Oracle® WebLogic Communication Services

Installation Guide

11*g* Release 1 (11.1.1)

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Contents

Preface

This preface contains the following topics:

- Audience
- Documentation Accessibility
- Related Documents
- Conventions

Audience

This guide is intended for system administrators and developers who want to install and use Oracle WebLogic Communication Services.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at
`http://www.oracle.com/us/corporate/accessibility/index.html`.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit `http://www.oracle.com/support/contact.html` or visit `http://www.oracle.com/accessibility/support.html` if you are hearing impaired.

Related Documents

For more information, see the following documents:

- *Oracle WebLogic Communication Services Administrator's Guide*
- *Oracle WebLogic Communication Services Developer's Guide*
- *Oracle Communicator User's Guide*
- *Oracle Fusion Middleware 11g Release Notes*

Conventions

The following text conventions are used in this document:

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

1

Product and Installation Overview

This chapter describes Oracle WebLogic Communication Services (OWLCS), and recommended topologies in the following sections:

- Section 1.1, "Product Overview"
- Section 1.2, "Installation Prerequisites"
- Section 1.3, "Order of Installation"
- Section 1.4, "Installation Topologies"
- Section 1.5, "What Components are Installed"

1.1 Product Overview

For information about the features and capabilities of Oracle WebLogic Communication Services, see *Oracle WebLogic Communication Services Administrator's Guide*.

1.1.1 New in this Release

This release of Oracle WebLogic Communication Services includes enhancements and new features. To read about new and improved features, see Oracle Technology Network.

1.2 Installation Prerequisites

This section describes prerequisites for installing OWLCS and for using specific OWLCS functionality.

1.2.1 System Requirements

To install OWLCS your system must meet the following requirements:

- Oracle RDBMS Server 11.1.0.7 or Oracle RDBMS Server 10.2.0.4.

  > **Note:** Oracle Database 10*g* Express Edition (10.2.0.1) may be used, but it is not a production Oracle database, and may only be used in a development environment.

- Recommended for development purposes only: Microsoft Windows 2000 with Service Pack 3 or above, Microsoft Windows Server 2003 (32-bit) with Service Pack 1 or above, or Microsoft Windows XP Professional with Service Pack 2.

> **Note:** For a list of supported platforms, see *Oracle WebLogic Communication Services Administrator's Guide.*

- JRockit SDK 1.6

> **Note:** When you start Oracle Universal Installer (`runInstaller` or `setup.exe`) you can specify -jreLoc `<jdk path>` so that Oracle Universal Installer will not prompt you to provide a jdk. For example:
> `setup.exe -jreLoc c:\jdk1.6.5`

1.2.2 Port Requirements

OWLCS requires the use of ports for TCP and UDP communications. See *Oracle WebLogic Communication Services Administrator's Guide* for information on how to reconfigure port numbers following installation.

Table 1–1 lists the default ports used by OWLCS.

Table 1–1   Default Ports

Port	Port Number
SIP	5060
SIPS	5061
Admin Server HTTP	7001
Admin Server HTTPS	7002
Managed Server HTTP	8001
Managed Server HTTPS	8002

1.2.2.1 Checking if a Port is in Use

To check if a port is being used in Windows, you can run the netstat command as follows:

C:\> **netstat -an** | **find** "*portnum*"

Note that you need double quotes around the port number.

To check if a port is being used; (in UNIX) you can run the `netstat` command as follows:

`netstat -a | grep portnum`

1.3 Order of Installation

Installation and configuration of Oracle WebLogic Communication Services is accomplished by using the following installers and tools: Repository Creation Utility (RCU), OWLCS Base Platform Installer, OWLCS Installer, WebLogic Server (WLS) Configuration Wizard. The following chapters detail the steps you must take to install and configure these components.

1.4 Installation Topologies

Oracle WebLogic Communication Services can be installed in the following installation modes:

- All-in-One Managed Server
- All-in-One Administration Server
- Enterprise Deployment Topology

1.4.1 All-in-One Administration Server

All OWLCS components are deployed on an Administration Server within a domain on a physical machine. There are no managed servers. Configuration and management of OWLCS components is done using the same Administration Server.

All-in-One Administration Server is not meant to be a production environment, rather a test and evaluation environment. It does not include High Availability functionality.

1.4.2 All-in-One Managed Server

All OWLCS components are deployed on a Managed Server within a domain on a physical machine. An Administration Server installed on the same domain is used to configure and manage OWLCS components.

All-in-One Managed Server *could* be used in a production environment when high availability is not required. It does not include High Availability functionality.

1.4.3 Enterprise Deployment Topology

This is the minimal recommended HA topology for Enterprise Deployment for OWLCS. OWLCS components are separated as SIP Infrastructure, Services and Presence components. Each group of components is deployed within its own domain on two different machines.

Enterprise Deployment Topology is meant for production enterprise installations.

1.5 What Components are Installed

To learn about the components installed in each of the installation types, see *Oracle WebLogic Communication Services Administrator's Guide*.

2

Creating Database Schemas

This chapter details the steps required to install Repository Creation Utility (RCU) and use it to create database schemas to use with Oracle WebLogic Communication Services. Topics include:

- Section 2.1, "Install RCU"
- Section 2.2, "Create Database Schemas using RCU"

2.1 Install RCU

RCU should already be installed on your computer. You use it to create schemas for OWLCS. You can reuse an existing database schema, or you can create a new one. If you are going to reuse an existing database schema, you can go on to the following chapter Chapter 3, "Installing Oracle WebLogic Communication Services Base Platform".

2.2 Create Database Schemas using RCU

Follow these steps to create new schemas:

> **Note:** RCU is available only on Linux and Windows platforms. Use Linux RCU to install for UNIX supported databases and Windows RCU for supported Windows databases

> **Note:** You can skip this step if database schema has already been created. You can reuse the schema you've already created; ensure that you use the same schema prefix when entering database information while configuring data sources in subsequent steps. If you are skipping this step, ensure that you have created all component schemas needed by OWLCS, namely: Presence, User Messaging, Subscriber Data Service, Location Service and OWSM MDS Schema.

1. Navigate to the directory into which RCU is installed. For example:

   UNIX: `$rcuHome/bin/rcu`

   Windows: `<rcuHome>\BIN`

   where `$rcuHome` is the directory in which RCU is installed.

2. Start the application:

UNIX: `./rcu`

Windows: `rcu.bat`

The *Repository Creation Utility Welcome* screen appears.

3. Click **Next**. The *Create Repository* screen appears.

Figure 2–1   Create Repository screen
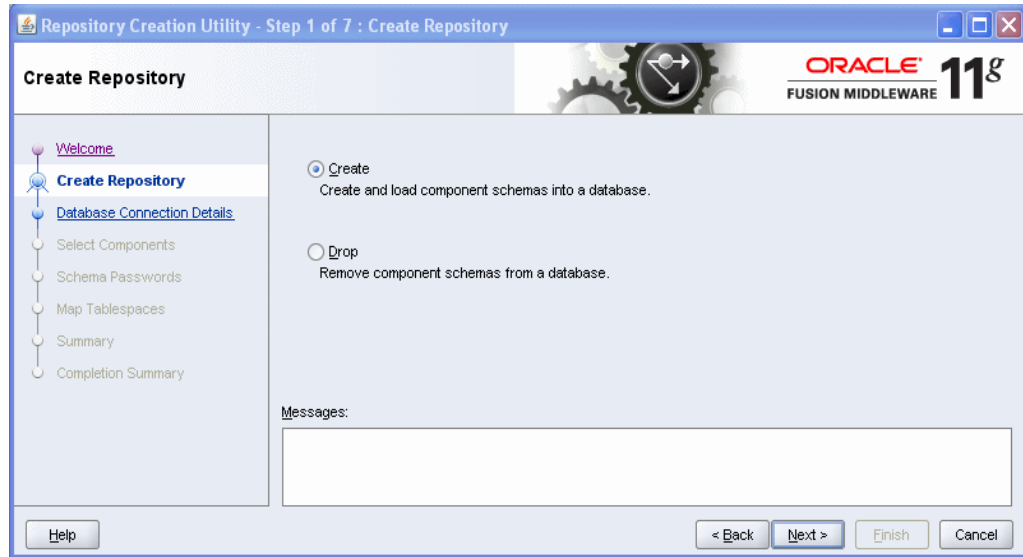
4. Select *Create*, then click **Next**. The *Database Connection Details* screen appears. For simplicity, many users use their sys name here. Enter database details in the fields provided (*Database Type, Host Name, Port, Service Name, Username, Password, Role*).

Figure 2–2   Database Connection Details screen

5. Click **Next**.The Installer checks prerequisites.

> **Note:**   In general, users will be using database servers that are configured to use UTF-8 encoding. If you are not using a database server configured to use UTF-8 encoding, then a warning message appears informing you that your database is not using UTF-8 format by default. Click **Ignore** and continue with the installation.

When the prerequisite checks are complete, click **OK**. Click **Next**. The Components screen appears. Select OWLCS (all necessary [5] schemas will be selected, including UMS).

Figure 2–3   Components screen

6. Click the **Create a new prefix** option and choose a schema prefix (such as *OWLCS*).

7. Check the checkbox in front of *WebLogic Communication Services*. OWLCS and accompanying components are automatically selected for you (*Metadata Services, Presence, SIP Infrastructure Subscriber Data Services SIP Infrastructure Location Service, and User Messaging Service*). Ensure that those five components are selected before proceeding. If any of those five components are not selected, select them manually. Then, click **OK** when completed.

8. Click **Next**. The *Schema Password* screen appears.

Figure 2–4   Schema Passwords screen

9. Select **Use same passwords for all schemas**.

10. Enter your password in the field provided and confirm it.

11. Click **Next**. The *Map Tablespaces* screen appears. You click **Manage Tablespaces** when you want to modify existing tablespaces.

Figure 2–5   Map Tablespaces screen
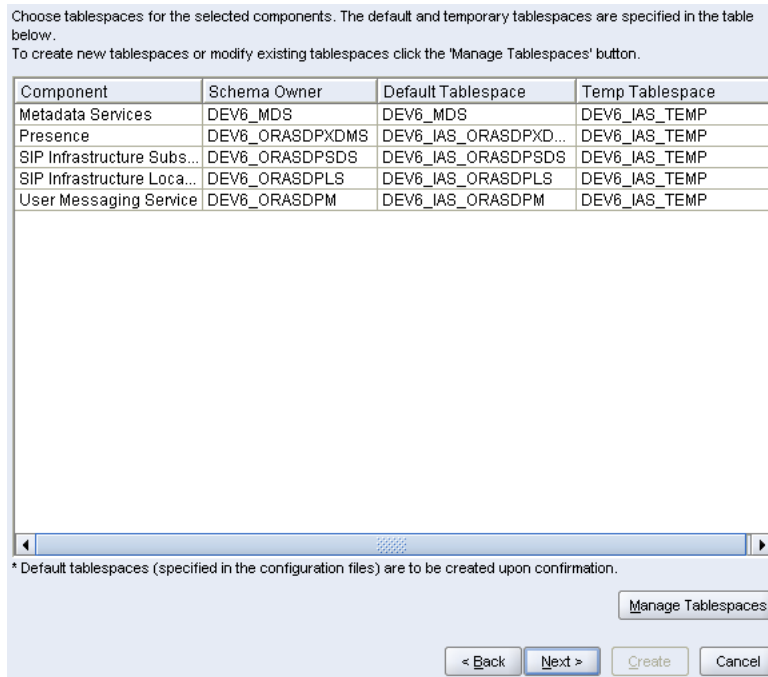
12. For this installation, click **Next**. A Repository Creation notification will appear. Click **OK**. Tablespaces are created, and the progress will be displayed in a pop-up notification. When the operation is completed, click **OK**. The *Summary* screen appears.

Figure 2–6   Summary screen
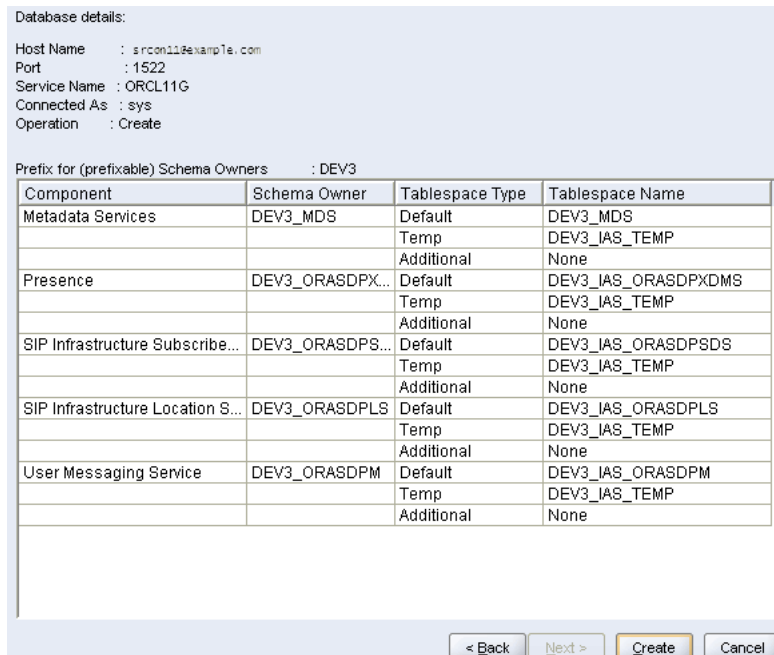
13. Click **Create**. The schema is created. A Completion Summary screen appears.

Figure 2–7   Completion Summary screen

14. Click **Close**.

3

Installing Oracle WebLogic Communication Services Base Platform

This chapter describes how to install servers using the Oracle WebLogic Server installer, and contains the following section:

- Section 3.1, "Installing Oracle WebLogic SIP Server"

These installation instructions are written using UNIX syntax and assume a bash shell. You can adapt them for your shell on UNIX or use the corresponding Microsoft Windows commands and syntax when installing on Microsoft Windows.

3.1 Installing Oracle WebLogic SIP Server

Perform the following steps to install Oracle WebLogic Server and a SIP Servlet Container as an All-in-One Administration Server:

1. Give executable permission on the installer file (if needed).

2. Run one of the following commands, depending on your operating system. For example:

    - On Linux: `./owlcs10310_linux32.bin`

    - On Windows: `owlcs10310_win32.exe`

    The installation files are extracted and the *Welcome* screen appears.

3. On the *Welcome* screen click **Next**. The *Choose Middleware Home Directory* appears.

    > **Note:** The *Middleware Home Directory* is the root directory for the OWLCS Base Platform installation. *Middleware Home Directory* is referred to as MW_HOME in this book. When you see MW_HOME or $MW_HOME, that means the absolute path to your Middleware Home directory.

4. In the *Choose Middleware Home Directory* screen, select **Create a New Middleware Home**.

5. Enter the absolute path to the middleware home.

6. Click **Next**. The *Register for Security Updates* screen appears.

7. In the *Register for Security Updates* screen you can optionally enter the following:

    - An e-mail address for receiving updates on security issues (recommended).

- Select the checkbox and enter your My Oracle Support password to receive security updates through My Oracle Support. For more information, see http://www.oracle.com/support/policies.html.

8. Click **Next**. The *Choose Install Types* screen appears.

9. On the *Choose Install Types* screen select **Typical**. Click **Next**. The *Choose Product Installation Directories* screen appears.

10. Though you can change locations, Oracle Corporation recommends that you use the default locations whenever possible. Click **Next**.

11. If on a Windows operating system, the *Choose Shortcut Location* screen appears. If you so choose, select the **All Users** Start Menu folder and click **Next**. The *Installation Summary* screen appears.

12. On the *Installation Summary* screen, click **Next**.

13. On the *Installation Complete* screen click **Next**.

    The installation is complete. Perform the procedure described in Chapter 4, "Install Oracle WebLogic Communication Services".

4

Install Oracle WebLogic Communication Services

This chapter describes the installation of Oracle WebLogic Communication Services. These procedures are performed *after* Oracle WebLogic Communication Services Base Platform has already been installed as described in the preceding chapters.

There are three types of installation topologies:

- All-in-One Administration Server
- All-in-One Managed Server
- Enterprise Deployment (see *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle WebCenter* for more information and installation procedures)

This chapter contains the following topic:

- Section 4.1, "Installing OWLCS Components"
- Section 4.2, "Logging"

4.1 Installing OWLCS Components

Perform the following steps to install SIP Infrastructure and Presence components for the Administration Server:

1. Navigate to the `OWLCS` directory on your installation media or staged installation directory, and run one of the following commands, depending on your operating system:

   - UNIX: `./owlcs/Disk1/runInstaller`
   - Windows: `owlcs\Disk1\setup.exe`

2. Enter `<absolute path to middleware home>/jdk160_11` when asked to specify JRE/JDK location. This will start the Oracle Universal Installer for OWLCS.

   > **Note:** The Java VM that you use here to run the installation process is not related to the Java VM that will be used by OWLCS at runtime. Selecting Sun JDK here does not preclude you from using JRockit at runtime.

3. On the *Welcome* screen click **Next**. The *Prerequisites Checklist* appears.

4. In the *Prerequisites Checklist* screen, verify that a check mark in the *Status* column appears for each of the prerequisites. If a failure notification appears, you must correct the problem (ensure that the operating system and service packs are correct, and the memory is adequate), then click **Continue**.

Figure 4–1 Prerequisite Checks screen
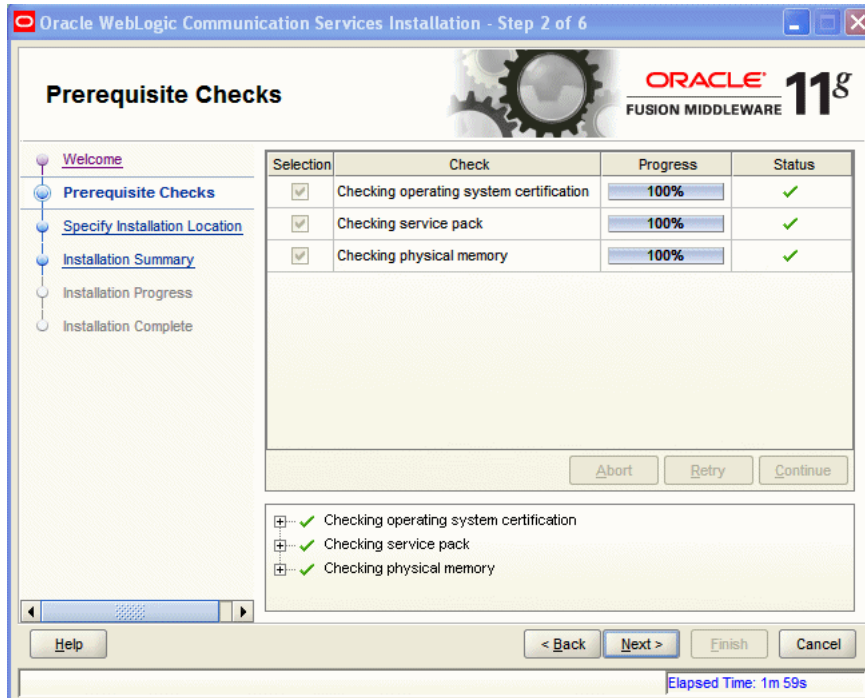
5. Click **Next**. The *Specify Installation Location* screen (Figure 4–2) appears. Enter (or select from the drop-down menu) the following:

- Oracle Middleware Home: `<absolute path of Oracle Middleware home>`

- Oracle Home Directory: `as11gr1wlcs`

Note: The Oracle Home Directory (under your Oracle Middleware Home directory) is the location into which the OWLCS components are installed.

Figure 4–2 Specify Installation Location screen
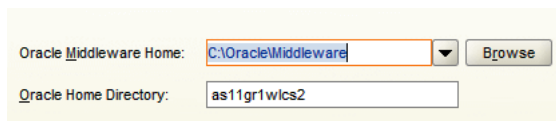
6. Click **Next**. The *Installation Summary* screen appears.

7. On the *Installation Summary* screen, click **Install**. The *Installation Complete* screen appears.

8. On the *Installation Complete* screen, click **Finish**.

This will close the installer and display a dialog asking you to launch the Oracle WebLogic configuration wizard. Click **Yes**.

> **Note:** If you selected *No*, you can launch the configuration wizard as follows:
>
> - On Microsoft Windows: `MW_HOME\as11gr1wlcs\common\bin\config.cmd`
>
> - On UNIX: `$MW_HOME/as11gr1wlcs/common/bin/config.sh`

You can now configure the server using the procedure in Chapter 5, "Configuring Oracle WebLogic Communication Services".

4.2 Logging

The default log level is the base log level: *Notification:1*. All logs are written to a single file at the following location:

```
MW_HOME/user_projects/domains/base_
domain/servers/<server>/logs/<servername>-diagnostic.log
```

For more information on logging, see *Oracle WebLogic Communication Services Administrator's Guide*.

5

Configuring Oracle WebLogic Communication Services

This chapter describes how to install and configure the Oracle WebLogic Communication Services in different topologies, using the *Oracle WebLogic Server Configuration Wizard*.

You only need to configure one of the topologies in this chapter. If you are installing OWLCS All-in-One Managed Server, then you only need to perform the actions in that section. To configure an Enterprise Deployment topology, then follow the instructions in that section.

It contains the following sections:

- Section 5.1, "Configuring an All-in-One Managed Server"
- Section 5.2, "Configuring an All-in-One Administration Server"
- Section 5.3, "Configuring OWLCS Enterprise Deployment"
- Section 5.4, "Uninstalling OWLCS Components"

5.1 Configuring an All-in-One Managed Server

After completing the installation (as described in the previous chapter) the installer will be closed and the Quickstart tool started.

Figure 5–1   OWLCS All-in-One Managed Server
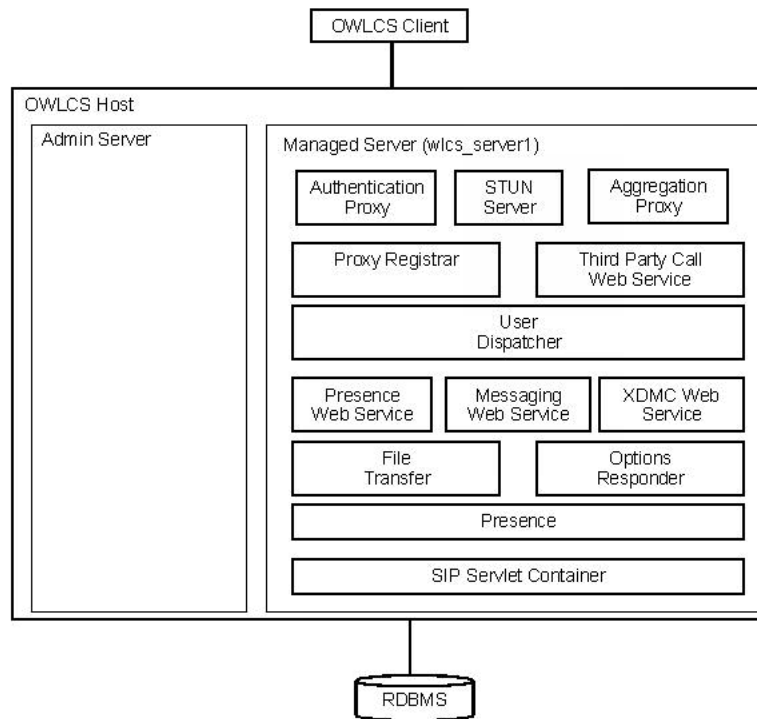
Perform the following steps to configure an All-in-One Managed Server:

1. Click the **Start the configuration wizard** link to start the Oracle WebLogic Server Configuration Wizard. The wizard starts, and the *Welcome* screen appears.

2. In the *Welcome* screen select **Create a new WebLogic domain**.

3. Click **Next**. The *Select Domain Source* screen appears.

4. In the *Select Domain Source* screen perform the following steps:

   - Select **Generate a domain configured automatically to support the following products**.

   - Check **Oracle WebLogic Communication Services - 11.1.1.0 (as11gr1wlcs1)**. Other required components are automatically selected components.

5. Click **Next**. The *Configure Administrator Username and Password* screen appears.

6. Make the following selections in the *Configure Administrator Username and Password* screen:

   - Choose a User Name (such as: *weblogic)*

   - Choose a User Password.

   - Confirm User Password.

   - Description (for example: *This user is the default administrator)*

7. Click **Next**. The *Configure Server Start Mode and JDK* screen appears.

8. In the *Configure Server Start Mode and JDK* screen (Figure 5–2), select the Start Mode and JVM of your choice (Production Mode and JRockit are recommended for Production deployments).

Figure 5–2 Configuring Server Start Mode and JDK
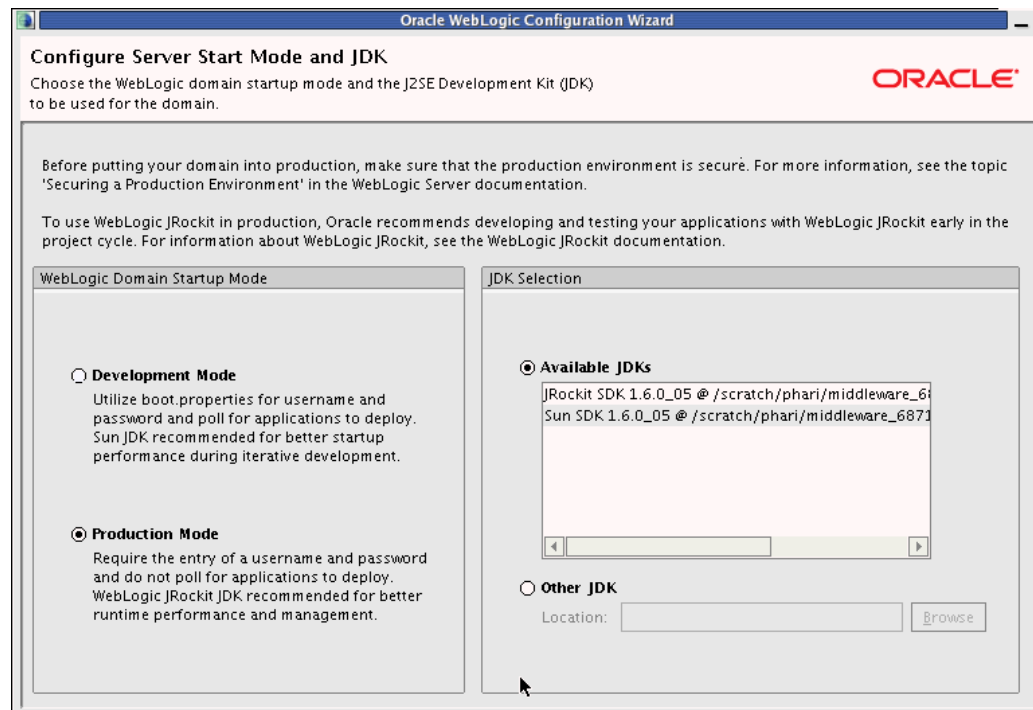
9. Click **Next**. The *Configure JDBC Component Schema* screen appears.

10. In the *Configure JDBC Component Schema* screen, check all component schemas, fill common database information (everything except *Schema Owner*).

11. Check one datasource at a time and enter the *Schema Owner*. For example:

Table 5–1   Schema owners

Component Schema	schema_owner
User Messaging Service	*<prefix>*_orasdpm
Location Service	*<prefix>*_orasdpls
Subscriber Data Service	*<prefix>*_orasdpsds
Presence	*<prefix>*_orasdpxdms
OWSM MDS Schema	*<prefix>*_mds

12. Click **Next**. The *Test Component Schema* screen appears.

13. In the *Test Component Schema* screen, all data source connections are tested. Recheck if there is a failure. If there aren't any, click **Next**. The *Configuration Summary* screen appears.

14. In the *Configuration Summary* screen click **Create**.

15. Click **Done**.

5.1.1 Using Pre-configured Machine Realm

OWLCS is pre-configured with realm *example.com*. If you want to use this realm, modify the machine's hosts file, pointing *example.com* to the local IP to enable the server to lookup and resolve *example.com*. The absolute path to that file is:

UNIX: `/etc/hosts`

Windows: `C:\WINDOWS\system32\drivers\etc\hosts`

If, however, you want to use a different realm (this will be the typical situation), then you must change the realm. See Section 5.1.2, "Changing Realm from example.com" for instructions on changing the realm.

5.1.2 Changing Realm from example.com

The out-of-the-box realm (`example.com`) should be changed to reflect the realm and domain of your deployment. Make these modifications to the realm and domain:

- SIP Server

  1. Login to the Console; for example:
     `http://weblogic.example.com:7001/console`

  2. Click the **SipServer** link on left navigation pane.

  3. In the **Configuration->General** tab, scroll down to *Domain Aliases:* and enter the realm you want to choose (for example: `myrealm.com`).

- Digest Authentication

  1. Login to the Console; for example:
     `http://weblogic.example.com:7001/console`

  2. Click **Security Realms** on the left navigation pane.

  3. Click **myRealm**.

  4. Click the **Providers** tab.

  5. Click **DigestIdentityAsserter**.

  6. Click **Provider Specific** tab.

  7. Scroll down to *DigestRealmName* attribute and choose the appropriate realm (for example: `myrealm.com`).

- Aggregation Proxy

  1. Start JConsole as outlined in Section 5.3.5, "Starting JConsole to Modify MBeans on UNIX".

     ```
     Use $DOMAIN_HOME is the directory of your domain, (that is, $MW_HOME/user_
     projects/domains/base_domain)
     <admin server host>: The host name of the machine on which you installed
     the server
     <admin server port>: The port on which the admin server is listening
     ```

     In our example, <admin server port> is *7001*.

  2. Click the **MBeans** tab.

  3. Change value of the following mbean attribute for AggregationProxy mbean:

     `Realm = <yourcompany>`

- P-Asserted Identity URI for Third-Party Call Control

  1. Start JConsole, using the following parameters on *Machine 1*, as outlined in Section 5.3.5, "Starting JConsole to Modify MBeans on UNIX".

     ```
     Use $DOMAIN_HOME is the directory of your domain, i.e, $MW_HOME/user_
     projects/domains/base_domain
     ```

```
<admin server host>: The host name of the machine on which you installed
the server
<admin server port>: The port on which the admin server is listening
```

In our example, <admin server port> is *7001*.

2. Click the **MBeans** tab.

3. Change value of the following mbean attribute for ThirdPartyCall mbean:

   ```
   PAssertedIdentityURI=sip:tpcc.user@<your realm>
   ```

Configure Machine with the new realm:

– UNIX: `/etc/hosts`

– Windows: `C:\WINDOWS\system32\drivers\etc\hosts`

5.1.3 Start the Administration Server

To start the Administration Server:

1. Navigate to `MW_HOME/user_projects/domains/base_domain/bin`

2. Run this command:

   UNIX: `./startWebLogic.sh`

   Windows: `startWebLogic.cmd`

5.1.4 Start the Managed Server

To start the Managed Server:

1. Open a new terminal

2. Navigate to `MW_HOME/user_projects/domains/base_domain/bin`

3. Run this command:

   UNIX: `./startManagedWebLogic.sh wlcs_server1`

   Windows: `startManagedWebLogic.cmd wlcs_server1`

4. Enter the Administrator user name and password.

Verify that the Managed Server is running when you see the console message:
`<Server started in RUNNING mode>`. Production Mode will require you to
enter credentials when starting.

5.1.5 Provisioning Test Users

To confirm that the installation was successful, you should create a few test users to
test out OWLCS using Oracle Communicator.

1. Start sash:

   ■ On UNIX: `$DOMAIN_HOME/bin/launch_sash.sh -p 8001`

   ■ On Windows: `$DOMAIN_HOME/bin/launch_sash.cmd -p 8001`

   Note: By default the managed server picks up port *8001*. If you
   configured the port to be something else, use that instead.

   ---

2. Provision the user: Run the following command; replace *alice* with *username* and example.com with *your realm*. Enter your password.

```
identity add privateId=alice publicId=sip:alice@example.com role="Location
Service" realm=yourcompany.com password=yourpassword
```

5.1.6 Testing the Installation

Perform the following procedures to test the installation:

1. Install Oracle Communicator by running the downloaded EXE file.

2. Provision a test user in OWLCS as described above (for example: *sip:alice@example.com*).

3. Create an Oracle Communicator account for *sip:alice@example.com*.

4. Login to Oracle Communicator, disregard the login pop up if it appears.

5. Click the menu button on the top left (**Settings**).

6. Choose **Preferences**.

7. Click the **Network** tab.

8. Check **Use a proxy server**, and enter the canonical host name of the load balancer in the *Address* field.

9. Do the same for *XDMS Host*. Ensure that the XDMS port is the HTTP listen port of the load balancer http pool.

10. Click **OK**.

11. Restart Oracle Communicator and log in.

12. Enter the *username* and the *password* (as chosen previously). If you can register and change your *Presence* status, the installation was successful.

You can create an account for another user similarly and add him/her as a buddy to the first user. *User1* should be able to send instant messages to *User2*, and they should be able to see each other's presence.

5.1.7 Logging

All logs are written to a single file (per server) at the following location: `MW_HOME/user_projects/domains/base_domain/servers/wlcs_server1/logs/wlcs_server1-diagnostic.log`

5.2 Configuring an All-in-One Administration Server

If you clicked **Yes** in the last screen for installing Communication services, skip Step 1 below. If you clicked **No**, then complete Step 1 below.

Figure 5–3   OWLCS All-in-One Administration Server
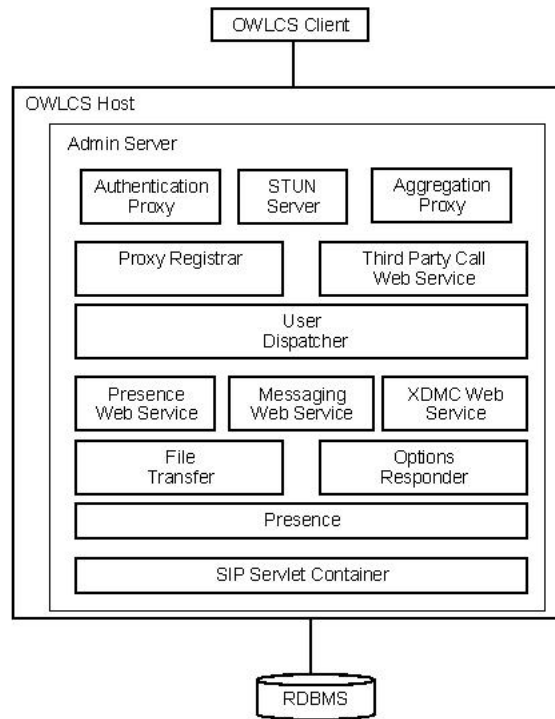
Perform the following steps to configure an All-in-One Administration Server:

1. Click the **Start the configuration wizard** link to start the Oracle WebLogic Server Configuration Wizard. The wizard starts, and the *Welcome* screen appears.

2. In the *Welcome* screen select **Create a new WebLogic domain**.

3. Click **Next**. The *Select Domain Source* screen appears.

4. In the *Select Domain Source* screen select **Base this domain on an existing template**. Click **Browse** and find this template file:
   `oracle.communications.allinoneadmin_template_11.1.1.jar`

5. Click **Next**. The *Specify Domain Name and Location* screen appears.

6. Click **Next**. The *Configure Administrator Username and Password* screen appears.

7. Enter and confirm the following in the *Configure Administrator Username and Password* screen: *admin_username and admin_password*.

8. Click **Next**. The *Configure Server Start Mode and JDK* screen appears.

9. In the *Configure Server Start Mode and JDK* screen (Figure 5–4), select the Startup Mode and Java VM of your choice.

Figure 5–4   Configuring Server Start Mode and JDK
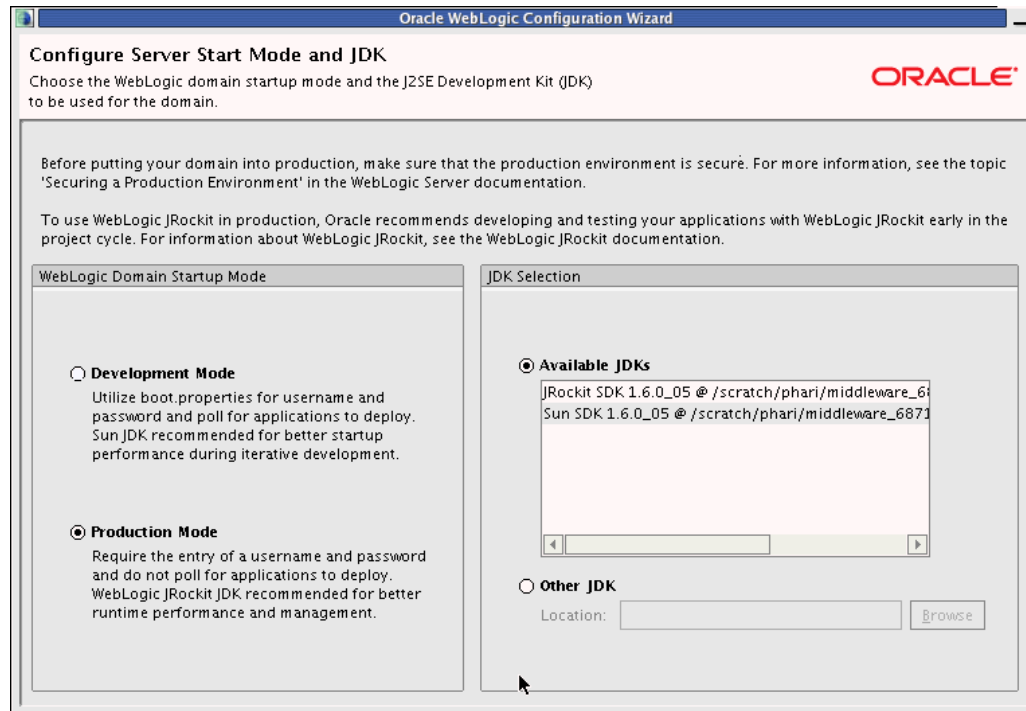
10. Click **Next**. The *Configure JDBC Component Schema* screen appears.

11. In the *Configure JDBC Component Schema* screen, check all component schemas, fill common database information (everything except *Schema Owner*).

12. Check one datasource at a time and enter the *Schema Owner*. For example:

Table 5–2   Schema owners

Component Schema	schema_owner
User Messaging Service	*<prefix>*_orasdpm
Location Service	*<prefix>*_orasdpls
Subscriber Data Service	*<prefix>*_orasdpsds
Presence	*<prefix>*_orasdpxdms
OWSM MDS Schema	*<prefix>*_mds

13. Click **Next**. The *Test Component Schema* screen appears.

14. In the *Test Component Schema* screen, all data source connections are tested. Recheck if there is a failure. If there aren't any, click **Next**. The *Configuration Summary* screen appears.

15. In the *Configuration Summary* screen click **Create**.

16. Click **Done**.

5.2.1 Using Pre-configured Machine Realm

OWLCS is pre-configured with realm *example.com*. If you want to use this realm, modify the machine's hosts file, pointing *example.com* to the local IP to enable the server to lookup and resolve *example.com*. The absolute path to that file is:

UNIX: `/etc/hosts`

Windows: `C:\WINDOWS\system32\drivers\etc\hosts`

If, however, you want to use a different realm (this will be the typical situation), then you must change the realm. See Section 5.2.2, "Changing Realm from example.com" for instructions on changing the realm.

5.2.2 Changing Realm from example.com

The out-of-the-box realm (`example.com`) should be changed to reflect the realm and domain of your deployment. Make these modifications to the realm and domain:

- SIP Server

  1. Login to the Console; for example:
     `http://weblogic.example.com:7001/console`

  2. Click the **SipServer** link on left navigation pane.

  3. In the **Configuration->General** tab, scroll down to *Domain Aliases:* and enter the realm you want to choose (for example: `myrealm.com`).

- Digest Authentication

  1. Login to the Console; for example:
     `http://weblogic.example.com:7001/console`

  2. Click **Security Realms** on the left navigation pane.

  3. Click **myRealm**.

  4. Click the **Providers** tab.

  5. Click **DigestIdentityAsserter**.

  6. Click **Provider Specific** tab.

  7. Scroll down to *DigestRealmName* attribute and choose the appropriate realm (for example: `myrealm.com`).

- Aggregation Proxy

  1. Start JConsole as outlined in Starting JConsole to Modify MBeans on UNIX.

     ```
     Use $DOMAIN_HOME is the directory of your domain, (that is, $MW_HOME/user_
     projects/domains/base_domain)
     <admin server host>: The host name of the machine on which you installed
     the server
     <admin server port>: The port on which the admin server is listening
     ```

     In our example, <admin server port> is *7001*.

  2. Click the **MBeans** tab.

  3. Change value of the following mbean attribute for AggregationProxy mbean:

     ```
     Realm = <yourcompany>
     ```

- P-Asserted Identity URI for Third-Party Call Control

  1. Start JConsole, using the following parameters on *Machine 1*, as outlined in Section 5.3.5, "Starting JConsole to Modify MBeans on UNIX".

     ```
     Use $DOMAIN_HOME is the directory of your domain, i.e, $MW_HOME/user_
     projects/domains/base_domain
     <admin server host>: The host name of the machine on which you installed
     the server
     ```

> ```
> <admin server port>: The port on which the admin server is listening
> ```
>
> In our example, <admin server port> is *7001*.

2. Click the **MBeans** tab.

3. Change value of the following mbean attribute for ThirdPartyCall mbean:

   ```
   PAssertedIdentityURI=sip:tpcc.user@<your realm>
   ```

Configure Machine with the new realm:

- UNIX: `/etc/hosts`

- Windows: `C:\WINDOWS\system32\drivers\etc\hosts`

5.2.3 Start the Administration Server

To start the Administration Server:

1. Navigate to `MW_HOME/user_projects/domains/base_domain/bin`

2. Run this command:

   UNIX: `./startWebLogic.sh`

   Windows: `startWebLogic.cmd`

Verify that the Administration Server is running when you see the console message: `<Server started in RUNNING mode>`. Production Mode will require you to enter credentials when starting.

5.2.4 Provisioning Test Users

To confirm that the installation was successful, you should create a few test users to test out OWLCS using Oracle Communicator.

1. Start sash:

   - On UNIX: `$DOMAIN_HOME/bin/launch_sash.sh`

   - On Windows: `$DOMAIN_HOME/bin/launch_sash.cmd`

   Note: By default the managed server picks up port *7001*. If you configured the port to be something else, use that instead.

   ---

2. Provision the user: Run the following command, replace *alice* with *username* and `example.com` with *your realm* (for example: `yourcompany.com`). Enter your password.

   ```
   identity add privateId=alice publicId=sip:alice@example.com role="Location
   Service" realm=yourcompany.com password=yourpassword
   ```

5.2.5 Testing the Installation

Perform the following procedures to test the installation:

1. Install Oracle Communicator by running the downloaded EXE file.

2. Provision a test user in OWLCS as described above (for example: *sip:alice@example.com*).

3. Create an Oracle Communicator account for *sip:alice@example.com*.

4. Login to Oracle Communicator, disregard the login pop up if it appears.

5. Click the menu button on the top left (**Settings**).

6. Choose **Preferences**.

7. Click the **Network** tab.

8. Check *Use a proxy server*, and enter the canonical host name of the load balancer in the *Address* field.

9. Do the same for *XDMS Host*. Ensure that the XDMS port is the HTTP listen port of the load balancer http pool.

10. Click **OK**.

11. Restart Oracle Communicator and log in.

12. Enter the *username* and the *password* (as chosen previously). If you can register and change your *Presence* status, then the installation was successful.

You can create an account for another user similarly and add him or her as a buddy to the first user. *User1* should be able to send instant messages to *User2*, and they should be able to see each other's presence.

5.2.6 Logging

All logs are written to a single file (per server) at the following location: `MW_ HOME/user_projects/domains/base_ domain/servers/AdminServer/logs/AdminServer-diagnostic.log`

5.3 Configuring OWLCS Enterprise Deployment

This section describes how to complete the installation and configuration for the high-availability installation of OWLCS. The Enterprise Deployment topology is the OWLCS high-availability deployment solution.

5.3.1 Introducing Enterprise Deployment Topology

The Enterprise Deployment Topology supports High-Availability. In the event of a failover, load balancers can continue directing traffic to functioning (available) nodes. As shown in Figure 5–5, there are three domains within each node: *wlcs_sipinfra*, *wlcs_ services* and *wlcs_presence*. They correspond to SIP Infrastructure, Services and Presence components respectively. State replication (that is, sharing of state information across two managed servers) is supported between the *wlcs_sipinfra1 engine* and *wlcs_sipinfra2 replica*. If one node goes down, the other can continue to serve existing and new requests because state information is replicated and saved on the other node.

Figure 5–5   Enterprise Deployment topology
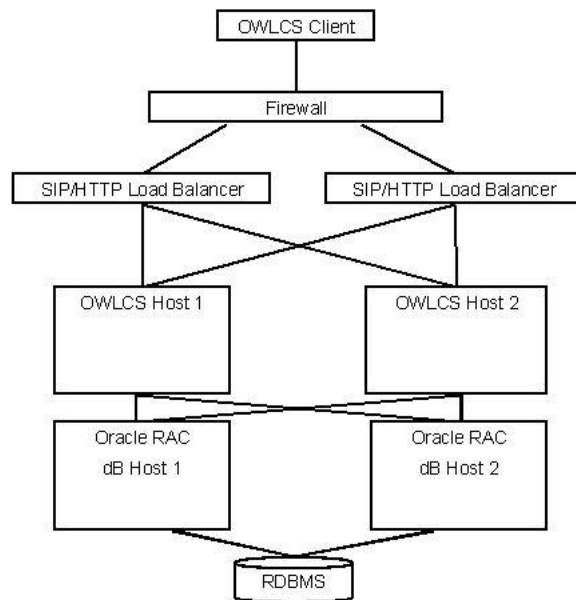
5.3.2 Prerequisites

Ensure that your environment meets the following prerequisites:

- Oracle RDBMS should be installed and operational in an Oracle RAC environment. The supported versions are 11.1.0.7 and 10.2.0.4. Refer to the Oracle *Clusterware Installation Guide 11g Release 1 (11.1.)*, *Oracle Real Application Clusters: For 11g Release 1 (11.1)* and *Oracle Real Application Clusters Installation Guide 11g Release 1*.

- Two machines are available for installing OWLCS.

- A Load Balancer capable of routing SIP and HTTP traffic.

5.3.3 Installing Oracle WebLogic Communication Services

Installing Oracle WebLogic Communication Services consists of a number of installation tasks, described in the following sections:

- Section 5.3.3.1, "Creating Database Schema using RCU"

- Section 5.3.3.2, "Installing Oracle WebLogic Communication Services Base Platform"

- Section 5.3.3.3, "Installing OWLCS Components"

- Section 5.3.3.4, "Repeating the Installation for Machine 2"

- Section 5.3.3.5, "Configuring Load Balancers"

- Section 5.3.3.6, "Starting Servers"

- Section 5.3.3.7, "Changing Realm from example.com"

- Section 5.3.3.8, "Configuring Oracle WebLogic Communication Services"

- Section 5.3.3.9, "Provisioning Test Users"

5.3.3.1 Creating Database Schema using RCU

This section describes how to create database schema using Repository Creation Utility (RCU).

> **Note:** The procedure in this section can be skipped if the database schema has already been created. You can reuse a schema that you have already created. Remember to use the same schema prefix when entering database information while configuring the data sources as described in the procedure.
>
> If skipping this procedure, ensure that you have created all component schema required by OWLCS, specifically, the *Presence*, *User Messaging*, *Subscriber Data Service*, *Location Service*, and *OWSM MDS* schema.

Perform the following steps to create the database schema using RCU:

1. Run RCU by executing one of the following commands:

    -   On UNIX: `<rcuHome>/bin/rcu`

    -   On Windows: `<rcuHome>\BIN\rcu.bat`

        This launches the installation wizard for RCU.

2. On the Welcome screen click **Next**.

3. In Step 1 of 7 (*Create Repository*), select **Create** and then **Next**.

4. On Step 2 of 7 (*Database Connection Details*), enter the database details and click **Next**.

    > **Note:** Provide the details for any one of the RAC hosts and use the service name of the DataBase.

    > **Note:** In general, users will be using database servers that are configured to use UTF-8 encoding. If you are not using a database server configured to use UTF-8 encoding, then a warning message appears informing you that your database is not using UTF-8 format by default. Click **Ignore** and continue with the installation.

5. On Step 3 of 7 (*Components*), perform the following steps:

    -   Select **Create a new prefix**, and choose a schema prefix (such as *OWLCS*).

        > **Note:** Ensure you make note of this schema prefix; you will need to use it later in the installation.

    -   Check the checkbox in front of *WebLogic Communication Services*. OWLCS and accompanying components are automatically selected for you (*Metadata Services, Presence, SIP Infrastructure Subscriber Data Services SIP Infrastructure Location Service, and User Messaging Service*). Ensure that those five components are selected before proceeding. If any of those five components are not selected, select them manually. Then, click **OK** when completed.

6. On Step 4 of 7 (*Schema Passwords*), perform the following steps:

   ■ Select **Use same passwords for all schemas**.

   ■ Enter your password in the field provided and confirm it.

   ■ Click **Next**.

7. On Step 5 of 7 (*Map Tablespaces*), perform the following steps:

   ■ For this installation, click **Next**. A Repository Creation notification will appear.

   ■ Click **OK**. Tablespaces will be created, and the progress will be displayed in a pop-up notification.

8. On Step 6 of 7 (*Summary*), click **Create**. The schema is created. A Completion Summary screen appears.

9. On Step 7 of 7 (*Completion Summary*), click **Close**.

5.3.3.2 Installing Oracle WebLogic Communication Services Base Platform

Oracle WebLogic Communication Services Base Platform consists of Oracle WebLogic Server and a SIP server. Perform the following steps to install Oracle WebLogic Communication Services Base Platform:

1. Run one of the following commands, for example:

   ■ On Linux: `owlcs10310_linux32.bin`

   ■ On Microsoft Windows: `owlcs10310_win32.exe`

   This launches the installation wizard and the *Welcome* screen appears.

2. On the Welcome screen click **Next**.

3. On the *Choose Middleware Home Directory* screen do the following:

   ■ Select **Create a New Middleware Home**.

   ■ Enter the absolute path of Middleware Home.

   > **Note:** he *Middleware Home Directory* is the root directory for the OWLCS Base Platform installation. *Middleware Home Directory* is referred to as MW_HOME in this book. When you see MW_HOME or $MW_HOME, that means the absolute path to your Middleware Home directory.

   ■ Click **Next**.

4. On the *Register for Security Updates* screen, do the following:

   ■ Enter your e-mail address and My Oracle Support Password (recommended) to receive updates on security issues. Click **Next**.

   ■ Select the checkbox and enter your My Oracle Support password to receive security updates through My Oracle Support. For more information, see http://www.oracle.com/support/policies.html.

5. On the *Choose Install Types* screen, do the following:

   ■ Select **Typical** installation.

   ■ Click **Next**.

6. On the *Choose Product Installation Directories* screen, perform the following steps:

- Though you can change locations, Oracle Corporation recommends that you use the default locations whenever possible.

- Click **Next**.

7. On the *Choose Shortcut Location* screen (Microsoft Windows only), do the following:

- Select the **All Users** Start Menu folder.

- Click **Next**.

8. On the *Installation Summary* screen, click **Next**.

9. On the *Installation Complete* screen, click **Next**.

5.3.3.3 Installing OWLCS Components

Perform the following procedures to install Oracle WebLogic Communication Services, which includes SIP Infrastructure, Services and Presence components, for each of the domains.

1. Navigate to the `OWLCS` directory on your installation media or staged installation directory, and run one of the following commands, depending on your operating system:

- UNIX: `owlcs/Disk1/runInstaller`

- Windows: `owlcs\Disk1\setup.exe`

2. Enter `<absolute path to middleware home>/jdk160_11` when asked to specify the JRE/JDK location.

> **Note:** The Java VM that you use here to run the installation process is not related to the Java VM that will be used by OWLCS at runtime. Selecting Sun JDK here does not preclude you from using JRockit at runtime.

3. On the *Welcome* screen click **Next**. The *Prerequisites Checklist* appears.

4. In the *Prerequisites Checklist* screen, verify that a check mark in the *Status* column appears for each of the prerequisites. If a failure notification appears, you must correct the problem (ensure that the operating system and service packs are correct, and the memory is adequate), then click **Continue**.

5. Click **Next**. The *Specify Installation Location* screen appears. Enter (or select from the drop-down menu) the following:

- Oracle Middleware Home: `<absolute path of Oracle Middleware home>`

- Oracle Home Directory: `as11gr1wlcs`

> **Note:** The Oracle Home Directory (under your Oracle Middleware Home directory) is the location into which the OWLCS components are installed.

6. Click **Next**. The *Installation Summary* screen appears.

7. On the *Installation Summary* screen, click **Install**. The *Installation Complete* screen appears.

8. On the *Installation Complete* screen, click **Finish**.

   This will close the installer and display a dialog asking you to launch the Oracle WebLogic configuration wizard. Click **Yes**.

   Note: If you selected *No*, you can launch the configuration wizard as follows:

   - On Microsoft Windows: `MW_HOME\as11gr1wlcs\common\bin\config.cmd`

   - On UNIX: `$MW_HOME/as11gr1wlcs/common/bin/config.sh`

5.3.3.3.1 Installing the OWLCS SIP Infrastructure Domain Perform the following steps in the WebLogic configuration wizard you launched to install the OWLCS SIP Infrastructure domain:

1. In the *Welcome* screen select *Create a new WebLogic domain* and click **Next**.

2. On the *Select Domain Source* screen:

   - Select **Base this domain on an existing template**.

   - Navigate to:

     `$MW_HOME/as11gr1wlcs1/common/templates/application and select oracle.communications.edgsipinfra_template_11.1.1.jar`.

     Click **Open**. Click **Next**.

3. On the *Specify Domain Name and Location* screen, click **Next**.

4. On the *Configure Administrator Username and Password* screen, select a *username* and *password*.

5. On the *Configure Server Start Mode and JDK* screen, do the following:

   - Select the Start Mode and JVM of your choice (Production Mode and JRockit are recommended for Production deployments). Click **Next**.

6. Check **Configure selected component schemas as RAC**.

7. Click **Next**.

8. On the *Configure RAC Multi Data Source Component Schema* screen, do the following:

   - Select all **Multi Data Source Schema**. Enter *Service Name* and *Password*.

   - Add database hosts by clicking the **Add** button and fill-in the *Host Name*, *Instance Name* and *Port* fields.

   - Unselect all *Multi Data Source Schema*. Check one Schema at a time and type in the *Username*. For example:

Multi Data Source Schema	schema_owner
Location Service	*<prefix>*_orasdpls
Subscriber Data Service	*<prefix>*_orasdpsds
OWSM MDS Schema	*<prefix>*_mds

> **Note:** The prefix here refers to the prefix you created in
> Section 5.3.3.1, "Creating Database Schema using RCU".

9. On the *Test Component Schema* screen, all data source connection are tested. Recheck if there is a failure. If not, click **Next**.

10. On the *Select Advanced Configuration* screen, select **Managed Servers, Clusters and Machines** and click **Next**.

11. On the *Configure Managed Servers* screen, click **Next**.

12. On the *Configure SIP data-tier Managed Server Partitions* screen, click **Next**.

13. On the *Assign SIP data-tier Managed Server to Partitions* screen, click **Next**.

14. On the *Configure Clusters* screen, click **Next**.

15. On the *Configure Machines* screen, do the following:

    - Click **Add** twice to add two machines: *new_Machine_1* and *new_Machine_2*.

    - Set the *Node manager listen address* of both the machines to **All Local Addresses**.

    - Click **Next**.

16. On the *Assign Servers to Machines* screen, do the following:

    - Assign *AdminServer*, *wlsc_sipinfra1*, and *wlcs_sipinfrastate1* to *new_Machine_1*.

    - Assign *wlcs_sipinfra2* and *wlcs_sipinfrastate2* to *new_Machine_2*.

    - Click **Next**.

17. On the *Configuration Summary* screen, click **Create**.

18. Click **Done**.

    The configuration wizard closes.

5.3.3.3.2 Installing the OWLCS Services Domain Perform the following steps to install the OWLCS Services domain.

1. Run the configuration wizard, as follows:

    - Microsoft Windows: `$MW_HOME\as11gr1wlcs1\common\bin\config.cmd`

    - UNIX: `$MW_HOME/as11gr1wlcs1/common/bin/config.sh`

2. On the *Welcome* screen, select **Create a new WebLogic domain**, and click **Next**.

3. On the *Select Domain Source* screen:

    - Select **Base this domain on an existing template**.

    - Navigate to:

      `$MW_HOME/as11gr1wlcs1/common/templates/application`

    - Select:

      oracle.communications.edgservices_template_11.1.1.jar

    - Click **Open**. Click **Next**.

4. On the *Specify Domain Name and Location* screen, click **Next**.

5. On the *Configure Administrator Username and Password* screen, select a *username* and *password*.

6. In the *Configure Server Start Mode and JDK* screen, select the Start Mode and JVM of your choice (Production Mode and JRockit are recommended for Production deployments).

7. In the *Configure JDBC Component Schema* screen, check *Configure selected component schemas as RAC*.

8. Click **Next**.

9. On the *Configure RAC Multi Data Source Component Schema* screen, do the following:

- Select all **Multi Data Source Schema**. Enter *Service Name and Password*.

- Add database hosts by clicking on the **Add** button and fill-in the *Host Name*, *Instance Name* and *Port* fields.

- Unselect all **Multi Data Source Schema**. Check one Schema at a time and type in the *Username*. For example:

Multi Data Source Schema	schema_owner
Location Service	*<prefix>*_orasdpls
Subscriber Data Service	*<prefix>*_orasdpsds
OWSM MDS Schema	*<prefix>*_mds

> **Note:** The prefix here refers to the prefix you created in
> Section 5.3.3.1, "Creating Database Schema using RCU".

10. On the *Test Component Schema* screen, all data source connection are tested. Recheck if there is a failure. If not, click **Next**.

11. On the *Select Advanced Configuration* screen, select **Managed Servers, Clusters and Machines** and click **Next**.

12. On the *Configure Managed Servers* screen, click **Next**.

13. On the *Configure SIP data-tier Managed Server Partitions* screen, click **Next**.

14. On the *Configure Clusters* screen, click **Next**.

15. On the *Configure Machines* screen, do the following:

- Click **Add** twice to add two machines: *new_Machine_1* and *new_Machine_2*.

- Set the *Node manager listen address* of both the machines to *All Local Addresses*.

- Click **Next**.

16. On the *Assign Servers to Machines* screen, do the following:

- Assign *AdminServer* and *wlcs_services1* to *new_Machine_1*.

- Assign *wlcs_services2* to *new_Machine_2*.

- Click **Next**.

17. On the *Configuration Summary* screen, click **Create**.

18. Click **Done**.

The configuration wizard closes.

5.3.3.3.3 Installing the OWLCS Presence Domain Perform the following steps to install the OWLCS Presence domain:

1. Run the configuration wizard, as follows:

   - Microsoft Windows: `$MW_HOME\as11gr1wlcs1\common\bin\config.cmd`

   - UNIX: `$MW_HOME/as11gr1wlcs1/common/bin/config.sh`

2. On the *Welcome* screen, select **Create a new WebLogic domain**. Click **Next**.

3. On the *Select Domain Source* screen, do the following:

   - Select **Base this domain on an existing template**.

   - Browse to the following template:

     `$MW_HOME/as11gr1wlcs1/common/templates/application and select oracle.communications.edgpresence_template_11.1.1.jar`

     Click **Open**. Click **Next**.

4. On the *Specify Domain Name and Location* screen click **Next**.

5. On the *Configure Administrator Username and Password* screen, select a *username* and *password*.

6. On the *Configure Server Start Mode and JDK* screen, select the Start Mode and JVM of your choice (Production Mode and JRockit are recommended for Production deployments). Click **Next**.

7. In the *Configuring JDBC Data Sources* screen, check *Configure selected component schemas as RAC*.

8. Click **Next**.

9. On the *Configure RAC Multi Data Source Component Schema* screen, do the following:

   - Select all **Multi Data Source Schema**. Enter *Service Name* and *Password*.

   - Add database hosts by clicking the **Add** button and fill-in the *Host Name*, *Instance Name* and *Port* fields.

   - Unselect all **Multi Data Source Schema**. Check one Schema at a time and type in the *Username*. For example:

Multi Data Source Schema	schema_owner
Location Service	*<prefix>*_orasdpls
Subscriber Data Service	*<prefix>*_orasdpsds
Presence	*<prefix>*_orasdpxdms
OWSM MDS Schema	*<prefix>*_mds

> **Note:** The prefix here refers to the prefix you created in Section 5.3.3.1, "Creating Database Schema using RCU".

10. On the *Test Component Schema* screen, all data source connection are tested. Recheck if there is a failure. If not, click **Next**.

11. On the *Select Advanced Configuration* screen, select **Managed Servers, Clusters and Machines** and click **Next**.

12. On the *Configure Managed Servers* screen, click **Next**.

13. On the *Configure SIP data-tier Managed Server Partitions* screen, click **Next**.

14. On the *Configure Clusters* screen, click **Next**.

15. On the *Configure Machines* screen, do the following:

    - Click **Add** twice to add two machines: *new_Machine_1* and *new_Machine_2*.

    - Set the *Node manager listen address* of both the machines to *All Local Addresses*.

    - Click **Next**.

16. On the *Assign Servers to Machines* screen, do the following:

    - Assign *AdminServer* and *wlcs_presence1* to *new_Machine_1*.

    - Assign *wlcs_presence2* to *new_Machine_2*.

    - Click **Next**.

17. On the *Configuration Summary* screen, click **Create**.

18. Click **Done**.

5.3.3.4 Repeating the Installation for Machine 2

Repeat the following procedures for Machine 2:

- Section 5.3.3.2, "Installing Oracle WebLogic Communication Services Base Platform"

- Section 5.3.3.3, "Installing OWLCS Components"

> **Note:** Ensure that you use exactly the same MW_HOME path as you used for Machine 1.
>
> For example, if your MW_HOME on Machine 1 is `/home/owlcsuser/mw_home`, Machine 2 should have exactly the same `MW_HOME, /home/owlcsuser/mw_home`.

5.3.3.5 Configuring Load Balancers

Route network traffic through a Load Balancer. Load Balancers must be capable of routing both HTTP and SIP traffic, and must be configured to do so. This section details the properties of the Virtual Hosts and Ports for proper configuration.

5.3.3.5.1 HTTP Pools Configure two HTTP Pools. They are configured at the Load Balancer and route to ports *8001* and *8011* on the two Communication Server machines. The former is the location of the *SIPInfra* Containers. The latter is the location of the *Services* container used by external client applications such as Oracle WebCenter.

5.3.3.5.2 Main SIP Pools The Main SIP pool is used by SIP clients on the external network, including Oracle Communicator. This SIP pool must support both TCP and UDP.

5.3.3.5.3 Presence SIP Pools Presence SIP Pools are the SIP pools used for accessing the Presence Server. These must support both UDP and TCP and need only be available internally.

5.3.3.5.4 Configuring Virtual Servers on the Load Balancer Configure the Load Balancer with Virtual Servers to support the pools listed above. Recommended settings are shown in Table 5–3.

Table 5–3   Virtual Servers for Load Balancers

Name	Listen Port	Members	Transport	Monitor	Ext/Int
LBR_SI	80	Machine 1: 8001 Machine 2: 8001	HTTP	HTTP	External
LBR_SVC	8011	Machine 1: 8011 Machine 2: 8011	HTTP	HTTP	External
LBR_MSIP_T	5060	Machine 1: 5060 Machine 2: 5060	TCP	SIP	External
LBR_MSIP_U	5060	Machine 1: 5060 Machine 2: 5060	UDP	SIP	External
LBR_PSIP_T	5070	Machine 1: 5070 Machine 2: 5070	TCP	SIP	Internal
LBR_PSIP_U	5070	Machine 1: 5070 Machine 2: 5070	UDP	SIP	Internal

In Table 5–3, the following column headings are used:

- Name--Each Virtual Server should be configured with a *Virtual Hostname* bound to a Load Balancer. The names in Table 5–3 are for illustration purposes only.

- Listen Port--Recommended *Listening Port* (listening only; not ports to which they send traffic) on the Load Balancer for the Virtual Hostname.

- Members--Machine names and ports to which the specific Virtual Server directs traffic. The recommended load-balancing method is *round-robin*.

- Transport--The transport mechanism (either TCP or UDP) used for communication.

- Monitor--Health Monitors can be set to those described in the table for detecting unavailable nodes.

- Ext/Int--External or Internal. If External, then this Virtual Host and Port must be accessible from external clients.

5.3.3.5.5 Persistence Configure Persistence for the LBR_SVC Virtual Server only. This ensures that existing clients are directed to the same Host. An Active Cookie-based mechanism is recommended.

5.3.3.6 Starting Servers

Servers should be started in the following order:

1. On *Machine 1*, start Admin Servers for the *wlcs_sipinfra* and *wlcs_services* domains, as follows:

- wlcs_sipinfra
  ```
  domains/wlcs_sipinfra/startWeblogic.sh
  ```

- wlcs_services
  `domains/wlcs_services/startWeblogic.sh`

2. On *Machine 2*, start Admin Server for the *wlcs_presence* domain, as follows:

   - `domains/wlcs_presence/startWeblogic.sh`

3. On *Machine 1*, start *wlcs_sipinfrastate1*
   `domains/wlcs_sipinfra/bin/startManagedWeblogic.sh wlcs_`
   `sipinfrastate1`

4. On *Machine 2*, start *wlcs_sipinfrastate2*
   `domains/wlcs_sipinfra/bin/startManagedWeblogic.sh wlcs_`
   `sipinfrastate2 <machine 1 host name:7001>`

5. On *Machine 1*, start all engines, as follows:

   - wlcs_sipinfra1
     `domains/wlcs_sipinfra/bin/startManagedWeblogic.sh wlcs_`
     `sipinfra1`

   - wlcs_services1
     `domains/wlcs_services/startManagedWeblogic.sh wlcs_`
     `services1`

   - wlcs_presence1
     `domains/wlcs_presence/startManagedWeblogic.sh wlcs_`
     `presence1 <machine 2 host name:7003>`

6. On *Machine 2*, start all engines, as follows:

   - wlcs_sipinfra2
     `domains/wlcs_sipinfra/startManagedWeblogic.sh wlcs_`
     `sipinfra2 <machine 1 host name:7001>`

   - wlcs_services2
     `domains/wlcs_services/startManagedWeblogic.sh wlcs_`
     `services2 <machine 1 host name:7002>`

   - wlcs_presence2
     `domains/wlcs_presence/startManagedWeblogic.sh wlcs_`
     `presence2`

The process is complete when console output reads: `<Server started in RUNNING mode>`.

> **Note:** In Production Mode with JRockit (Customer Environment), you must enter credentials when starting both the Admin and the Managed Servers.

> **Note:** OWLCS is pre-configured with realm example.com. To change the realm to another value, refer to Section 5.3.3.7, "Changing Realm from example.com".

5.3.3.7 Changing Realm from example.com

After installation, the realm must be configured to be *example.com*. This value must be changed to reflect the real domain name used in the installation. This section describes all the places where this needs to be changed and how to change it.

- SIP Server

  1. Login to the Administration Console for managing the *wlcs_sipinfra domain*. Administration Console for *wlcs_sipinfra domain* is located at: `http://<machine host 1>:7001/console`

  2. Click the **SipServer** link on left navigation pane.

  3. In the **Configuration->General** tab, scroll down to *Domain Aliases:* and enter the realm you want to choose (for example: `myrealm.com`).

- Digest Authentication

  1. Login to the Administration Console of the *wlcs_sipinfra domain*. It can be accessed from: `http://<machine 1 host>:7001/console`

  2. Click **Security Realms** on the left navigation pane.

  3. Click **myRealm**.

  4. Click the **Providers** tab.

  5. Click **DigestIdentityAsserter**.

  6. Click the **Provider Specific** tab.

  7. Scroll down to *DigestRealmName* attribute and choose the appropriate realm (for example: `myrealm.com`).

  > **Note:** Repeat steps 1-7 above for *wlcs_services* and *wlcs_presence* domains. The *wlcs_services* domain Admin Console can be accessed from `http://<machine 1 host>:7002/console` and the *wlcs_presence* domain can be accessed from `http://<machine 2 host>:7003/console`.

- Realm for Aggregation Proxy

  1. Start JConsole, using the following parameters on *Machine 1*, as outlined in Section 5.3.5, "Starting JConsole to Modify MBeans on UNIX".

     `$DOMAIN_HOME: Absolute path to wlcs_sipinfra domain directory.`

     For example:

     ```
     $MW_HOME/user_projects/domains/wlcs_sipinfra/
     <admin server host>: Machine 1 Host Name
     <admin server port>: Admin Server listen port for wlcs_sipinfra domain
     ```

     In our example, <admin server port> is *7001*.

  2. Click the **MBeans** tab.

  3. Expand the **oracle.sdp.presence** node.

  4. In the subtree under oracle.sdp.presence, expand **AggregationProxy** node.

  5. In the subtree under *AggregationProxy*, expand **AggregationProxy**.

  6. In the subtree under *AggregationProxy*, expand both **wlcs_sipinfra1** and **wlcs_sipinfra2**.

  7. In the subtree under *wlcs_sipinfra1*, expand **AggregationProxy** node.

  8. Do the same for the one under *wlcs_sipinfra2*.

9. In the subtree under *AggregationProxy*, under *wlcs_sipinfra1* node, expand **Attributes** node. Do the same for the one under *wlcs_sipinfra2*.

10. In the subtree under *Attributes*, change the following attributes:

    ```
    Realm = <yourcompany>
    ```

11. Do the same for the one under *wlcs_sipinfra2*.

- P-Asserted Identity URI for Third-Party Call Control

    1. Start JConsole, using the following parameters on *Machine 1*, as outlined in Starting JConsole to Modify MBeans on UNIX.

       ```
       $DOMAIN_HOME: Absolute path to wlcs_sipinfra domain directory.
       ```

       For example:

       ```
       $MW_HOME/user_projects/domains/wlcs_sipinfra/
       <admin server host>: Machine 1 Host Name
       <admin server port>: Admin Server listen port for wlcs_sipinfra domain
       ```

       In our example, <admin server port> is *700*.

    2. Click the **MBeans** tab.

    3. Expand the **oracle.sdp.thirdpartycall** node.

    4. In the subtree under *oracle.sdp.thirdpartycall*, expand **ThirdPartyCall** node.

    5. In the subtree under *ThirdPartyCall*, expand both **wlcs_sipinfra1** and **wlcs_sipinfra2**.

    6. In the subtree under *wlcs_sipinfra1*, expand **ThirdPartyCall** node.

    7. Do the same for the one under *wlcs_sipinfra2*.

    8. In the subtree under *ThirdPartyCall*, under *wlcs_sipinfra1* node, expand the **Attributes** node. Do the same for the one under wlcs_sipinfra2.

    9. In the subtree under *Attributes*, change the following attributes:

       ```
       PAssertedIdentityURI=sip:tpcc.user@<yourcompany>
       ```

    10. Do the same for the one under *wlcs_sipinfra2*.

5.3.3.8 Configuring Oracle WebLogic Communication Services

The following procedures describe configuration of Oracle WebLogic Communication Services.

5.3.3.8.1 Configuring Default Application Router (DAR) Perform the following procedures to configure the Default Application Router (DAR):

- "Configuring DAR for wlcs_sipinfra"

- "Configuring DAR for wlcs_services"

- "Configuring DAR for wlcs_presence"

Configuring DAR for wlcs_sipinfra

Perform the following steps to configure DAR for wlcs_sipinfra:

1. Open the console application on your browser for the Administration Server corresponding to the *wlcs_sipinfra* domain. For example:

   ```
   http://<machine 1 host>:7001/console
   ```

2. Click **Sip Server** under the *Domain Structure* navigation pane on the left.

3. Click the **Application Router** tab.

4. If you have installed in *Production Mode,* click the **Lock & edit** button to make changes.

5. Add the following lines to the *AR Configuration Data* field:

```
PUBLISH: ("authproxy", "DAR:From", "TERMINATING", "", "NO_ROUTE", "0"),
("userdispatcher", "DAR:From", "TERMINATING",
"sip:127.0.0.1:5070;transport=TCP;lr", "ROUTE", "1")
SUBSCRIBE: ("authproxy", "DAR:From", "TERMINATING", "", "NO_ROUTE", "0"),
("userdispatcher", "DAR:From", "TERMINATING",
"sip:127.0.0.1:5070;transport=TCP;lr", "ROUTE", "1")
REGISTER: ("proxyregistrar", "DAR:From", "TERMINATING", "", "NO_ROUTE", "0")
```

6. Click **Save**.

7. If you have installed in *Production Mode,* click **Activate Changes** after completing the changes.

Configuring DAR for wlcs_services

Perform the following steps to configure DAR for *wlcs_services*:

1. Open the console application on your browser for the AdminServer corresponding to *wlcs_services* domain. For example:

```
http://<machine 1 host>:7002/console
```

2. Click **Sip Server** under the *Domain Structure* navigation pane on the left.

3. Click the **Application Router** tab.

4. If you have installed in *Production Mode,* click the **Lock & edit** button to make changes.

5. Delete the existing *AR Configuration Data* and add the following lines to the *AR Configuration Data* field:

```
PUBLISH: ("userdispatcher", "DAR:From", "TERMINATING", "", "NO_ROUTE", "0")
SUBSCRIBE: ("userdispatcher", "DAR:From", "TERMINATING", "", "NO_ROUTE", "0)
```

6. Click **Save**.

7. If you have installed in *Production Mode,* click **Activate Changes** after completing the changes.

Configuring DAR for wlcs_presence

Perform the following steps to configure DAR for *wlcs_presence*:

1. Open the console application on your browser for the Administration Server corresponding to *wlcs_presence* domain. For example:

```
http://<machine 2 host>:7003/console
```

2. Click **Sip Server** under the *Domain Structure* navigation pane on the left.

3. Click the **Application Router** tab.

4. If you have installed in *Production Mode,* click on the **Lock & edit** button to make changes.

5. Delete the existing *AR Configuration Data* and add the following lines to *AR Configuration Data* field:

```
OPTIONS: ("optionsresponder", "DAR:From", "TERMINATING", "", "NO_ROUTE", "0")
PUBLISH: ("presence", "DAR:From", "TERMINATING", "", "NO_ROUTE", "0")
SUBSCRIBE:  ("presence", "DAR:From", "TERMINATING", "", "NO_ROUTE", "0")
```

6. Click **Save**.

7. If you have installed in *Production Mode*, click **Activate Changes** after completing the changes.

5.3.3.8.2   XCAP Configuration Perform the following steps to configure *XCAP*:

1. Start JConsole, using the following parameters on *Machine 2*, as outlined in Section 5.3.5, "Starting JConsole to Modify MBeans on UNIX".

    ```
    $DOMAIN_HOME: Absolute path to wlcs_presence domain directory. For ex: $MW_
    HOME/user_projects/domains/wlcs_presence/
    <admin server host>: Machine 1 Host Name
    <admin server port>: Admin Server listen port for wlcs_presence domain
    ```

    In our example, <admin server port> is *7003*.

2. Click **MBeans** tab.

3. Expand **oracle.sdp.presence** node.

4. In the subtree under *oracle.sdp.presence*, expand **XDMS** node.

5. In the subtree under XDMS, expand **XCAPConfig**.

6. In the subtree under *XCAPConfig*, expand both **wlcs_presence1** and **wlcs_presence2**.

7. In the subtree under *wlcs_presence1*, expand **XCAPConfig** node. Do the same for the one under *wlcs_presence2*.

8. In the subtree under XCAPConfig under wlcs_presence1 node, expand **Attributes** node. Do the same for the one under *wlcs_presence2*.

9. In the subtree under Attributes, click **PublicXCAPRootUrl** and change the Value to:

    ```
    http://<http pool on load balancer pointing to wlcs_services>/userdispatcher
    ```

    The name for `<http pool on load balancer pointing to wlcs_services>` is derived from the list in Table 5–3.

10. Do the same for the one under *wlcs_presence2*.

11. In the subtree under Attributes, click **PublicContentServerRootUrl** and change the value to:

    ```
    http://<http pool on load balancer pointing to wlcs_services>/userdispatcher
    ```

12. Do the same for the one under *wlcs_presence2*.

5.3.3.8.3   Presence Configuration Perform the following steps to configure *Presence*:

1. Start JConsole, using the following parameters on *Machine 2*, as outlined in Section 5.3.5, "Starting JConsole to Modify MBeans on UNIX".

    ```
    $DOMAIN_HOME : Absolute path to wlcs_presence domain directory. For ex: $MW_
    HOME/user_projects/domains/wlcs_presence/
    <admin server host>: Machine 1 Host Name
    <admin server port>: Admin Server listen port for wlcs_presence domain.
    ```

In our example, <admin server port> is *7003*.

2. Click on **MBeans** tab.

3. Expand **oracle.sdp.presence** node.

4. In the subtree under *oracle.sdp.presence*, expand **Presence** node.

5. In the subtree under *Presence*, expand **Presence** node.

6. In the subtree under Presence, expand both **wlcs_presence1** and **wlcs_presence2**.

7. In the subtree under *wlcs_presence1*, expand **Presence** node. Do the same for the one under *wlcs_presence2*.

8. In the subtree under *XCAPConfig* under wlcs_presence1 node, expand **Attributes** node. Do the same for the one under *wlcs_presence2*.

9. In the subtree under Attributes, click **PresRulesXCAPUri** and change the value to:

    ```
    sip:<presence sip pool on load balanacer>;transport=TCP;lr
    ```

    The name for *<presence sip pool on load balancer>* is derived from the list in Table 5–3.

10. Do the same for the one under *wlcs_presence2*.

11. In the subtree under Attributes, click **PIDFManipulationXCAPUri** and change the value to:

    ```
    sip:<presence sip pool on load balanacer>;transport=TCP;lr
    ```

    The name for *<presence sip pool on load balancer>* is derived from the list in Table 5–3.

12. Do the same for the one under *wlcs_presence2*.

5.3.3.8.4 Aggregation Proxy Configuration Perform the following steps to configure *Aggregation Proxy*:

1. Start JConsole, using the following parameters on *Machine 1*, as outlined in Section 5.3.5, "Starting JConsole to Modify MBeans on UNIX".

    ```
    $DOMAIN_HOME : Absolute path to wlcs_sipinfra domain directory. For ex: $MW_
    HOME/user_projects/domains/wlcs_sipinfra/
    <admin server host>: Machine 1 Host Name
    <admin server port>: Admin Server listen port for wlcs_sipinfra domain.
    ```

    In our example, <admin server port> is *7001*.

2. Click **MBeans** tab.

3. Expand *oracle.sdp.presence* node.

4. In the subtree under *oracle.sdp.presence*, expand **Aggregation Proxy** node.

5. In the subtree under *Aggregation Proxy*, expand Aggregation Proxy.

6. In the subtree under *Presence*, expand both *wlcs_sipinfra1* and *wlcs_sipinfra2*.

7. In the subtree under *wlcs_sipinfra1*, expand Aggregation Proxy node. Do the same for the one under *wlcs_sipinfra2*.

8. In the subtree under Aggregation Proxy under *wlcs_sipinfra1* node, expand **Attributes** node. Do the same for the one under *wlcs_sipinfra2*.

9. In the subtree under *Attributes*, change the following attributes:

```
XCAPHost: 127.0.0.1
XCAPPort: 8011 (http listening port of wlcs_services1(2) managed servers)
XCAPRoot: /userdispatcher
ContentHost: 127.0.0.1
ContentPort: 8011 (http listening port of wlcs_services1(2) managed servers)
ContentRoot: /userdispatcher
```

10. Do the same for the one under *wlcs_sipinfra2*.

5.3.3.8.5 Web Services Perform the following steps to configure *Web Services*:

1. Start JConsole, using the following parameters on *Machine 1*, as outlined in Section 5.3.5, "Starting JConsole to Modify MBeans on UNIX".

```
$DOMAIN_HOME : Absolute path to wlcs_services domain directory. For ex: $MW_
HOME/user_projects/domains/wlcs_services/
<admin server host>: Machine 1 Host Name
<admin server port>: Admin Server listen port for wlcs_services domain.
```

In our example, <admin server port> is *7002*.

2. Click **MBeans** tab.

3. Expand **oracle.sdp.presence** node.

4. In the subtree under *oracle.sdp.presence*, expand **PresenceWebService** node.

5. In the subtree under *PresenceWebService*, expand **PresenceConsumerWebService**.

6. In the subtree under *Presence*, expand both *wlcs_presence1* and *wlcs_presence2*.

7. In the subtree under wlcs_presence1, expand **PresenceConsumerWebService** node. Do the same for the one under wlcs_presence2.

8. In the subtree under *PresenceConsumerWebService* under wlcs_presence1 node, expand **Attributes** node. Do the same for the one under wlcs_presence2.

9. In the subtree under Attributes, change the following:

```
SIPOutboundProxy: sip:127.0.0.1:5070;transport=TCP;lr
```

10. Do the same for the one under wlcs_presence2.

11. In the subtree under PresenceWebService, expand **PresenceSupplierWebService**.

12. In the subtree under *PresenceSupplierWebService*, expand both **wlcs_presence1** and **wlcs_presence2**.

13. In the subtree under *wlcs_presence1*, expand **PresenceSupplierWebService** node. Do the same for the one under wlcs_presence2.

14. In the subtree under *PresenceConsumerWebService* under *wlcs_presence1* node, expand **Attributes** node. Do the same for the one under *wlcs_presence2*.

15. In the subtree under *Attributes*, change the following attributes:

```
SIPOutboundProxy: sip:127.0.0.1:5070;transport=TCP;lr
PublicXCAPRootUrl: http://127.0.0.1:8011/userdispatcher/
```

16. Do the same for the one under wlcs_presence2.

5.3.3.8.6 Configuring User Dispatcher Perform the following steps to configure *User Dispatcher*:

1. Stop all the *wlcs_services* servers (Admin Server for wlcs_services domain, wlcs_services1, wlcs_services2)

2. One *Machine 1*, go to `$MW_HOME/user_projects/domains/wlcs_services/config/communications/userdispatcher`

3. Edit the three files in that directory as follows:

- `presence-pool.xml`

```
<attribute name="Servers" type="java.util.List">
 sip:<ip address of wlcs_presence1 instance>:<sip port of wlcs_presence1
>;transport=TCP;lr,
 sip:<ip address of wlcs_presence2 instance>:<sip port of wlcs_presence2
>;transport=TCP;lr
</attribute>
```

- `xdm-http-pool.xml`

```
<attribute name="Servers" type="java.util.List">
 http:<ip address of wlcs_presence1 instance>:<http port for wlcs_presence1
>/services,
 http:<ip address of wlcs_presence2 >:<http port for wlcs_presence2
>/services
</attribute>
```

- `xdm-sip-pool.xml`

```
<attribute name="Servers" type="java.util.List">
 sip:<ip address of wlcs_presence1 instance>:<sip port of wlcs_presence1
>;transport=TCP;lr,
 sip:<ip address of wlcs_presence2 instance>:<sip port of wlcs_presence2
>;transport=TCP;lr
</attribute>
```

4. Restart the **wlcs_services** servers.

5.3.3.9 Provisioning Test Users

To confirm that the installation was successful, you should create a few test users to test out OWLCS using Oracle Communicator.

1. On Machine 1, start sash:

- On UNIX: `$DOMAIN_HOME/bin/launch_sash.sh -p 8001`

- On Windows: `$DOMAIN_HOME/bin/launch_sash.cmd -p 8001`

> **Note:** `$DOMAIN_HOME` is any domain home (*wlcs_sipinfra*, *wlcs_services*, *wlcs_presence*). By default the *wlcs_sipinfra1* or *2* managed server picks up port *8001*. If you configured the port to be something else, use that instead.

2. Provision the user: run the following command, replacing *alice* with *username* and `example.com` with *your realm* (for example: `yourcompany.com`).

```
identity add privateId=alice publicId=sip:alice@example.com role="Location
Service" realm=yourcompany.com password=yourpassword
```

5.3.4 Testing the Installation

Perform the following procedures to test the installation:

1. Download *Oracle Communicator* onto a Windows machine.

2. Install Oracle Communicator by running the downloaded EXE file.

3. Provision a test user in OWLCS as described above (for example: *sip:alice@example.com*).

4. Create an Oracle Communicator account for *sip:alice@example.com*.

5. Login to Oracle Communicator, disregard the login pop up if it appears.

6. Click the menu button on the top left (**Settings**).

7. Choose **Preferences**.

8. Click the **Network** tab.

9. Check **Use a proxy server**, and enter the canonical host name of the load balancer in the *Address* field.

10. Do the same for *XDMS Host*. Ensure that the XDMS port is the HTTP listen port of the load balancer http pool.

11. Click **OK**.

12. Restart Oracle Communicator and log in.

13. Enter the *username* and the *password* (as chosen previously). If you can register and change your *Presence* status, then the installation was successful.

You can create an account for another user similarly and add him/her as a buddy to the first user. *User1* should be able to send instant messages to User2, and they should be able to see each other's presence.

5.3.5 Starting JConsole to Modify MBeans on UNIX

In order to start JConsole to perform some of the modifications in this chapter, follow these steps:

1. Change to bash shell by typing `bash` in a terminal window.

2. `source $DOMAIN_HOME/bin/setDomainEnv.sh`

3. Start JConsole as follows, where `JAVA_HOME` points to *JDK 1.6*:

```
$JAVA_HOME/bin/jconsole -J-Djava.class.path=$JAVA_HOME/lib/jconsole.jar:$JAVA_
HOME/lib/tools.jar:$WLS_HOME/lib/wljmxclient.jar
-J-Djmx.remote.protocol.provider.pkgs=weblogic.management.mbeanservers.domainru
ntime
```

4. Click **Remote Process**.

5. Ensure that *IIOP* is enabled, and configure username and password to connect to the Admin Server over *IIOP*. To do this:

   a. Start console: `http://<admin server host>:<admin server port>/console`

   b. Login to console: enter admin server *username/password*.

6. Expand the tree under *Environment* from the *Domain Structure* pane on left. Click **Servers**.

7. Click on **Admin Server**.

8. Choose **Protocols** tab.

9. Choose **IIOP** tab.

10. Make sure *Enable IIOP* is checked.

11. Click **Advanced** link to expand *Advanced* options.

12. Default IIOP Username: `<admin server username>`.

13. Default IIOP Password: `<admin server password>`.

14. Confirm Default IIOP Password: `<admin server password>`.

15. Click **Save** button.

    (For Production Mode), click **Activate Changes** button on top left.

16. Restart the Admin Server and the corresponding Managed Servers.

17. Use this connect string to connect to the domain runtime *MBean Server*:

    ```
    service:jmx:rmi:///jndi/iiop://<admin server host>:<admin server
    port>/weblogic.management.mbeanservers.domainruntime
    ```

18. Enter Admin Server *username* and *password* for connecting to the Admin Server.

5.3.6 Logging

All logs are written to a single file (per server) at the following location: `$MW_HOME/user_projects/domains/<domain>/servers/<server>/logs/<server_name>-diagnostic.log`.

5.4 Uninstalling OWLCS Components

To uninstall some or all components on Windows:

1. Choose `Start > All Programs > Oracle WebLogic Communication Services 11g Home 1 > Uninstall`. The *Welcome* screen appears.

2. Click **Next**.

3. Select the components you want to uninstall.

4. Click **Next**. The uninstall is completed.

5. Click **Done**.

To uninstall some or all components on UNIX:

1. Run the following script:

    ```
    ./MW_HOME/wlserver_10.3/uninstall/uninstall.sh
    ```

2. Follow the Uninstall wizard.

3. Manually delete the MW_HOME directory:

    ```
    rm -rf MW_HOME
    ```

Uninstalling OWLCS Components

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6

Post-Installation

This chapter describes post-installation steps for Oracle WebLogic Communication Services (OWLCS). It contains the following topics:

6.1 Changing Realm from example.com

The out-of-the-box realm (`example.com`) should be changed to reflect the realm or domain of your deployment. Make these modifications to the realm or domain:

- SIP Container Domain Aliases setting

  1. Login to Console. For example:
     `http://weblogic.example.com:7001/console`

  2. Click the **SipServer** link on left navigation pane.

  3. In the **Configuration->General** tab scroll down to *Domain Aliases* and enter the realm you want to choose (for example: *yourdomain.com*).

     Alternatively, this change can be made by editing `$DOMAIN_HOME/config/custom/sipserver.xml`

- Realm for Digest Identity Asserter

  1. Login to the Console. For example:
     http://weblogic.example.com:7001/console

  2. Click **Security Realms** on the left navigation pane.

  3. Click **myRealm**.

  4. Click the **Providers** tab.

  5. Click **DigestIdentityAsserter**.

  6. Click **Provider Specific** tab.

  7. Scroll down to the *DigestRealmName* attribute and choose the appropriate realm (for example: yourdomain.com).

     Alternatively, this change can be made by editing `$DOMAIN_HOME/config/config.xml`

- Realm for Aggregation Proxy

  1. Open JConsole:

```
-J-Djava.class.path=$JAVA_HOME/lib/jconsole.jar:$JAVA_
HOME/lib/tools.jar:$WLS_HOME/lib/wljmxclient.jar
-J-Djmx.remote.protocol.provider.pkgs=weblogic.management.
remote
```

where $WLS_HOME = $MW_HOME/wlserver_10.3/server/

$JAVA_HOME should point to JDK 1.6

```
jconsole -J-Djava.class.path=%JAVA_
HOME%/lib/jconsole.jar;%JAVA_HOME%/lib/tools.jar;%WLS_
HOME%/lib/wljmxclient.jar
-J-Djmx.remote.protocol.provider.pkgs=weblogic.management.
remote
```

Once JConsole starts up, connect to the MBean Server using the following URI:

```
service:jmx:t3://<yourhost>:7001/jndi/weblogic.management.
mbeanservers.domainruntime
```

2. Change the value of the following MBean attribute under *AggregationProxy*.
`Realm = <value>`

For example: `Realm = yourdomain.com`

Alternatively, this change can be made by editing `$MW_HOME/user_`
`projects/domains/base_`
`domain/Config/Communications/AggregationProxyServlet.xml`

- P-Asserted Identity URI for Third-Party Call Control

  1. Open JConsole:

  ```
  $JAVA_HOME/bin/jconsole -J-Djava.class.path=$JAVA_
  HOME/lib/jconsole.jar:$JAVA_HOME/lib/tools.jar:$WLS_
  HOME/lib/wljmxclient.jar
  -J-Djmx.remote.protocol.provider.pkgs=weblogic.management.
  remote
  ```

  where $WLS_HOME = $MW_HOME/wlserver_10.3/server/

  $JAVA_HOME should point to JDK 1.6

  ```
  jconsole -J-Djava.class.path=%JAVA_
  HOME%/lib/jconsole.jar;%JAVA_HOME%/lib/tools.jar;%WLS_
  HOME%/lib/wljmxclient.jar
  -J-Djmx.remote.protocol.provider.pkgs=weblogic.management.
  remote
  ```

  2. Once JConsole starts up, connect to the MBean Server using the following URI:

  ```
  service:jmx:t3://<yourhost>:7001/jndi/weblogic.management.
  mbeanservers.domainruntime
  ```

  3. Change the value of the following MBean attribute under
  `oracle.sdp.thirdpartycall -> ThirdpartyCall` for all server
  instances:

  ```
  PAssertedIdentityURI: Replace domain (example.com) in
  default value of sip:tpcc.user@example.com
  ```

  Alternatively, this change can be made by editing `$MW_HOME/user_`
  `projects/domains/base_domain/Config/ThirdPartyCall.xml`

Ensure that you restart all instances of the OWLCS servers after making the above configuration changes.

6.2 Provisioning Third-Party Call Control (TPCC) Users to Enable Third Party Call Control

Authentication for `INVITE` requests initiated by Third Party Call Control is accomplished by inserting a *P-Asserted Identity Header* in the request by the Third Party Call Control application. By default, the `PAssertedIdentityURI` is set to `sip:tpcc.user@example.com`; for authentication to be successful, you must create and provision the corresponding TPCC user. To create and provision the user:

1. Use Sash to issue the following command:

   ```
   identity add privateId=tpcc.user publicId=sip:tpcc.user@example.com
   realm=example.com role="Location Service"
   ```

2. Enter a password of your choice when prompted (this password is not part of TPCC configuration, so an actual value is not used anywhere).

3. Ensure you replace *example.com* with the realm or domain for your installation. Third Party Call Control will not work if the above user is not created and provisioned.

> **Note:** For more information on provisioning users and using Sash, see *Oracle WebLogic Communication Services Administrator's Guide*.

7

Troubleshooting

This chapter describes typical installation and configuration problems and their solution. It contains the following sections:

- Section 7.1, "Port Conflicts"
- Section 7.2, "Loss of Network Connection During Installation"
- Section 7.3, "Cleanly Uninstalling OWLCS"

7.1 Port Conflicts

As described in "Section 1.2.2, "Port Requirements"" in the Product and Installation Overview chapter of this guide, OWLCS requires the use of specific ports.

The installers perform checks of the ports during installation to make sure there are no conflicts.

7.2 Loss of Network Connection During Installation

During OWLCS installation, an active network connection is required.

In the uncommon event that a network connection is lost during installation, the installation can fail.

7.3 Cleanly Uninstalling OWLCS

You should always use the uninstaller to cleanly uninstall an OWLCS installation since manually deleting OWLCS can result in problems if OWLCS is to be installed again.

A

Creating a Silent Installation

The following sections describe how to create a silent installation of Oracle WebLogic Communication Services. Topics include:

- Section A.1, "Base Platform"
- Section A.2, "Services"

A.1 Base Platform

Silent install of the Oracle WebLogic Communication Services Base Platform is achieved using the `owlcs10310_generic.jar`. The install can be triggered using the following command:

```
<JAVA_HOME>/bin/java  -Djava.io.tmpdir=/tmpDir  -jar owlcs10310_generic.jar
-mode=silent -silent_xml=silent.xml -log=install.log -log_priority=debug
```

where:

`tmpDir` is the temporary directory where the files are stored

`silent.xml` defines the required input details for the base platform installation

`install.log` is the location of the log file which contains the complete output log of the installation

`log_priority=debug` denotes the level of logging

The only mandatory value in the `silent.xml` file for the install is the BEAHOME. BEAHOME is the target directory where the Base platform is to be installed:

```
<?xml version="1.0" encoding="UTF-8" ?>
<domain-template-descriptor>
<input-fields>
   <data-value name="BEAHOME" value="/scratch/user1_silentinstall/run7/mwhome" />
   <data-value name="WLSS_INSTALL_DIR" value="/scratch/user1_
silentinstall/run7/test1/wlcservices_10.3" />
   <data-value name="WLS_INSTALL_DIR" value="/scratch/user1_
silentinstall/run7/test2/wlserver_10.3" />
   <data-value name="COMPONENT_PATHS" value="WebLogic Server|WebLogic
Communication Services" />
</input-fields>
</domain-template-descriptor>

BEAHOME= MW Home (Mandatory)
WLSS_INSTALL_DIR= Directory for wlcservices_10.3 (Default to $MW_HOME/wlcservices_
10.3)
```

```
WLS_INSTALL_DIR= Directory for wlserver_10.3 (Default to $MW_HOMEwlserver_10.3)
COMPONENT_PATHS= "WebLogic Server|WebLogic Communication Services" (Defaults to
both the products)
```

There are additional values which can be provided to configure:

- USER_INSTALL_DIR

- WLS_INSTALL_DIR

- JAVA_HOME

As they are not mandatory, the automatic default values would be taken for installation.

A.2 Services

Silent install of the Oracle WebLogic Communication Services (Presence and SIP Infrastructure Components) is similar to other SOA Components. The install can be triggered using the following command:

```
./runInstaller -jreLoc <JRE_LOC> -printtime -printmemory -printdiskusage
-invPtrLoc oraInst.loc -novalidation -ignoreSysPrereqs -force -silent -response
silent.rsp -waitforcompletion
```

where:

JRE_LOC is the JDK6 location

invPtrLoc is the location to the oraInventory

silent.rsp is the response file for the silent install mode. The silent.rsp is of the following format:

```
[ENGINE]
    VERSION=1.0.0.0.0
    [Generic]
    MIDDLEWARE_HOME=/scratch/aime1/work/mw9519
    ORACLE_HOME=/scratch/aime1/work/mw9519/owlcs1456
```

MIDDLEWARE_HOME is the bea home as provided in the base platform install.

ORACLE_HOME is the target directory for the install.

Configuration using Silent install mode is achieved through WLST commands to read and apply templates.

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