF UNAVAILABILITY VIOLATIONS
17339713	ADA-MWM: MAIN- ALERT VIOLATIONS
17338106	ADA-MWM: ADMIN- VEHICLE TYPE VIOLATIONS
17338015	ADA-MWM: ADMIN- WORK CALENDAR VIOLATIONS
17337956	ADA-MWM: ADMIN- SKILL VIOLATIONS
17337925	ADA-MWM: ADMIN- SHIFT TYPE VIOLATIONS
17337562	ADA-MWM: ADMIN- SHIFT COST PROFILE VIOLATIONS
17337479	ADA-MWM: ADMIN- SERVICE CLASS VIOLATIONS
17337457	ADA-MWM: ADMIN- SERVICE AREA VIOLATIONS

17337433	ADA-MWM: ADMIN- SCHEDULER REGISTRY VIOLATIONS
17332442	ADA-MWM: ADMIN- SCHEDULER CONFIGURATION VIOLATIONS
17332400	ADA-MWM: ADMIN- SCHEDULER AREA VIOLATIONS
17332376	ADA-MWM: ADMIN- SCHEDULER VIOLATIONS
17332350	ADA-MWM:ADMIN- REMARK TYPE VIOLATIONS
17332246	ADA-MWM:ADMIN- PRIORITY PROFILE VIOLATIONS
17332214	ADA-MWM:ADMIN- PERIOD OF UNAVAILABILITY TYPE VIOLATIONS
17331870	ADA-MWM:ADMIN- PARAMETER DEFINITION VIOLATIONS
17331792	ADA-MWM:ADMIN- MOBILE WORKER TYPE VIOLATIONS
17331756	ADA-MWM:ADMIN- MDT TYPE VIOLATIONS
17288288	ADA-MWM:ADMIN- MDT VIOLATIONS
17288153	ADA-MWM:ADMIN- MAILING LIST VIOLATIONS
17288069	ADA-MWM:ADMIN- MAIL TEMPLATE VIOLATIONS
17286237	ADA-MWM:ADMIN- KPI VIOLATIONS
17277348	ADA-MWM:ADMIN- EQUIPMENT VIOLATIONS
17277175	ADA-MWM:ADMIN- DISPATCHER TYPE VIOLATIONS
17274598	ADA-MWM:ADMIN- DISPATCH AREA VIOLATIONS
17273469	ADA-MWM:ADMIN- DEPLOYMENT TYPE VIOLATIONS
17273337	ADA-MWM:ADMIN- DEPLOYMENT PART VIOLATIONS
17266273	ADA-MWM:ADMIN- DEPLOYMENT VIOLATIONS
17266153	ADA-MWM:ADMIN- ALERT TYPE VIOLATIONS
17265923	ADA-MWM:ADMIN- CREW TYPE VIOLATIONS
17265913	ADA-MWM:ADMIN- LOCATION VIOLATIONS
17259160	ADA-MWM: ERROR: NO ALT TEXT SPECIFIED (IMAGE-1/ IMAGE-2/IMAGE-3) FOUND ON EXP/COL
17254442	ADA-MWM:ADMIN- TASK TYPE VIOLATIONS
17070247	ABILITY TO DISABLE SHIFTS IN SCHEDULER
17040525	MAKE CLUSTERMOVE SHUFFLER WORK FOR BUCKETS
16966406	IT3: ACTIVITY ASSIGNMENT COMPLETION INFO NOT SHOWN CORRECTLY FOR WORK-DONE ACT
16828806	SITE MATCHING PROBLEM WHEN SAME SITE HAS ACTIVITIES WITH DIFFERENT LAT/LONG
16670185	IT1:THE STATUS DATETIME FIELD IS ABSENT IN THE RECORD INFO SECTION FOR A COMPANY

16523230	UNABLE TO MANUALLY ADD SITE ID TO AN ACTIVITY
16420410	MANUAL DISPATCH OF DEPOT-BASED TASK.
16406779	CONTRACTOR TYPE SEARCH VISIBLE IN CONTRACTOR AND CAPACITY QUERY FILTER MAPS
16162387	IMPROVED C++ COMPILER CHECKS
13993956	LTAB: ASSIGNED ACTIVITY OUTSIDE STH HORIZON IS ACQUIRED BY ST SCHEDULER
13802125	APPOINTMENT BOOKING REQUEST BEYOND LONG TERM HORIZON
13591504	NEED TO EXPOSE TOTAL CALCULATED TRAVEL TIME AND DISTANCE ON SHIFT SCHEDULE
13241065	SCHEDULER: REDESIGN SITE-HANDLING
13240941	SCHEDULER: REMOVE SAME-COORDINATE REQUIREMENT ON SITES

Appendix E

Oracle Utilities Mobile Workforce Management Fixes

The following table lists the Oracle Utilities Mobile Workforce Management fixes included in this release:

19607745	COPY OF BUG 19556081 - POSTPONED ACTIVITY PREVENTS ACTIVITIES BEING ASSIGNED.
19582939	FIX UTILITY ASSIGNMENT DISPLAY SECTIONS ON SERVER SIDE UI MAP
19473655	MODIFIED- ERT BADGE NUMBER,ERT MODEL ARE NOT DISPLAYED ON COMPLETING ACTIVITY
19473595	PAYMENT AMOUNT ACCEPTING NEGATIVE VALUE
19472065	INVALID ACTION TAKEN VALUES SHOWING ON WM MDT
19458887	COLLECTION COMPLETION ALIGNMENT IS NOT PROPER.
19434945	NEW METER DETAIL SECTION SHOWING ON MDT FOR REMOVE ERT ACTIVITY TYPE
19425355	NEW METER DETAILS SHOULD SHOW EXISTING BADGE NUMBER WITH CHANGE BUTTON-NON MDT
19393724	CONCURRENCY ERROR WHILE COMPLETING INSTALL ERT ACTIVITY ON MDT
19373393	COPY BUG 19277976 RESOURCE MAY NOT BE PART OF MORE THAN 1 NON-CNCL SHFT
19373115	UNABLE TO COMPLETE COLLECTIONS CUT FOR NON PAYMENT METER ACTIVITY - NON MDT FLOW
19318168	INCORRECT SKILL FORMAT IS BEING RECEIVED FROM MWM
18724783	COPY OF BUG 17617837 - SHIFT MAINTAIN CREW ALLOCATION NOT VERY USABLE
18413359	COPY OF 18324161 - STORE PICKUP IND ON ASGN FOR PERFORMANCE IMPROVEMENTS-M2 CHGS
18323926	COPY OF 18283803 - IMPROVE PERFORMANCE OF MBL QUERIES USING STATUSCLASS-M2 CHGS

18278683	COPY OF BUG 18241201 - ADD GPS BUSINESS SERVICE SHOULD FIRST VERIFY IF RECOR
18264124	COPY 2.2 BUG 18263900 - M2 - SUPPORT ABILITY TO UNHOLD AN ACTIVITY BY HOST
18251269	DUPLICATE ENTRY OF "ORACLE UTILITIES MOBILE WORKFORCE MANAGEMENT" IN ONLINE HELP
18102597	M2 ACTIVITY SCREEN DOES NOT SHOWS A MESSAGE THAT INDICATES THE COMPLETION
17657635	SYNC ERROR FOR FA WITH ASSIGNMENT STATUS - INCOMPLETE
17579270	MWM 2.2 DOCUMENTATION SHOULD INCLUDE CLUSTER SETUP GUIDELINES
17498602	COPY OF BUG 17498342 - M2- ELIMINATE RSI AND SYNC REQUEST CONCURRENCY
17368381	SCHED REGISTRY "NO SUCH ACTIVITY" WHERE STOP GEOCODE VARIES FOR COMMON ADDRESSES
16910366	ALLOW TO CONFIGURE ACTIVITY-SHIFT COMPATIBILITY DISTANCE FROM RPS

Appendix F

Common Maintenance Activities

This appendix lists frequently-used commands that you use to perform common maintenance activities, such as starting and stopping the environment and thread pool worker, modifying the configuration items.

Run the following commands to perform these common tasks:

To Initialize the Environment

1. Go the directory <install_dir>/bin.
2. Run the following command:

   UNIX:

   ```
   ./splenviron.sh -e <Env_Name>
   ```

   Windows:

   ```
   splenviron.cmd -e <Env_Name>
   ```

To Start the WebLogic Server

1. Initialize the environment.
2. Run the following command:

   UNIX:

   ```
   ./spl.sh start
   ```

   Windows:

   ```
   spl.cmd start
   ```

To Stop the Batch Server

1. To stop the BatchScheduler:

   UNIX:

   ```
   cd $SPLEBASE/bin
   batchscheduler.sh stop
   ```

   Windows:

   ```
   cd %SPLEBASE%\bin
   batchscheduler.cmd stop
   ```

To Start the Batch Scheduler

1. Run the following command:

UNIX:

```
cd $SPLEBASE/bin
nohup batchscheduler.sh NodeID > /tmp/batchscheduler.log 2>&1 &
```

Windows:

```
cd %SPLEBASE%\bin
batchscheduler.cmd NODEID
```

Note: Batchscheduler is a wrapper over TPW. You can also pass regular TPW arguments to batchcscheduler. Node ID parameter is now no longer used in v2.2.0.1 but is retained for backward compatibility.

To Stop the Batch Scheduler

To stop the batch scheduler

UNIX:

```
cd $SPLEBASE/bin
batchscheduler.sh stop
```

Windows:

```
cd %SPLEBASE%\bin
batchscheduler.cmd stop
```

To Check Whether the BatchScheduler is running:

To check whether the batch scheduler is running

UNIX:

```
cd $SPLEBASE/bin
batchscheduler.sh check
```

Windows:

```
cd %SPLEBASE%\bin
batchscheduler.cmd check
```

To Modify the Configuration Values

1. Initialize the environment.
2. Run the following command:

   UNIX:

   ```
   ConfigureEnv.sh
   ```

   Windows:

   ```
   configureEnv.cmd
   ```

   The configuration utility launches menu items. Select any Menu option.
3. Change the menu values.
4. After you change the menu values, press P to write the changes to the configuration file.
5. To apply the changes to the environment, run the initial setup script:

   ```
   InitialSetup.sh,
   ```

To Modify the Advanced Menu Option Values

1. Initialize the environment.

The configuration utility launches menu items.

2. Run the following command:

   UNIX:

   ```
   ConfigureEnv.sh -a
   ```

   Windows:

   ```
   configureEnv.cmd -a
   ```

3. Select any menu option.
4. Change the menu values.
5. To apply the changes to the environment, run initial setup script:

   ```
   InitialSetup.sh
   ```

Appendix G

User Documentation

This section provides instructions for installing the Oracle Utilities Mobile Workforce Management user documentation that is supplied with the system. Oracle Utilities Mobile Workforce Management user documentation is provided in PDF format for printing.

The documentation is also provided in HTML format located inside the Oracle Utilities Mobile Workforce Management application server installation package. It is automatically installed and can be launched from the user interface. The files are under the applications directory packaged in the file named help.war. User documentation is provided in English (ENG). The documentation material is divided into the following subdirectories underneath the language directory:

- M1: Oracle Real-Time Scheduler User Guide
- M2: Oracle Utilities Mobile Workforce Management User Guide
- F1: Oracle Utilities Application Framework Administration and Business Process Guides

Installing Stand-Alone Online Help

You can also use the Oracle Utilities Mobile Workforce Management online help in stand-alone mode (that is, you do not have to launch it from the Oracle Utilities Mobile Workforce Management application or access it on the application server).

To install the help for stand-alone operation, copy the help.war from the Oracle Utilities Mobile Workforce Management server (environment) or from the installation package to the server or machine on which you want to access the help. If you want to copy the file from any installed environment, you can locate the file in the $SPLEBASE/splapp/applications directory on the server.

Unzip the help.war file to any directory on your machine. To launch the Oracle Utilities Mobile Workforce Management help in stand-alone mode, open the SPLHelp.html file (located inside the language directory that you wish to use).

> **Note:** Do not change the subdirectory names. The documents use relative path names to link to other documents. Changing the subdirectory names will result in broken links.

Customizing Help for Stand-Alone Operation

You can customize the SPLHelp.html file to open to the file and topic that you most frequently use. To do so, edit the SPLHelp.html file and change the DEFAULT_BOOKMARK to the desired location. The default DEFAULT_BOOKMARK is 'helpHome.html'.

Installing Stand-Alone Help Under Web Server

You can also install Oracle Utilities Mobile Workforce Management online help as a stand-alone web application. You can use any web application server, such as WebLogic. Configure the configuration file for your web application server to use web application help.

For example,

- For WebLogic, configure config.xml file for deployed application Name="help"with URI="help.war" and set WebServer DefaultWebApp="help"

Access the documentation from the browser by the following URL :

http://<host name>:<port name>/<WebContext>/<Lang>/SPLHelp.html

where <hostname>:<portname> is the URL of the web server, <Web Context> is the root web context name specified during web application server configuration, <Lang> is the name of the language directory, for example, ENG.

> **Note:** Standalone online help files are not automatically updated when changes are made to the help files on the application server. You will have to re-install the stand-alone online help files.

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