Oracle® Fusion Middleware

Quick Installation Guide for Oracle SOA Suite and Oracle Business Process Management Suite 11*g* Release 1 (11.1.1.6.0)

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This guide contains instructions for installing and configuring Oracle WebLogic Server and Oracle SOA Suite on a single host using all the default values.

The first part of the document describes how to install and configure a domain for Oracle SOA Suite (with Oracle Business Process Execution Language (BPEL) Process Manager (PM), Mediator, Rules, B2B, and Human Workflow) and Oracle Business Process Management Suite.

Then, instructions for extending the domain to include Oracle Business Activity Monitoring (BAM) are provided.

Finally, instructions for removing the installed software are provided.

The following topics are covered:

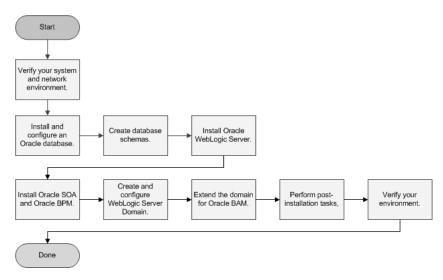
- Section 1, "Installation Overview"
- Section 2, "Verifying Your System and Network Environment"
- Section 3, "Installing and Configuring a Database"
- Section 4, "Creating Schemas for Oracle SOA Suite and Oracle BAM"
- Section 5, "Installing Oracle WebLogic Server and Creating the Middleware Home"
- Section 6, "Installing Oracle SOA Suite"
- Section 7, "Creating a WebLogic Domain and Configuring Oracle SOA Suite"
- Section 8, "Extending the WebLogic Domain and Configuring Oracle BAM"
- Section 9, "Post-Installation Tasks"
- Section 10, "Installing Oracle SOA Suite Design-Time Components"
- Section 11, "Deinstalling Oracle SOA Suite"
- Section 12, "Additional Resources"
- Section 13, "Documentation Accessibility"

1 Installation Overview

Figure 1 shows the order of the procedures you will need to follow:



Figure 1 Oracle SOA Suite Quick Installation Flowchart



This illustration shows the order of events to follow in order to install Oracle SOA Suite with all products. It is described in the surrounding text.

Table 1 provides additional information and links to specific documentation for each task in the flowchart.

Table 1 Oracle SOA Suite Quick Installation Tasks and Descriptions

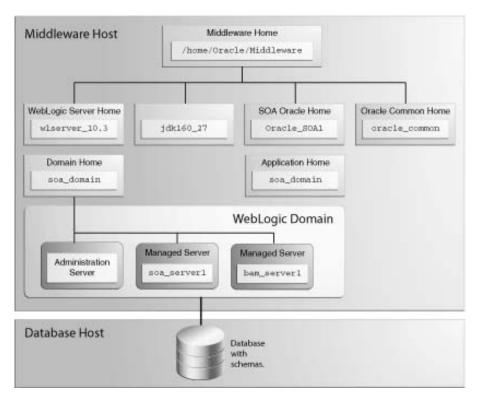
Tasks	Details and Documentation	
Verify your system and network environment.	To verify that your system and network meet the minimum necessary requirements, see Section 2, "Verifying Your System and Network Environment".	
Install and configure an Oracle database.	The instructions provided in this document include the installation and configuration of Oracle BAM, which is only supported on Oracle databases. See Section 3, "Installing and Configuring a Database".	
Create database schemas.	Before Oracle SOA Suite and Oracle BAM can be configured, the necessary database schemas must be created. See Section 4, "Creating Schemas for Oracle SOA Suite and Oracle BAM".	
Install Oracle WebLogic Server.	Oracle SOA Suite requires an application server; the instructions provided in this document are for installing Oracle WebLogic Server. See Section 5, "Installing Oracle WebLogic Server and Creating the Middleware Home".	
Install Oracle SOA Suite.	Install all products in Oracle SOA Suite. See Section 6, "Installing Oracle SOA Suite".	
Create and configure Oracle WebLogic Server Domain.	Run the Configuration Wizard to create a WebLogic Server Domain and configure your Oracle SOA Suite components. See Section 7, "Creating a WebLogic Domain and Configuring Oracle SOA Suite".	
Extend the domain for Oracle BAM.	Run the Configuration Wizard a second time to extend your existing domain for Oracle BAM. See Section 8, "Extending the WebLogic Domain and Configuring Oracle BAM".	

Table 1 (Cont.) Oracle SOA Suite Quick Installation Tasks and Descriptions

Tasks	Details and Documentation	
Perform post-installation tasks.	Perform the following tasks after you have successfully installed and configured your software:	
	■ If you are using non-default port numbers for Oracle BAM, see Section 9.1, "Configuring Custom Port Numbers for Oracle BAM".	
	 Start the Managed Servers in your domain. See Section 9.2, "Launching the Servers". 	
	 Start Node Manager to enable management of your servers from the Administration Console. See Section 9.3, "Starting Node Manager". 	
Verify your environment.	See Section 9.4, "Verifying the Installation".	

Figure 2 illustrates the topology that will be created on your system at the conclusion of this procedure:

Figure 2 Completed Installation and Configuration Topology



This figure shows the topology on your system at the conclusion of this installation. It is described in the surrounding text.

2 Verifying Your System and Network Environment

To verify that your system environment meets the minimum requirements for installation, refer to the following documents, available on Oracle Technology Network (OTN):

Oracle Fusion Middleware System Requirements and Specifications

This document contains information related to hardware and software requirements, minimum disk space and memory requirements, database schema requirements, and required system libraries, packages, or patches.

If you are installing on a DHCP server, non-networked computer, or multihomed computer, there are additional configuration steps that are required. These steps are also available in the system requirements document in the "Oracle Fusion Middleware System Configuration Requirements" section.

If you are installing on a Windows operating system and want to install and configure Java Access Bridge for Section 508 Accessibility, read the "Installing and Configuring Java Access Bridge" section in this document.

If you are installing on a UNIX operating system, Oracle recommends that you configure your system to enable Unicode support. For more information, read the "Enabling Unicode Support" section in this document.

Oracle Fusion Middleware Supported System Configurations

This page contains various certification documents for current and previous product releases. The *System Requirements and Supported Platforms for Oracle Fusion Middleware 11gR1* document contains certification information related to supported 32-bit and 64-bit operating systems, databases, web servers, LDAP servers, adapters, IPv6, JDKs, and third-party products.

Note: For internationalization and localization, the following criteria must be met for Oracle BAM:

- Your Oracle database must use the UTF-8 character set.
- After installation, your browser's location must also be set to the appropriate locale.

More information about supported browsers and supported languages for Oracle BAM can be found in this document.

Oracle Fusion Middleware Interoperability and Compatibility Guide

This document covers the compatibility and interoperability issues that may arise when installing or upgrading Oracle Fusion Middleware 11*g* products.

3 Installing and Configuring a Database

Installation of Oracle SOA Suite requires the availability of a database. The scenario described in the document includes Oracle BAM and the Oracle BAM schema, which is only supported on an Oracle database. This Oracle database can be installed on any supported operating system for that database; see the *System Requirements and Supported Platforms for Oracle Fusion Middleware 11gR1* document on the Oracle Fusion Middleware Supported System Configurations page.

After you have installed an Oracle database, make sure that it is configured correctly by referring to the "RCU Requirements for Oracle Databases" section in the *Oracle Fusion Middleware System Requirements and Specifications* document.

Before running Repository Creation Utility to create your schema, verify that this Oracle database is up and running. The database does not have to be on the same system where you are installing the products.

4 Creating Schemas for Oracle SOA Suite and Oracle BAM

Oracle SOA Suite and Oracle BAM require that certain schemas exist in your Oracle database prior to installation. You must run Repository Creation Utility (RCU) to create the schemas in the database.

Follow the instructions in this section to obtain RCU and create the schemas:

- Section 4.1, "Downloading and Starting RCU"
- Section 4.2, "Following the RCU Screens for Schema Creation"

To see the platforms on which you can run RCU, review the "RCU Supported Platforms" section in Oracle Fusion Middleware System Requirements and Specifications.

For more information about Repository Creation Utility, refer to *Oracle Fusion Middleware Repository Creation Utility User's Guide*.

4.1 Downloading and Starting RCU

To obtain the latest version of RCU:

1. Go to the Oracle Fusion Middleware 11gR1 Software Download page on Oracle Technology Network:

http://www.oracle.com/technetwork/middleware/downloads/index-087510.html

- 2. Click **OTN License Agreement** and read the license agreement.
- **3.** Select the **Accept License Agreement** option. You must accept the license agreement before you can download RCU.
- **4.** Look for Repository Creation Utility in the "Required Additional Software" table near the bottom of the page. After downloading the .zip file, extract the contents to a directory of your choice; this directory will be referred to as the *RCU_HOME* directory.

Note: On Windows operating systems, make sure that you do not unzip the RCU . zip file to a directory name containing spaces.

Start RCU from the bin directory inside the RCU_HOME directory.

On Linux operating systems:

```
cd RCU_HOME/bin ./rcu
```

On Windows operating systems:

4.2 Following the RCU Screens for Schema Creation

Follow the instructions provided on the RCU screens, as described in this section.

1. Welcome Screen

Click Next.

2. Create Repository Screen

Select Create.

Click Next.

3. Database Connection Details Screen

Select "Oracle Database" in the Database Type field, then provide the following credentials to connect:

 Host Name: Specify the name of the machine on which your database resides in the format host.domain.com.

For Oracle RAC databases, specify the Virtual IP name or one of the node names as the host name. For example:

ora-node1-vip.example.com

• Port: Specify the database listener port number. The default port number for Oracle databases is 1521.

If you do not know the listen port number for your database, you can check the portlist.ini file, which is located in the install directory in the Oracle home on the machine where the database is located.

 Database Name: Specify the service name for the database. Typically, the service name is the same as the global database name.

If you are unsure what the service name for your database is, you can obtain it from the SERVICE_NAMES parameter in the database's initialization parameter file. If the initialization parameter file does not contain the SERVICE_NAMES parameter, then the service name is the same as the global database name, which is specified in the DB_NAME and DB_DOMAIN parameters.

For Oracle RAC databases, specify the service name of one of the nodes in this field. For example: examplehost.exampledomain.com.

- Username: Specify the name of a user with DBA or SYSDBA privileges. The default user name with SYSDBA privileges is SYS.
- Password: Specify the password for your database user.
- Role: Select the database user's role from the drop-down list. The SYS user requires the SYSDBA role.

Click **Next**. A "Checking Prerequisites" screen will appear. If there are errors, some details about the error will be displayed on the Database Connection Details Screen. Fix the error messages and click **Next** again.

After the checking is complete with no errors, click **OK** to dismiss the screen.

4. Select Components Screen

Near the top of the screen, select **Create a New Prefix**. If you are the only user of the database instance, you may use the default prefix DEV. If you are sharing the database instance with other Oracle Fusion Middleware users, refer to "Creating Custom Schemas and Tablespaces" in *Oracle Fusion Middleware Repository Creation Utility User's Guide* for more information about creating and using custom prefixes.

In the table that lists the available components, select **SOA and BPM Infrastructure**. All of the product schemas within this component, including all the dependent schemas, are automatically selected.

Table 2 lists the required schemas and dependencies for Oracle SOA Suite on Oracle databases:

Table 2 Required Schemas for Oracle SOA Suite on Oracle Databases

Component	Schema Owner	Dependencies
SOA Infrastructure	prefix_SOAINFRA	<pre>prefix_MDS (Metadata Services)</pre>
		<pre>prefix_ORASDPM (User Messaging)</pre>
Business Activity Monitoring	prefix_ORABAM	prefix_MDS (Metadata Services)
		<pre>prefix_ORASDPM (User Messaging)</pre>
User Messaging Service	prefix_ORASDPM	prefix_MDS (Metadata Services)

Note: You must remember or make a note of these schema names and the prefix value from this screen; you will need them later when you are configuring your products. You will need to provide the schema name in the format <code>prefix_schemaname</code>.

Click **Next**. A "Checking Prerequisites" screen will appear. If there are errors, some details about the error will be displayed near the bottom of the screen. Fix the error messages and click **Next** again.

After the checking is complete with no errors, click **OK** to dismiss the screen.

5. Schema Passwords Screen

Near the top of the screen, select **Use same password for all schemas**.

In the Password field, enter your password. Enter your password again in the Confirm Password field.

Note: You must remember or make a note of the schema passwords from this screen; you will need them later when you are configuring your products.

Click Next.

6. Map Tablespaces Screen

Click **Next**. A "Creating Tablespaces" screen will appear. If there are errors, some details about the error will be displayed on the Map Tablespaces Screen. Fix the error messages and click **Next** again.

After the tablespaces are created with no errors, click **OK** to dismiss the screen.

7. Summary Screen

Click **Create**. A "CREATE" screen will appear. If there are errors, some details about the error will be displayed on the Summary Screen. Fix the error messages and click **Next** again.

After the schemas are created with no errors, click **OK** to dismiss the screen.

8. Completion Summary Screen

Click Close.

5 Installing Oracle WebLogic Server and Creating the Middleware Home

Oracle SOA Suite requires an application server that is up and running on your system. This document will provide instructions for downloading and installing Oracle WebLogic Server:

- Section 5.1, "Downloading the WebLogic Server Installer"
- Section 5.2, "Starting the WebLogic Server Installer"
- Section 5.3, "WebLogic Server Installation Screens and Instructions"
- Section 5.4, "Verifying Your WebLogic Server Installation"

For more information about non-Oracle application servers, refer to *Oracle Fusion Middleware Third-Party Application Server Guide*.

For detailed information about installing WebLogic Server, refer to *Oracle Fusion Middleware Installation Guide for Oracle WebLogic Server*.

5.1 Downloading the WebLogic Server Installer

Download the latest version of the Oracle WebLogic Server installer from Oracle Technology Network:

1. Go to Oracle WebLogic Server Downloads page on Oracle Technology Network:

 $\verb|http://www.oracle.com/technetwork/middleware/ias/downloads/wls-main-097127.html|$

- 2. Click **OTN** License Agreement and read the license agreement.
- **3.** Select the **Accept License Agreement** option. You must accept the license agreement before you can download the installer.
- **4.** Follow the on-screen instructions to access the list of available installers for the current release and download the appropriate installer for your operating system.

The installation program requires a Java run-time environment (JRE) to run. A JRE is bundled in the Windows 32-bit and Linux x86 installation programs, as well as in some UNIX installation programs (those with file names ending in .bin).

For other platforms, the installation program does not install a JDK. File names for these installation programs end in .jar. To run the .jar installation programs, you must have the appropriate version of the JDK installed on your system, and include the bin directory of the JDK at the beginning of the PATH variable definition. Refer to the System Requirements and Supported Platforms for Oracle Fusion Middleware 11gR1

document on the Oracle Fusion Middleware Supported System Configurations page for a list of supported JDKs for your platform.

5.2 Starting the WebLogic Server Installer

Before starting the WebLogic Server installer, set the DISPLAY environment variable on your system.

To start the Oracle WebLogic Server installer in graphical mode, follow the instructions in the section that corresponds to your operating system:

- Section 5.2.1, "Starting the Installer on Windows Operating Systems"
- Section 5.2.2, "Starting the Installer on UNIX Operating Systems"
- Section 5.2.3, "Starting the .jar Installer on UNIX Operating Systems"
- Section 5.2.4, "Starting the Installer on 64-Bit Operating Systems Using 64-Bit JDK"

5.2.1 Starting the Installer on Windows Operating Systems

To start the installer on a Windows operating system, go to the directory that contains the installation program and double-click the installation file. For example, for WebLogic Serve r10.3.6, the name of the installation program for 32-bit Windows is wls1036 win32.exe.

5.2.2 Starting the Installer on UNIX Operating Systems

To start the installer on a UNIX operating system, go to the directory that contains the installation program, then launch the installation by entering the following commands:

```
chmod a+x file_name
./file name
```

Replace *file_name* with the name of your installation file. For example, for WebLogic Server 10.3.6, the name of the installer file for 32-bit Linux is wls1036_linux32.bin.

5.2.3 Starting the .jar Installer on UNIX Operating Systems

To start the installer for installation files with names ending in .jar, perform the following steps:

1. Add the bin directory of the appropriate JDK to the beginning of the *PATH* variable definition on the target system. For example:

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

- **2.** Go to the directory where you downloaded the installation program.
- **3.** Launch the installation program by entering the following command:

```
java -jar wlsversion_generic.jar
```

5.2.4 Starting the Installer on 64-Bit Operating Systems Using 64-Bit JDK

If you are installing WebLogic Server on a 64-bit platform using a.jar installation program:

1. Include the -d64 flag in the installation command when using a 32/64-bit hybrid JDK (such as for the HP-PA, HPIA, and Solaris64 platforms. For example:

```
java -d64 -jar wlsversion_generic.jar
```

2. Run the JAVA_HOME/bin/java -version (or JAVA_HOME/bin/java -d64 -version on 32/64-bit hybrid JDKs) command to ensure that your JAVA_HOME refers to a 64-bit JDK.

5.3 WebLogic Server Installation Screens and Instructions

Follow the instructions provided on the WebLogic Server installation screens, as described in this section.

1. Welcome Screen

Click Next.

2. Choose Middleware Home Directory Screen

Select Create a new Middleware Home.

Specify the desired location of your new Middleware home directory. If this directory already exists on your system, it must be an empty directory. If this directory does not already exist, then it will be created for you.

Note: You must remember or make a note of this location; you will be asked for it later when you are installing Oracle SOA Suite.

For more information about the Middleware home directory, refer to "Middleware Home and WebLogic Home Directories" in *Oracle Fusion Middleware Installation Planning Guide*.

Click Next.

3. Register for Security Updates Screen

Select whether or not you want to receive the latest product and security updates. If you choose not to receive anything, you will be asked to verify your selection before continuing.

Click Next.

4. Choose Install Type Screen

Select **Typical**.

Click Next.

5. Choose Product Installation Directories Screen

Specify the desired location for your WebLogic Server home directory.

For more information about the WebLogic home directory, refer to "Middleware Home and WebLogic Home Directories" in *Oracle Fusion Middleware Installation Planning Guide*.

Click Next.

6. Choose Shortcut Location (Windows only)

If you are installing on a Windows system, you will be asked to specify a location where you would like Windows to create a shortcut to Oracle products.

Click Next.

7. Installation Summary Screen

Click Next.

8. Installation Progress Screen

No action is required on this screen; the installer will automatically advance to the next screen when installation is complete.

9. Installation Complete Screen

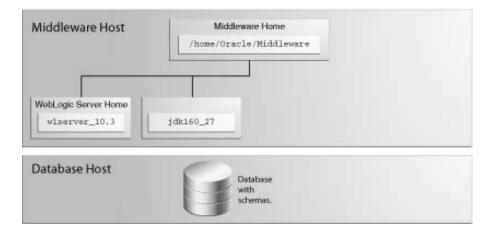
De-select Run Quickstart.

Click Done.

5.4 Verifying Your WebLogic Server Installation

At this point, after your database and Oracle WebLogic Server have both been installed, you should see the directory structure shown in Figure 3 (refer back to Figure 2 to see the complete system topology).

Figure 3 Directory Structure After WebLogic Server (and Database) Installation



This illustration shows the topology after a WebLogic Server installation. It is described in the surrounding text.

Note that not all of the directories in the Middleware home are illustrated, just the ones that you will need later on in this procedure.

6 Installing Oracle SOA Suite

When you run the installer, the Oracle SOA Suite run-time components (Oracle SOA Suite and Oracle BAM) are both installed onto your system by default. You can choose to configure one or both of these products by running the Configuration Wizard after you complete the installation.

Note: Make sure you are not logged in to the WebLogic Server Administration Console before you install Oracle SOA Suite.

See Section 10, "Installing Oracle SOA Suite Design-Time Components" for information about installing Oracle JDeveloper and installing the Oracle SOA Suite extensions in Oracle JDeveloper. These extensions provide the functionality and online documentation for designing SOA composite applications.

Follow the instructions in this section to install Oracle SOA Suite:

- Section 6.1, "Obtaining the Software"
- Section 6.2, "Starting the Installer"
- Section 6.3, "Following the Installation Screens and Instructions"

6.1 Obtaining the Software

Table 3 describes the Oracle Web sites where you can download the latest Oracle Fusion Middleware software.

Table 3 Where to Download Oracle Fusion Middleware Software

Oracle Website	Purpose and Location
Oracle Technology Network	If you are a developer, go to the Oracle Technology Network (OTN) to download Oracle software under the terms of the OTN Developer License:
	http://www.oracle.com/technetwork/middleware/fusion-middleware/overview/index.html
	For more information, refer to the <i>Download and Certification Frequently Asked Questions</i> document, which is available by clicking the FAQ icon on the main Middleware download page.
	Note: Oracle Technology Network requires free registration.
My Oracle Support	If you are a customer with a valid support agreement with Oracle and you want to download software updates and fixes, then go to My Oracle Support:
	http://support.oracle.com/
	To obtain the specific patch set numbers for your installation, as well as additional information about maintaining your software, refer to My Oracle Support document ID 1073776.1.
Oracle E-Delivery	If you have purchased an Oracle software license and you want to download software under the terms of that license, or if you want to download Oracle software under the terms of the Oracle Electronic Delivery Trial License then go to Oracle E-Delivery:
	http://edelivery.oracle.com/

After you download the archive file, unpack the archive file into a directory of your choice on the machine where you will be performing the installation.

6.2 Starting the Installer

To start the installer, go to the directory where you unpacked the archive file and switch to the Disk1 directory.

On UNIX operating systems:

cd unpacked_archive_directory/Disk1
./runInstaller -jreLoc JRE_LOCATION

Note: Starting the installer as root user is not supported.

On Windows operating systems:

cd unpacked_archive_directory\Disk1
setup.exe -jreLoc JRE_LOCATION

The installer requires the full path to the location of a Java Runtime Environment (JRE) on your system. When you installed Oracle WebLogic Server (Section 5, "Installing Oracle WebLogic Server and Creating the Middleware Home"), a JRE was installed on your system. You can use this location (the location of the jre directory) to start the installer. The default location for the JRE is the jdk160_27 directory inside the Middleware home.

On 64-bit platforms, the JRE location is the JAVA_HOME you used to install Oracle WebLogic Server. Refer to Section 5, "Installing Oracle WebLogic Server and Creating the Middleware Home" for more information.

6.3 Following the Installation Screens and Instructions

Follow the instructions provided on the installation screens, as described in this section.

1. Welcome Screen

Click Next.

2. Install Software Updates Screen

Select the method you want to use for installing software updates.

Skip Software Updates

You can choose to skip this option for now.

Search My Oracle Support for Updates.

If you have a My Oracle Support account, you can specify your account name and password to have the installer automatically download applicable software updates from My Oracle Support. After entering your credentials, you can test the connection by clicking **Test Connection**. Click **Proxy Settings** if you need to configure a proxy server in order to have the installer access My Oracle Support.

Search Local Directory for Updates.

If you have software updates available locally, you can specify the location by using this option. When you select **Search Local Directory for Updates** an additional "Local Directory" field will appear; specify the location where your updates are located in this field.

After selecting your option, click Next.

3. Prerequisite Checks Screen

After the prerequisite checking is complete with no errors, click **Next**.

4. Specify Installation Location Screen

Oracle Middleware Home: Specify the location where WebLogic Server was installed.

Oracle Home Directory: Specify the location where you want to install the software:

- If you specify a directory that already exists, it must be an empty directory and it must be inside the Oracle Middleware home.
- If you specify a new directory, it will be created inside the Oracle Middleware home.

This will be your Oracle home directory. Runtime components cannot write to this directory.

Note: For the remainder of this document, this directory will be referred to as your SOA Oracle home to avoid any confusion with the Oracle home directories of other Oracle Fusion Middleware products.

For more information about the Middleware home and Oracle home directories, refer to "Oracle Fusion Middleware Directory Structure" in *Oracle Fusion Middleware Installation Planning Guide*.

5. Application Server Screen

Select the application server you want to use for this installation.

Select **WebLogic Server**, then click **Next**.

6. Installation Summary Screen

Click Install.

7. Installation Progress Screen

Click **Next** when the installation is 100% complete.

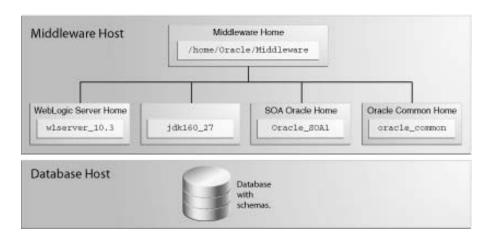
8. Installation Complete Screen

Click Finish.

6.4 Verifying the Installation

At this point, you should see the directory structure shown in Figure 4 (refer back to Figure 2 to see the complete system topology).

Figure 4 Directory Structure After Oracle SOA Suite Installation



This illustration shows the topology after Oracle SOA Suite is installed. It is described in the surrounding text.

7 Creating a WebLogic Domain and Configuring Oracle SOA Suite

After you have successfully installed your software, you can configure Oracle SOA Suite components using the Oracle Fusion Middleware Configuration Wizard.

For more information about configuring WebLogic domains, refer to *Oracle Fusion Middleware Creating Domains Using the Configuration Wizard*.

7.1 Starting the Configuration Wizard

The Configuration Wizard is located in the SOA_ORACLE_HOME directory.

On UNIX operating systems:

cd SOA_ORACLE_HOME/common/bin
./config.sh

On Windows operating systems:

cd SOA_ORACLE_HOME\common\bin
config.cmd

If you are using a 32-bit operating system, Oracle JRockit SDK is installed as part of the Oracle WebLogic installation (see Section 5, "Installing Oracle WebLogic Server and Creating the Middleware Home"). This is the JDK that the Configuration Wizard will use by default. If you want to invoke the Configuration Wizard with the Sun JDK, do the following prior to starting the Configuration Wizard:

- 1. Set the JAVA_HOME environment variable to the location of the Sun JDK. For example, you can set it to the Sun JDK that was installed with Oracle WebLogic Server in the jdk160_27 directory inside the Middleware home.
- **2.** Set the JAVA_VENDOR environment variable to "Sun."

7.2 Configuration Wizard Screens for Domain Creation

To configure a WebLogic domain for Oracle SOA Suite:

1. Welcome Screen

Select Create a New WebLogic Domain.

Click Next.

2. Select Domain Source Screen

Select Generate a domain configured automatically to support the following products, then select the products that should be configured in this domain. For Oracle SOA Suite installation, select:

Oracle SOA Suite - 11.1.1.0 [SOA_ORACLE_HOME]

This will automatically select the following products as dependencies:

- Oracle WSM Policy Manager 11.1.1.0 [oracle_common]
- Oracle JRF 11.1.1.0 [oracle_common]
- Oracle BPM Suite 11.1.1.0 [SOA_ORACLE_HOME]
- Oracle Enterprise Manager 11.1.1.0 [oracle_common]

If you have previously installed Oracle Fusion Middleware products on your system, you may see duplicate products on this screen; select only those products associated with your *SOA_ORACLE_HOME*.

Click Next.

3. Specify Domain Name and Location Screen

Specify the following domain information:

- **Domain name:** The name of the domain you want to create. The default name is base_domain.
- **Domain location:** The absolute path to the directory where this domain should be created. For the remainder of this document, the specified domain name and domain location will be referred to as the domain home directory (DOMAIN_HOME). This directory can be located anywhere on your system.
- **Application location:** The absolute path to the directory where applications created in this domain should reside. For the remainder of this document, the specified application location and domain name will be referred to as the application home directory (APPLICATION_HOME). This directory can be located anywhere on your system.

See "WebLogic Server Domain" in *Oracle Fusion Middleware Installation Planning Guide* for more information about the domain name and location.

Click Next.

4. Configure Administrator Username and Password Screen

Specify the following credentials for your administrator:

- User name: The name of the administrator for this domain. The default name is weblogic.
- **User password:** The administrator's password.
- **Confirm user password:** Re-enter the administrator's password.

■ **Description:** Enter a description for this user, or leave the default description as is. This field is optional.

Click Next.

5. Configure Server Start Mode and JDK Screen

In the "WebLogic Domain Startup Mode" portion of the screen, Select **Development Mode**.

In the "JDK Selection" portion of the screen, select the JDK that is recommended for your platform in Development Mode. This text can be found immediately underneath **Development Mode** in the "WebLogic Domain Startup Mode" section. For example, on a Linux system, you would be asked to select "Sun SDK 1.6.0_27" from the list of available JDKs.

Click Next.

6. Configure JDBC Component Schema Screen

Configure the schema information for each data source listed on this screen. When you make changes to any field on this screen, the changes are applied to selected data sources only. For fields that are common with all data sources (for example, all data sources reside on the same database), you should select all of the data sources and make your changes. The changes are saved automatically as you type.

After all of the information that is common to all data sources has been specified, then you will need to select individual or smaller groups of data sources and enter information that is specific to them (for example, the schema owner).

Review the table on this screen and identify which fields you need to modify:

- Vendor: Select the vendor for your database from the drop-down list.
- **Driver**: Select the driver type from the drop-down list.
- **Schema Owner**: Specify the schema owner for the schema; this is the name of the schema for this component in the following format:

prefix_schema-name

This information was specified on the Select Components Screen when the schemas were created using RCU. For more information, refer to Section 4, "Creating Schemas for Oracle SOA Suite and Oracle BAM".

- Password: Specify the password for the schema. You specified this password on the Schema Passwords Screen when creating the schemas using RCU. For more information, refer to Section 4, "Creating Schemas for Oracle SOA Suite and Oracle BAM".
- **DBMS/Service**: Specify the service name for your database. This is the database on which the schema resides.
- Host Name: Specify the name of the machine where your database is running.
- **Port**: Specify the database listen port number.

Click Next.

7. Test Component Schema Screen

Verify that the connections to your data sources are successful.

Click Next.

8. Select Optional Configuration Screen

Do not select anything on this screen.

Click Next.

9. Configuration Summary

Verify the information on this screen. Use the navigation pane on the left or the **Previous** button if you want to return to a previous screen to alter some portion of the configuration.

If everything is correct, click **Create**.

10. Creating Domain Screen

When the domain has been successfully created, the progress bar will be at 100% and the **Done** button will be active.

The last line in the summary information is the URL of the Administration Server. You should make a note of this URL so that you can access the Administration Server after it has been started.

Click **Done** to dismiss the Configuration Wizard.

7.3 Verifying Your Configuration

At this point, you should see the directory structure shown in Figure 5 (refer back to Figure 2 to see the complete system topology).

Middleware Host Middleware Home /home/Oracle/Middleware WebLogic Server Home SOA Oracle Home Oracle Common Home jdk160_27 wlserver_10.3 Oracle_SOA1 oracle_common Domain Home Application Home soa_domain soa_domain WebLogic Domain Managed Server Administration Server soa_server1 Database Host Database with schemas.

Figure 5 Directory Structure After Oracle SOA Suite Configuration

This illustration shows the topology after Oracle SOA Suite is configured. It is described in the surrounding text.

8 Extending the WebLogic Domain and Configuring Oracle BAM

This section contains instructions for extending your existing WebLogic Domain to include Oracle BAM; if you do not want to configure Oracle BAM, skip this section and proceed to Section 9, "Post-Installation Tasks".

To extend your domain for Oracle BAM, start the Configuration Wizard (see Section 7.1, "Starting the Configuration Wizard"), then follow the instructions below:

1. Welcome Screen

Select Extend an Existing WebLogic Domain.

Click Next.

2. Select a WebLogic Domain Directory

Select the Domain home directory you created in Section 7.2, "Configuration Wizard Screens for Domain Creation".

3. Select Extension Source Screen

Select Extend my domain automatically to support the following added products, then select "Oracle Business Activity Monitoring - 11.1.1.0 [SOA_ORACLE_HOME]".

Click Next.

4. Configure JDBC Component Schema Screen

Configure the schema information for the Oracle BAM data source. Refer to the instructions for the same screen in Section 7.2, "Configuration Wizard Screens for Domain Creation" for more details.

Click Next.

5. Test Component Schema Screen

Verify that the connections to your data sources are successful.

Click Next.

6. Select Optional Configuration Screen

Do not select anything on this screen.

Click Next.

7. Configuration Summary

Verify the information on this screen. Use the navigation pane on the left or the **Previous** button if you want to return to a previous screen to alter some portion of the configuration.

If everything is correct, click **Extend**.

8. Creating Domain Screen

When the domain has been successfully extended, the progress bar will be at 100% and the **Done** button will be active.

Click **Done** to dismiss the Configuration Wizard.

8.1 Verifying Your Configuration

At this point, your topology should match the one shown in Figure 2; installation and configuration of Oracle SOA Suite and Oracle BAM is now complete.

For more information about configuring WebLogic Server domains, refer to *Oracle Fusion Middleware Creating Domains Using the Configuration Wizard*.

9 Post-Installation Tasks

This section contains general information that will help you verify your installation and configuration. Some components may require custom or manual configuration, and this information is also included in this section:

- Configuring Custom Port Numbers for Oracle BAM
- Launching the Servers
- Starting Node Manager
- Verifying the Installation

9.1 Configuring Custom Port Numbers for Oracle BAM

The default port number of the Oracle BAM managed server (bam_server1) is 9001. If, during configuration, you changed this port number or specified a listen address using the Configuration Wizard, you must make some manual changes.

For instructions, refer to "Configuring Oracle BAM with Custom Port Numbers" in Oracle Fusion Middleware Installation Guide for Oracle SOA Suite and Oracle Business Process Management Suite.

9.2 Launching the Servers

To get your deployments up and running, you must start the Administration Server and various Managed Servers:

To start the Administration Server, run the startWebLogic.sh (on UNIX operating systems) or startWebLogic.cmd (on Windows operating systems) script in the directory where you created your new domain.

On UNIX operating systems:

DOMAIN_HOME/startWebLogic.sh

On Windows operating systems:

DOMAIN_HOME\startWebLogic.cmd

You entered the domain name and location on the Specify Domain Name and Location Screen in the configuration wizard.

2. To start the Managed Servers, run the startManagedWebLogic.sh (on UNIX operating systems) or startManagedWebLogic.cmd (on Windows operating systems) script in the bin directory inside the directory where you created your domain.

This command also requires that you specify a server name. The servers that need to be started are:

soa_server1 (Oracle SOA Server)

bam_server1 (Oracle BAM Server)

For example, to start Oracle SOA Server on UNIX operating systems:

DOMAIN_HOME/bin/startManagedWebLogic.sh soa_server1 http://administration_server_host:administration_server_port

On Windows operating systems:

 $\label{logic.cmd} DOMAIN_HOME \verb|\bin\startManagedWebLogic.cmd| soa_server1 | http://administration_server_port \\ server_host: administration_server_port$

Before WebLogic Server is started, you will be prompted for the WebLogic Server username and password. These were provided on the Configure Administrator Username and Password Screen in the configuration wizard.

Note: If this is the first time that both Oracle SOA Server and Oracle BAM Server are being started after installation and configuration, you must make sure that your startup of Oracle SOA Server is complete before starting Oracle BAM Server.

If you do not know the names of the Managed Servers that need to be started, you can view the contents of the startManagedWebLogic_readme.txt file in the DOMAIN_ HOME directory.

Alternatively, you can also access the Administration Server console at the following URL:

http://administration_server_host:administration_server_port/console

Supply the username and password that you specified on the Configure Administrator Username and Password Screen of the Configuration Wizard. Then, navigate to **Environment > Servers** to see the names of your managed servers.

For more information about starting and stopping servers, see "Starting and Stopping Servers" in *Oracle Fusion Middleware Managing Server Startup and Shutdown for Oracle WebLogic Server*.

9.3 Starting Node Manager

Starting Node Manager on a machine that hosts Managed Servers allows you to start and stop the Managed Servers remotely using the Administration Console or the command line. Node Manager can also automatically restart a Managed Server after an unexpected failure.

To start Node Manager:

 On UNIX operating systems, run the MW_HOME/oracle_ common/common/bin/setNMProps.sh script.

On Windows operating systems, run the MW_HOME\oracle_common\ommon\bin\setNMProps.cmd script.

This script appends the required properties to the nodemanager.properties file. These properties can also be appended manually, or provided as command-line arguments.

Note: The StartScriptEnabled=true property is required for Managed Servers to receive proper classpath and command arguments.

The file containing the properties is nm.required.properties.

2. On UNIX operating systems, start Node Manager by running the WebLogic_ Home/server/bin/startNodeManager.sh script.

On Windows operating systems, start Node Manager by running the WebLogic_ Home\server\bin\startNodeManager.cmd script.

For more information about Node Manager, refer to *Oracle Fusion Middleware Node Manager Administrator's Guide for Oracle WebLogic Server*.

9.4 Verifying the Installation

Start your browser and enter the following URLs:

■ To access the Administration Server:

http://administration_server_host:administration_server_port

This information was visible on the Creating Domain Screen (the last screen) of the Configuration Wizard.

■ To access the Administration Server console:

http://administration_server_host:administration_server_port/console

You will be prompted for the username and password credentials that you specified on the Configure Administrator Username and Password Screen of the Configuration Wizard.

After you login to the console, click **Servers** in the "Environment" area inside "Domain Configuration" section. In the table on the Summary of Servers page, verify that the AdminServer, bam_server1, and soa_server1 all have the status "RUNNING" in the State column.

■ To access Enterprise Manager:

http://administration_server_host:administration_server_port/em

You will be prompted for the username and password credentials that you specified on the Configure Administrator Username and Password Screen of the Configuration Wizard.

10 Installing Oracle SOA Suite Design-Time Components

Oracle SOA Suite is not automatically installed with Oracle JDeveloper. Before you can create a SOA application and project, you must install the SOA Suite extension for JDeveloper.

For instructions on installing SOA Suite extension for JDeveloper, see *Oracle Fusion Middleware Installation Guide for Oracle JDeveloper*.

11 Deinstalling Oracle SOA Suite

Deinstalling Oracle SOA Suite from your system involves the following:

- Stopping Oracle Fusion Middleware
- Removing the Oracle SOA Suite Schemas
- Deinstalling Oracle SOA Suite
- Deinstalling Oracle WebLogic Server
- Performing Post-Deinstallation Tasks on Windows Operating Systems

You should always use the instructions provided in this section for removing the software. If you try to remove the software manually, you may experience problems when you try to reinstall the software again at a later time. Following the procedures in this section will ensure that the software is properly removed.

11.1 Stopping Oracle Fusion Middleware

Before deinstalling Oracle Fusion Middleware software components, you should stop all servers and processes.

1. Stop the WebLogic Managed Servers.

On UNIX operating systems:

 ${\tt DOMAIN_HOME/bin/stopManagedWeblogic.sh} \ \ managed_server_nanme \ \ administration_server_url \ \ administration_server_username \ \ administration_server_password$

On Windows operating systems:

DOMAIN_HOME\bin\stopManagedWeblogic.cmd managed_server_nanme administration_server_url administration_server_username administration_server_password

2. Stop WebLogic Administration Server.

On UNIX operating systems:

DOMAIN_HOME/bin/stopWeblogic.sh administration_server_url administration_server_username administration_server_password

On Windows operating systems:

DOMAIN_HOME\bin\stopWeblogic.cmd administration_server_url administration_server_username administration_server_password

For both commands, specify the administration_server_url using the following format:

 $\verb|http://administration_server_host.administration_server_domain:administration_server_port|$

For more information about starting and stopping Oracle Fusion Middleware, refer to "Starting and Stopping Oracle Fusion Middleware" in *Oracle Fusion Middleware Administrator's Guide*.

For more information about starting and stopping servers, see "Starting and Stopping Servers" in *Oracle Fusion Middleware Managing Server Startup and Shutdown for Oracle WebLogic Server*.

11.2 Removing the Oracle SOA Suite Schemas

Run the Repository Creation Utility (RCU) to drop the Oracle SOA Suite schemas from your database.

11.2.1 Starting RCU

Start RCU as described in Section 4.1, "Downloading and Starting RCU".

11.2.2 Instructions for Dropping the SOA Suite Schemas

Follow the instructions below to drop the SOA Suite schemas:

1. Welcome Screen

Click Next.

2. Create Repository Screen

Select Drop.

Click Next.

3. Database Connection Details Screen

Provide the following credentials to connect to your Oracle database. These are the same credentials you provided on this screen when you created the SOA Suite schemas. See Section 4.2, "Following the RCU Screens for Schema Creation" for more information.

Click **Next**. A "Checking Prerequisites" screen will appear. If there are errors, some details about the error will be displayed on the Database Connection Details Screen. Fix the error messages and click **Next** again.

After the checking is complete with no errors, click **OK** to dismiss the screen.

4. Select Components Screen

Select the prefix and schemas you want to drop from the repository.

Click **Next**. A "Checking Prerequisites" screen will appear. If there are errors, some details about the error will be displayed on the Select Components Screen. Fix the error messages and click **Next** again.

After the checking is complete with no errors, click **OK** to dismiss the screen.

5. Summary Screen

Click **Drop**. A "DROP" screen will appear. If there are errors, some details about the error will be displayed on the Summary Screen. Fix the error messages and click **Next** again.

After the schemas are dropped with no errors, click **OK** to dismiss the screen.

6. Completion Summary Screen

Click Close.

11.3 Deinstalling Oracle SOA Suite

Deinstalling Oracle SOA Suite involves removing the SOA Oracle home and also the Oracle Common home directories.

The deinstaller will attempt to remove the Oracle home from which it was started. This procedure will not remove any WebLogic domains that you have created - it only removes the software in the Oracle home.

Before you choose to remove your SOA Oracle home, make sure that it is not in use by an existing domain, and also make sure you stop all running processes that use this Oracle home. After you remove the software, you will no longer be able to use your WebLogic domain.

11.3.1 Deinstalling the SOA Oracle Home

To start the deinstaller, navigate to the <code>SOA_ORACLE_HOME/oui/bin</code> (on UNIX operating systems) or <code>SOA_ORACLE_HOME/oui/bin</code> (on Windows operating systems) directory and start the deinstaller.

On UNIX operating systems:

./runInstaller -deinstall

On Windows operating systems:

setup.exe -deinstall

On Windows operating systems, you can also start the deinstaller from the Start menu by selecting **Programs > Oracle SOA 11g - Home1 > Uninstall**.

Follow the instructions below to remove the installed software.

1. Welcome Screen

Click Next.

2. Deinstall Oracle Home Screen

Verify the Oracle home you are about to deinstall.

Click **Deinstall** to continue.

A warning dialog box will appear. Click **Yes** to confirm that you want to proceed with the deinstallation and remove the Oracle home directory.

3. Deinstallation Progress Screen

This screen shows the progress and status of the deinstallation. No action is required; the installer will automatically advance to the next screen when deinstallation is complete.

4. Deinstallation Complete Screen

Click Finish.

5. On Windows operating systems, manually remove the Oracle home directory (even if you answer **Yes** in the warning dialog box).

For example, if your Oracle home directory is

C:\Oracle\Middleware\Oracle_SOA1, then you should navigate to the C:\Oracle\Middleware directory, right-click on the Oracle_SOA1 folder, and select **Delete**.

11.3.2 Deinstalling the Oracle Common Home

This section describes how to remove the oracle_common directory. This directory contains its own deinstaller in oui/bin (on UNIX operating systems) or oui\bin (on Windows operating systems), just like any other Oracle home directory.

To start the deinstaller, navigate to the MW_HOME/oracle_common/oui/bin (on UNIX operating systems) or MW_HOME\oracle_common\oui\bin (on Windows operating systems) directory and start the deinstaller.

On UNIX operating systems:

./runInstaller -deinstall

On Windows operating systems:

setup.exe -deinstall

After the deinstaller is started, follow the instructions below to remove the Oracle Common home:

1. Welcome Screen

Click Next.

2. Select Deinstallation Type Screen

Select Deinstall Oracle Home.

Click Next.

3. Deinstall Oracle Home Screen

Verify the Oracle home you are about to deinstall.

Click Next to continue.

A warning dialog box will appear. Click **Yes** to confirm that you want to proceed with the deinstallation and remove the Oracle home directory.

4. Deinstallation Progress Screen

This screen shows the progress and status of the deinstallation. No action is required; the installer will automatically advance to the next screen when deinstallation is complete.

5. Deinstallation Complete Screen

Click Finish.

6. On Windows operating systems, manually remove the Oracle Common home directory (even if you answer **Yes** in the warning dialog box).

For example, if your Oracle Common home directory is C:\Oracle\Middleware\oracle_common, then you should navigate to the C:\Oracle\Middleware directory, right-click on the oracle_common folder, and select **Delete**.

11.4 Deinstalling Oracle WebLogic Server

To deinstall Oracle WebLogic Server:

1. Start the deinstaller from the uninstall directory inside the WebLogic home. You specified the location of the WebLogic home directory on the Choose Product Installation Directories Screen in Section 5, "Installing Oracle WebLogic Server and Creating the Middleware Home".

On UNIX operating systems:

./uninstall.sh

On Windows operating systems:

```
uninstall.cmd
```

On Windows systems, you can also start the deinstaller from the Start menu by selecting **Programs > Oracle WebLogic > Uninstall Oracle WebLogic**.

2. Welcome Screen

Click Next.

3. Choose Components Screen

By default, all components are selected.

Click Next.

4. Uninstalling WebLogic Platform Screen

Click Done.

5. Manually remove the Middleware home directory.

For example, if your Middleware home directory was /home/Oracle/Middleware on a UNIX operating system:

```
> cd /home/Oracle
> rm -rf Middleware
```

On a Windows operating system, if your Middleware home directory was C:\Oracle\Middleware, use a file manager window and navigate to the C:\Oracle directory, then right-click on the Middleware folder and select **Delete**.

11.5 Performing Post-Deinstallation Tasks on Windows Operating Systems

If you are using a Microsoft Windows operating system, perform the following after the software is removed:

- Section 11.5.1, "Removing the Program Groups"
- Section 11.5.2, "Rebooting Your System"

11.5.1 Removing the Program Groups

On Windows operating systems, you must manually remove the program groups from the Start Menu\Programs folder. As an example (the folder names and program group names on your system may be different), you might remove the following from C:\Document and Settings\All Users\Start Menu\Programs:

- Oracle Fusion Middleware 11.1.1.6.0
- Oracle SOA 11g Home1
- Oracle WebLogic

11.5.2 Rebooting Your System

On Windows operating systems, you should reboot your computer after you have finished removing all your programs to ensure proper cleanup.

12 Additional Resources

For additional information, refer to the *Oracle Fusion Middleware Installation Guide for Oracle SOA Suite and Oracle Business Process Management Suite*, which is available on the Oracle Fusion Middleware 11g Documentation page at

http://www.oracle.com/technetwork/middleware/fusion-middleware/documentation/index.html.

Printed documentation is available for sale through your Oracle representative or in the Oracle Store at http://oraclestore.oracle.com.

To download free release notes, installation documentation, white papers, or other collateral, visit Oracle Technology Network (OTN). You must register online before using OTN; registration is free and can be done at

http://www.oracle.com/technology/membership/.

If you already have a username and password for OTN, then you can go directly to the documentation section of OTN at

http://www.oracle.com/technetwork/indexes/documentation/.

12.1 Oracle Support Services

If you purchased Oracle Product Support, you can call Oracle Support Services for assistance. Oracle Support Services include phone assistance, version updates and access to our service offerings. You have access to phone support 24 hours a day, 7 days a week. In the U.S.A., you can call Product Support at 1-800-223-1711.

Make sure you have your CSI (CPU Support Identifier) number ready when you call. Keep the CSI number for your records, because it is your key to Oracle Support Services. The Oracle Store sends the CSI number to you in an e-mail alert when it processes your order. If you do not have your CSI number and you are in the U.S.A., you can look up your CSI number by accessing our online Order Tracker which provides detailed order information. Go to the Oracle Store and click on Order Tracker located above the top navigation bar.

For Oracle Support Services locations outside the U.S.A., call your local support center for information on how to access support. To find the local support center in your country, visit the Support Web Center at http://www.oracle.com/support.

At the Support Web Center you will find information on Oracle Support Services, such as:

- Contact Information
- Instructions for Accessing Electronic Services
- Helpful Web Sites
- Support Resources
- Oracle Support Portfolio
- Oracle Support Services news

With Oracle Product Support, you have round-the-clock access to My Oracle Support (formerly Oracle MetaLink), Oracle Support Services premier Web support offering. My Oracle Support offers you access to installation assistance, product documentation, and a technical solution knowledge base.

It has technical forums, where you can post questions about your Oracle products and receive answers from Oracle Technical Support Analysts and other Oracle users. The questions and answers remain posted for the benefit of all users.

My Oracle Support options include:

- Technical Assistance Request (TAR) access
- Patch Downloads
- Bug Database Query Access
- Product Life-Cycle Information

You can access My Oracle Support at http://support.oracle.com.

12.2 Version Updates

If you do not have a currently supported license, you can purchase the most recent version of an Oracle product from the Oracle Store at

http://oraclestore.oracle.com.

If you do have a currently supported license, you can place non-urgent requests for version update shipments through the iTAR feature on My Oracle Support. You will need to log the iTAR type as a U.S. Client Relations/Non-Technical Request.

You can also request Version Update shipments in the U.S.A. by calling Client Relations. When requesting a Version Update, provide the following information to the Client Relations Analyst:

- CSI Number
- Contact Information
- Platform
- Product Name
- Shipping Address
- Product Version Number

Outside the U.S.A., call your local Oracle Support Center.

12.3 Premium Services

For information on our Premium Services, including onsite support, OracleGOLD, remote services, and upgrade packages, visit the Support Web Center at http://www.oracle.com/support.

You can also call your Support Sales Representative in the U.S.A at 1-800-833-3536.

12.4 Quick Reference

For quick access to additional information, refer to Table 4:

Table 4 Links to Additional Information and Resources

I want to	Contact Information or Web Site
Purchase additional products, full-use licenses, version updates, and documentation in the U.S.A.	http://oraclestore.oracle.com
Access technical resources for developers.	http://www.oracle.com/technology
Access installation documentation.	http://www.oracle.com/technology/documentation
Access information about technical support.	http://www.oracle.com/support
Locate local Oracle Support Centers outside the U.S.A.	http://www.oracle.com/support
Locate local Oracle offices outside the U.S.A.	http://www.oracle.com/global
Call Client Relations in the U.S.A.	1-800-223-1711
Speak with your sales representative in the U.S.A.	1-800-ORACLE-1
Locate TTY Access to technical support in the U.S.A.	1-800-446-2398

13 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at

http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit

http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Oracle Fusion Middleware Quick Installation Guide for Oracle SOA Suite 11g Release 1 (11.1.1.6.0) F14318-05

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